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Contents

Article Titles & authors	Pages
Team of this issue	
Contents	1-2
Exploring Teacher's Perspectives about Online Assessment during the COVID-19 Pandemic in a Saudi Context Muhammad A. Al Roomy	3-16
Bidikmisi Students' Perspectives on Online Distance Learning during Covid-19 Pandemic Lockdown at Sriwijaya State Polytechnic Lutfi Asyari, Abdurrahmansyah & Welly Ardiansyah	17-39
MALL Instructional Course Design: Constructing Out-of-Class Experience Anzhelika Solodka, Liliia Ruskulis, Olha Demianenko & Svitlana Zaskaleta	40-55
Saudi Female EFL Teachers' Cognition and Practices Regarding Online Corrective Feedback in Speaking Class Reem Essa Aloud	56-69
An Exploration of Students' Willingness to Communicate in Thai EFL Online Classroom Pathaya Punyaporn & Kittitouch Soontornwipast	70-87
EFL Students' Attitudes towards Using Online Learning during Covid-19: Applying Technology Acceptance Model Rabab Mizher, Kholoud Amoush & Asma Alwreikat	88-103
The Impact of Designing an Electronic Course of Computer Uses on Developing Academic Achievement and Creative Thinking in a Saudi University Wadha Shabib Ali Alotaibi	104-120
Taking the Wave of Digitalization: Reflection on the Psychological Readiness of Teachers in Using Information and Communication Technologies Benmansour Souheyla & Benmansour Nassima	121-135
The Effects of the Covid-19 Pandemic Sequestration Period on Sight Translation Female Students' Academic Performance at King Khalid University Ali Albashir Mohammed Alhaj & Mesfer Ahmed Mesfer Alwadai	136-145
Integrating Mobile Games in Arabic Orthography Classrooms Muna Al-Razgan & Hind M. Alotaibi	146-165
Raising Algerian Master's Students' Self-awareness towards Using Learning Strategies during Online Classes at Abdelhamid Ibn Badis University of Mostaganem Melouka ZIANI	166-176
Gamifying ESL Classrooms through Gamified Teaching and Learning Nur Syafiqah Yacob, Siti Fatimah Abd. Rahman, Syamsul Nor Azlan Mohamad, Azwin Arif Abdul Rahim, Khadijah Khalilah Abdul Rashid, Abdulmajid Mohammed Abdulwahab Aldaba, Melor Md Yunus & Harwati Hashim	177-191
Saudi EFL University Students' perceived Linguistic Gains and Learning Experiences in Flipped Classrooms Aishah Naem Ahmed Al-Amri	192-204

Contents

Higher Education in Times of Pandemic: An Exploration of Teachers and EFL Learners' Perceptions of the Shift to Online Instruction Option Fatma ZAGHAR	205-213
Teaching and Learning English as a Foreign Language Speaking Skills through Blackboard during COVID-19 Fawaz Al Mahmud	214-230
Effects of Auto-Correction on Students' Writing Skill at Three Different Universities in Sulaimaneyah City Kozhin Omer Ismael, Kochar Ali Saeed, Airin Shwan Ibrahim & Diya Shawkat Fatah	231-245
The Effect of Explicit Training of Metacognitive Reading Strategies on Online Reading Comprehension Parastoo Babashamasi, Sedigheh Shakib Kotamjani & Nooreen Binti Noordin	246-261
Artificial Intelligence in Language Learning: What Are We Afraid of Kushmar Lesia Viktorivna, Vornachev Andrii Oleksandrovysh, Korobova Iryna Oleksandrivna & Kaida Nadia Oleksandrivna	262-273
An Analytical Investigation of Flipped Classroom to Improve Saudi EFL Learners' Speaking Skills: a Case Study at Applied College Hebah Asaad Hamza Sheerah & Meenakshi Sharma Yadav	274-298
Online Language Assessment the Exception, Not the Rule: For Inclusive Language Learning Vipin K Sharma & Wael A. Holbah	299-313
A Systemic Functional Linguistic and Critical Discourse Analysis of A Selected Speech on COVID-19 Zahraa Khaleel Ghali Al-Badri & Suadad Fadhil Kadhim Al-Janabi	314-329
Towards an Advanced Interactive E-learning for the Language Mohammed Abou Adel	330-340

Exploring Teacher's Perspectives about Online Assessment during the COVID-19 Pandemic in a Saudi Context

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Abstract

The emergency transition to online learning due to COVID-19 has forced many sectors to respond quickly. The readiness of educational institutes to attend to the abrupt crisis and shift to teach remotely is practiced at different levels. Online assessment is one of them. Rapid advances in technology and software applications are changing the practices of assessment in innumerable ways. Teachers are encouraged to implement a diverse array of assessment methods to measure the learning process of their students in an online environment which may not be the same as conventional learning. Therefore, the current study aims to explore teachers' perspectives about online assessment during the COVID-19 pandemic in a Saudi context. This study endeavours to shed light on this aspect of online assessment by answering the main question of challenges and benefits faced by English teachers in an online environment. The study was qualitative in nature deploying semi-structured interviews with English instructors to collect data about the researched matter. The findings revealed that the most preferred online assessment tool teachers used to implement was the multiple-choice format. Also, the analysis showed that challenges associated with online assessment were diverse, and some of them were handled appropriately while others remained. For the advantages, they worked in favour of teachers, students and department. This was observed in the opportunities online assessment could provide to save time, easiness to design, take and record and objectivity in marking. Implications and recommendations were offered for further direction and research.

Keywords: assessment methods, COVID-19, online learning, online assessment, teachers' perceptions, Saudi context

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Introduction

The COVID-19 pandemic has affected students' learning at different levels because of the full closure of schools and universities globally. In Saudi Arabia and other countries, there was a transition to embrace online learning as a solution to prevent the spread of the disease and to ensure the continuity and flexibility of learning. For this reason, both teachers and students implemented various online platforms such as Blackboard, Microsoft Teams, Zoom and others while they were staying home. Saudi Arabia's schools and universities closed on March 9, 2020, because of the COVID-19 pandemic and switched to online classes. Online learning is defined as "online access to learning resources anywhere and anytime" (Holmes & Gardner, 2006, p. 14). However, there are many educational issues that have to be reconsidered as a result of the rapid transition to online learning including but not limited to methods of teaching and learning, language learning activities, technical problems that students encounter, lack of social interactions, cheating among students and assessment tools (Bakerson, Trottier, & Mansfeild, 2015; Richardson & North, 2013, Rahmani, 2021).

All assessment procedures take place online including constructing and taking exams and ending with recording and disseminating results and finally supporting testees with feedback. What makes the situation worse is that the experience of online learning and assessment was new to both teachers and students. The nature of online assessment is different and unique in some of its aspects from face-to-face classrooms and requires the implementation of multiple assessment methods (Shohamy & Mary, 2017). Alexander (2021), as a response, confirms that faculty members and the staff who assist them need to be more creative and innovative i.e., making use of the emerging technologies such as learning soft wares and learning management systems. By providing students with novel distance learning solutions they enjoy, their role would turn to be active leading to a better learning environment while maintaining teaching quality and assessment fairness (Cheriguene; Kabache; Kerrache; Calafate; & Cano, 2022).

At all education levels, students are put in a competitive environment and endeavour to score high grades to pursue their studies. One of several challenges associated with online assessment is that it is not suitable for students who have the temptation to cheat especially if it is taken online. Unfortunately, the majority of teachers prefer the summative assessment they used to employ during regular classes, and more specifically, they prefer to employ multiple-choice examinations. They do not think of any other tools as a compliment. More importantly, the minister of education in Saudi Arabia has declared on different occasions that online teaching after the pandemic will be a strategic goal for the future of the Saudi educational system, and it will not be just a substitute in case of emergencies. That means online assessment will go hand in hand with online learning, i.e., a high level of integration technology in teaching and a high level of using online assessment. There are several studies carried out in a Saudi context examining online assessments that used questionnaires for collecting data (e.g., Almossa & Alzahrani, 2022; Al Tameemy, Alrafaee, & Alalwi, 2020; Al-Waid, 2022). Although this study is added to the voluminous list of COVID-related studies, to the best of the researcher's knowledge, no study has been conducted in a Saudi context that deploys interviews with teachers to collect data regarding online assessment. Upon the completion of the study, it is hoped to gain deeper insight from data collected from teachers who would offer more detail and rich responses. Therefore, this study aims to identify teachers' perspectives about online assessment during the COVID-19 pandemic in a Saudi context.

The study was qualitative in nature deploying semi-structured interviews with English instructors to collect data about the researched matter. Two rounds of interviews took place with each of the 12 participants, i.e., a major interview and a follow-up interview, to clarify and provide more evidence after transcribing the first interview. This study has four research questions:

1. What were the assessment methods you implemented while conducting the online assessment?
2. What were the challenges you encountered while conducting an online assessment?
3. How did you attend to these challenges?
4. What were the benefits of conducting online assessments?

Literature Review

Online Teaching and Learning

Online learning is increasingly becoming an alternative to traditional education, offering new learning experiences through various online courses and programmes. It is defined as “online access to learning resources anywhere and anytime” (Holmes & Gardner, 2006, p. 14). Anthanaryanan (2015) stressed that the “online” is used synonymously with other phrases like ‘e-learning’, ‘network learning’, “Internet learning” and many more, still he maintains that “online learning is interpreted and understood from a variety of perspectives depending on delivery mechanism, communication modalities” (p. 3).

However, providing students with opportunities to learn virtually means that some aspects of learning are not the same as those in traditional classrooms. Vaughan et al. (2013) highlighted this issue by saying “the pioneering innovation of virtual communication and community requires both teachers and students to engage, interact, and contribute to learning in new ways” (p. 14). They elaborate that learning virtually requires different types of engagements and does not necessarily lead to deep and meaningful learning unless learners play multiple roles and take shared responsibilities. Aspects of engagement should also include the extent to which students can actively interact with the content of the learnt material (Catalano, 2018). According to Wright (2014), the absence of the social presence of students creates a sort of isolation and can negatively affect student–teacher interaction, as “the verbal and non-verbal clues that support student instructor interaction in face-to-face situations are not present in online environment” (p. 17).

As online learning is distinct from learning onsite, Holmes and Gardner (2006) suggested a framework of key principles or skills that e-learning includes, as it requires different types of engagements: select, explore, test, collaborate, analyse, create, discuss, apply, understand, synthesise, promote and search.

Online Assessment: Definitions and Features

Assessment is an integral part of the process of teaching and learning. It mainly enables both teachers and students to determine the effectiveness of what they are doing and therefore the progress that has been achieved. Harmer (2015) elaborated on this and stated,

Assessment can, and should, be an integral part of what teachers do. When used appropriately, it helps the students to understand what they can and cannot do, and by doing this helps them move forward and see clearly what they need to do next. At its most basic

level, this assessment of learning is the kind of thing that teachers do all the time when they give feedback on what their students say or write. (p. 408)

It is clear from the above quote that assessment is an on-going process and it is not restricted to examination. Teachers need to observe how their students are progressing from time to time to act accordingly.

Miller et al., (2009) raised another issue about assessment in education it is not the business of schools alone, but the public is integrated as an active player. Some tests and exams are monitored or constructed while or after graduation by other institutions like education and the evaluation commission.

When referring to assessment, 'assessment' and 'evaluation' are used by many interchangeably. A distinction should be made between the two because evaluation is a broader term, and assessment is just one form of it. While assessment focuses on mastery level or students' performance, evaluation takes steps further and includes other learning components like course materials, methods of teaching, educational policies and assessment tools. Moreover, some types of assessment may not be suitable to assess certain fields. For example, language assessment creates another challenge for language testees because assessment practices are influenced by theories and definitions of language proficiency. This requires multiple procedures that complete one another since language knowledge is an intricate phenomenon (Shohamy & Mary, 2017).

While assessing students, there are two main types, i.e., formative and summative assessments, to improve and gauge students' learning process and see how far the courses' objectives have been met. The former measures students' learning to track and monitor their academic progress and is regarded as an on-going process. It is for learning, as the main focus of it is to identify areas that students are struggling with to act accordingly but not to measure what has been achieved. Both teachers and students are involved in this process (Bonanno, 2015). Providing simple immediate feedback to students in the classroom is a form of formative assessment and an important aspect of teaching. The feedback given to students helps to identify their readiness to learn and therefore enables teachers to adjust their own teaching practices that cater to students' needs (Griffith & Care, 2014). In this respect, teachers use the target language to facilitate learning as well as a means to interact with students. For this reason, teachers should reserve the room for questions in teaching to allow learners' participation and language production (Richards et al., 1994). The latter measures the product of students' learning and is conducted at the end of a course or semester as a midterm or final exam. Unlike formative assessment, which is integrated into the learning-teaching process, summative assessment is separate and done apart from teaching, i.e., teachers are not required to assess their students' performance all the time, and assessment is about learning (Miller et al., 2009). However, many definitions have been given to the term 'assessment'. Miller et al. (2009) provided a detailed definition of assessment as follows:

Assessment is more than a collection of techniques, however. It is a systematic process that plays a significant role in effective teaching. it begins with the identification of the learning goals, monitors the progress students make toward those goals, and end with a judgment concerning the extent to which those goals have been attained. (p. 26)

Miller et al., 2009, in the above quote, assure that the utmost benefit of assessment is gained if teachers succeed in systemise the process, making sure that the objectives of the learnt materials have been matched and researched before making the final judgments.

Chen and Bonner (2019) defined assessment as the process of gathering information and maintain that unlike other forms of assessment, the goal of classroom assessment is to promote learning. Also, Angelo and Cross (1993), in their definition of classroom assessment, suggested that the primary focus of assessment is on learning rather than teaching, and to get the best assessment, both teachers and students have to interact together to make necessary changes in the learning process. They stated, "Classroom Assessment is an approach designed to help teachers find out what students are learning in the classroom and how well they are learning it" (p. 4). Also, Bakerson et al. (2015) provided another definition and mentioned what assessment includes and its aim of it "It is used to measure knowledge, skills, dispositions, or beliefs gleaned through instructional sequences, with an aim to improve" (p. 4).

It is evident from the above definitions that there is no single technique to gauge students' achievement, and assessment is comprehensive in nature to reach value judgment. Assessment goes into a cycle and not only focuses on the end product.

However, online assessment is a dominant issue in the online learning environment. Several discussions have emerged regarding the efficiency of online assessment and its practices in classrooms (Angelo & Cross, 1993; Azevedo & Azevedo, 2018; Becker, Becker & Becker, 2022; Conrad & Openo, 2018; Pu & Xu, 2021).

Online assessment is thought to influence the motivation of learners by shaping their expectations about learning and, therefore how they adjust their learning needs depending on these expectations (Azevedo & Azevedo, 2018). Conrad and Openo (2018) doubted the ability of traditional forms of assessment to measure distance learning. They state that all questions raised related to traditional forms of assessment that occur in face-to-face learning are applicable with online learning, such as why assessment is important and what aspect of learning we have to assess through different activities, but with online learning, it would be more difficult to assess tasks students have learnt at a distance. Becker et al., (2022) add that students' common anxieties about online assessment are caused by their lack of experience and the fear of getting low marks. To overcome this they state "if you are feeling nervous about the technical aspects of assessment, then getting help early on is a wise move" (p.2). Griffith and Care (2014) discussed the capacity of new technologies to assess traditional academic disciplines and 21st-century skills students need in the workplace after graduation, such as critical thinking skills, problem-solving skills, technology information skills and so on. According to Azevedo and Azevedo (2018), the most common assessment method is multiple-choice questions although there are some good tools teachers can use, such as matching, true or false and open-ended questions.

There are other methods used for assessment such as using rubrics and synchronous or asynchronous discussions with students (Bakerson et al., 2015; Richardson & North, 2013). Still, many problems are associated with an online assessment along with technical problems like the difficulty to deter students from cheating or practicing plagiarism and lack of experience (Lock &

Redmond, 2015). Some practices might mitigate the effects of such problems. For example, teachers can use higher-order thinking skills questions or certain programmes like Turnitin to control cheating (Bakerson et al., 2015). Other online assessment problems are associated with students' anxieties and increasing workload on faculty members, especially in the phases of development and implementation as St-Onge et al., (2022) suggest and they maintain 'The implementation of e-assessment in HE is fraught with challenges, which might explain why HE institutions have shied away from integrating technology to their assessment practices(p. 351).

The final point is that to ensure Online Assessment Efficiency, it should be incorporated into the curriculum as Bakerson et al., (2015) hold:

The success of quality online learning environments depends on the usage of prompt and well-delivered assessment; therefore, it is important to consider assessment as an integral part of the course that when used properly has immediate effects on student learning. (p.14)

It is evident from the previous account that assessment is essential for both teachers and students if it is properly planned and implemented. In the case of online assessment, the matter becomes more challenging because what seems to work in face-to-face classrooms may or may not work virtually. In the following section, researchers have tried to study different dimensions of online assessment in different contexts.

Studies on Assessment in an Online Environment

Pu and Xu (2021) conducted a study to investigate changing assessment practices in the online teaching environment of EFL school teachers. The study revealed that teachers tended to overdo assessment in online teaching mode more than they used to in traditional mode, and they also varied among assessment methods. However, they did this systematically and did not incorporate their assessment methods into the online curriculum because they were unaware of the nature of online teaching.

In the Saudi context, and more specifically in higher-education institutions, Almossa and Alzahrani (2022) carried out a study to examine the assessment practices of faculty members in Saudi universities belonging to different colleges and fields. The study looked at understanding how assessment practices changed and affected the way of teaching during the COVID-19 pandemic. The findings showed that some assessment practices were favoured over others, such as providing feedback, making a connection between learning objectives and learning outcomes, implementing scoring guides and monitoring and revising assessment tools. The least favoured assessment practices included mapping summative assessment to curriculum expectations and considering cultural and linguistic diversity among students. Finally, formative assessment was rarely utilised and the different preferences and needs of assessment that faculty members adopted were based on their colleges and fields.

Al Tameemy et al., (2020) explored the difficulties and opportunities of implementing Blackboard electronic tests to gauge students' writing skills. The results indicated that the majority of students had positive attitudes towards using e-assessment in testing their English proficiency and writing skills. Students were interested in using Blackboard testing and found it easy and

effective with no serious difficulties except for a few technical problems. In a similar study, Al-Waid (2022) did a study to determine the competency of English instructors in the online teaching–learning and assessment process. The findings revealed that EFL teachers were competent and experienced enough and had different digital skills in online assessment. Also, male teachers were more qualified and eager to implement teaching and online assessment compared to female teachers.

Byrne et al. (2021) discovered how some novice instructors who received no prior training on how to construct online assessments managed to implement various assessment strategies. The results revealed that because institutional and departmental support was extremely limited, instructors encountered real problems to switch from face-to-face assessment mode to online assessment. As a result, instructors resorted to professional learning networks which were beneficial such as peer communities of practice, the academic Twitter community and students' feedback.

Singh (2021), in their study of alternative assessment strategies that EFL teachers implemented, found that teachers deployed different alternative assessment strategies including integrated alternative assessment, formative assessment, summative assessment, self-assessment, peer assessment and portfolio assessment. But the most preferred assessment strategy was summative assessment in the classroom. The study added that some teachers were reluctant to use some of the assessment strategies because they lacked knowledge and training on how to use them. Also, online learning put pressure on and became challenging to both students and parents. In several studies, parents reported that although online learning has some advantages to students like enabling them to attain self-regulated and digital socialisation skills, it can lead to social isolation, less active role, increased screen time, disturbing routines, changing routines, changing relationships and losing sports and extracurricular activities (Vanderhout et al., 2020; Misirli et al., 2021). Some assessment frameworks were implemented to ensure the efficiency of the online assessment. Jaam et al. (2021) used the assessment design decisions framework (ADDF) where six aspects of assessment should be acknowledged. These included purposes of assessment, the context of assessment, learner outcomes, tasks, feedback processes and interactions. It was found that such a framework was beneficial for both teachers and students and also catered to the interaction between educators and stakeholders to make sure that the assessment design is fully understood and suitable for students. All the above studies are relevant to my study. However, no single study was found in a Saudi context that deployed interviews with teachers to collect data regarding online assessment.

Methods

Participants

Eight coordinators and co-coordinators in addition to four supervisors of four English courses, i.e., reading, writing, grammar and communication skills, were interviewed. They were chosen as participants because all exams were unified, and they were in charge of constructing them. The participants willingly shared their experiences of giving online assessments such as online quizzes, midterms and final exams to Saudi university students enrolled in an English programme during the COVID-19 pandemic. The reason behind choosing those specific participants was that all exams were unified, and those

Research Instruments

This study used a qualitative research approach, specifically semi-structured interviews, to collect data. While conducting interviews, the researcher can gain a better understanding and in-depth information about the researched matter. The interviewees can talk freely and give elaborate answers with reasons (Creswell & Poth, 2016).

Research Procedures

Data collection and analysis proceeded simultaneously. Data were gathered from two rounds of interviews with each of the 12 participants, i.e., a major interview and a follow-up interview, to clarify and provide more evidence after transcribing the first interview. All classes were delivered to students online via Blackboard, and all faculty members were encouraged to use it to teach or to switch to Microsoft Teams if there was a problem with Blackboard. Also, all quizzes and exams were unified, taken online and prepared by coordinators and co-coordinators. Although learning was remote, the coordinators, co-coordinators as well as supervisors were requested to be onsite to tackle any learning issues or technical problems and respond to students' inquiries. Students contacted coordinators by e-mail or mobile. A total of 16 interviews ranging from 15 to 20 minutes was recorded while the researcher took some notes.

For data analysis, the inductive and deductive data analysis procedure was utilised (Creswell & Poth, 2016). In the first-round interviews, the information gathered was transcribed, read and categorised into smaller units and given initial themes. The information was processed by working back and forth between themes and was finally given the appropriate comprehensive themes. In the second process of data analysis, data were examined deductively to see if the evidence provided under each theme was convincing or if additional information was examined to support the argument. This took place in the second round of interviews. After analysing data and themes were coded from the first-round interviews, some pieces of talk needed more clarification, and the researcher looked for in-depth information to gain insight into the meanings that interviewees held about different issues. Four themes were identified and related to the research questions. Each of these themes was defined into subthemes.

Findings

Interviews data obtained from teachers about online assessment during the COVID-19 showed that these teachers implemented different assessment methods as presented in Table one.

Table 1. *Teachers' common online assessment methods*

Common online assessment methods
Multiple-choice questions
Reflective writing
Graded homework

Also, data indicated that these teachers encountered several challenges and found ways to tackle them as displayed in Table two.

Table 2. *Teachers' challenges to online assessment and solutions*

Challenges to online assessment

Lack of experience
 Technical issues
 Time commitment
 Monitoring students
 Students' cheating
 Test anxiety
 Self-discipline
 No flexibility
 Less concentration
 Lack of motivation

Solutions to the problems

Making sure that the internet is working
 Make-up worksheets and quizzes
 Support teams
 Using e-mails and smartphones

Finally, teachers gained several benefits from utilising online assessments as shown in Table three.

Table 3. *Teachers' perspectives about the benefits of online assessment*

Common online assessment methods
Audio-graded system
Save the time of students
Objectivity of scoring
Moving from theory to practice
Implementing blended learning

The three tables provide a summary of the main findings of themes and subthemes that emerged from the teachers' interviews. It is apparent from the above tables that teachers used only three assessment tools to measure their students' performance, giving priority to multiple-choice questions. In addition, there were more diverse challenges encountered by English instructors compared to opportunities. Also, instructors reported that they handled problems associated with online assessment in several ways, and that was done individually or with the help of others. Finally, for opportunities to utilise online assessment, instructors referred to some benefits but with less confidence, and they mentioned the reasons behind that as revealed in the excerpts mentioned below. In the discussion section, the findings are more examined with direct quotes from the conducted interviews.

Discussion

While answering the first research question ('What were the assessment methods you implemented while conducting online assessment?'), instructors gave only three assessment tools to gauge students' progress. The most common tools were multiple choices followed by reflective writing, and the least common was graded assignment, which agrees with the findings of Almosa and Alzahrani (2022), Azevedo and Azevedo (2018) and Singh (2021). One coordinator, in the interview, asserted, 'I use multiple choice questions and all my quizzes and exams go like that'; when he was asked later for the reason, he added, 'In regular classes, students were familiar to

this, we do this and it is easy to mark'. In this account, it is evident that the choice of the assessment tool is influenced by the instructor's belief about what makes tests look good.

Another tool was reflective writing where students were asked by a writing instructor to record what they had learnt in the previous topic and share their learning experiences in the coming class. But the instructor who used this technique noticed his students were not motivated to take part, and he explained, 'Other instructors do not do this because it is not counted and it was time-consuming, all assessment techniques should be unified'. Another supervisor provided his students with a third assessment tool, but he stopped doing this later: 'At first, I used to give them weekly assignments but I quit because students were copying from each other.

However, what was unusual about online assessment is how students were assessed in a writing course. In all writing courses, exams were provided in a multiple-choice format and mainly focused on the technical part of writing. Writing instructors gave different reasons, such as 'it is demanding to ask students to write a piece of writing and correct it on screen'. Another instructor elaborated that 'if we want to correct all pieces of writing that means we need at least three days, marks should be released immediately after the exam'. It is clear that all instructors afterward limited themselves to the multiple-choice format, which falls under summative assessment (Griffith & Care, 2014; Conrad & Openo, 2018). Instructors did not vary or recognise the value of using multiple assessment tools (Shohamy & Mary, 2017). Moreover, it seems that they focused on the cognitive domain of assessment not considering the other two domains, i.e., behavioural and affective (Leong et al., 2018).

Concerning the second research question ('What were the challenges you encountered while conducting online assessment?'), the first challenge instructors raised was that they lacked experience in constructing online exams and faced many technical problems. They maintained, 'We had not received any training to work remotely, we had not received any training as well to conduct online exams'. The same situation applies to students, as an instructor stated that 'when chatting with my students, I discovered that the majority of them did not experience online assessment before except few who graduated from international schools.

Another concern was the time commitment instructors had to give because they complained that before the exam they had to respond to students' e-mails or messages they post on Blackboard, and during the exam, they had to monitor students and give access to latecomers or extend time if any technical problem was present. Lack of engagement was another issue faced by many (Vaughan et al., 2013). In a writing course, an instructor expressed his worry by saying, 'I feel I need to repeat myself many times, I had to meet students online individually after the mid-term to give feedback, there is no face-to-face interaction'. He said that in face-to-face classes, he used to give feedback in front of the class once because students often shared the same mistakes. Also, he added that in face-to-face interaction, students were more motivated to learn from their mistakes and learn from each other. The final issue was the impossibility to prevent students from cheating. They mentioned that although they utilised the features offered on Blackboard while constructing exams, students found ways to cheat.

However, it was observed that the supervisors of each course shared almost the same concerns and raised the same issues, but they added to their concerns the procedural part of the online assessment. They had to report to the head of the English department before, during and after taking the exams and keep them up-to-date in case there was any problem. They gave responses like 'the make-up exam should be ready in advance, if anyone missed or failed the exam' and 'instructors should design test earlier and allow themselves plenty of time to draft it before it is finalised', 'instructors should post in the Blackboard all instructions students need and keep in touch with each group leader' and 'all coordinators and co-coordinators should be present at all times while taking exams'.

In attending to the third research question ('How did you attend to these challenges?'), instructors offered several solutions to pivot online assessment. For example, one instructor said that 'before negotiating the timing of the exam, I had to contact the IT service and make sure that there is no maintenance in the afternoon'. Another replied, 'I use every possible way to be in connection with my students, sometimes I give a call to the group leader'. One useful way some instructors reported was the assistance of a support team. Some IT experts were asked to be onsite to offer help and work with coordinators, especially in the first semester. For the final research question ('What were the benefits of conducting online assessment?'), instructors reported some opportunities although they expressed their worries about some challenging aspects of online learning. For example, they all agreed that online assessment had some useful parts such as auto-grading, the objectivity of marking, ease of taking attendance and the possibility of combining online learning with face-to-face learning later. An opportunity that all instructors shared was the capacity of online assessment to save instructors' time and students' time as well as the department which was chasing to disseminate grades. An instructor stated, 'In regular classes, some students waste time in exams by asking questions, but in online exams, they all were focused to complete the exam'. Another replied, 'Because lectures were recorded, it was easier for absent students to catch up on what they missed and to listen to the feedback'.

In another response, a supervisor raised the issue of cheating again when he referred to benefits by saying 'online assessment is easy to correct, but how can assess the progress of students if they cheat, it is better to take onsite exams'. Yet for online assessment to be effective, it has to be incorporated with online curricula (Pu & Xu, 2021) and not rely on assessment tools implemented in face-to-face assessment (Griffith & Care, 2015).

Conclusion

This study aimed to explore teachers' perspectives about online assessment during the COVID-19 pandemic in a Saudi context. The results indicated that although few instructors implemented few assessment methods, the most dominant one was the multiple-question format. The instructors mentioned the reasons behind this, but it seems that the major reason was that all exams were unified, and if any sort of change would take place, all instructors had to agree on that in advance. Also, the study found that instructors reported several challenges to online assessment including lack of experience, technical problems and the difficulty to deter cheating. For online assessment, instructors highlighted several advantages such as its capacity to save the time of both instructors and students, easiness to design, take and record and subjectivity. However, while they were inclined to utilise online learning, they were also suspicious about conducting an online

assessment. Finally, it is recommended for teachers to incorporate blended learning into the curriculum and take advantage of the experiences they had with online teaching when things are back to normal.

About the Author

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References

- Al-Awaid, S. A. A. (2022). Online education and assessment: Profiling EFL teachers' competency in Saudi Arabia. *World Journal of English Language*, 12(2), 1–82. <https://doi.org/10.5430/wjel.v12n2p82>
- Alexander, B. (2021). *Transforming digital learning and assessment: A guide to available and emerging practices and building institutional consensus*. Stylus Publishing, LLC.
- Almossa, S. Y., & Alzahrani, S. M. (2022). Assessment practices in Saudi higher education during the COVID-19 pandemic. *Humanities and Social Sciences Communications*, 9(1), 1–9. <https://doi.org/10.1057/s41599-021-01025-z>
- AlTameemy, F. A., Alrefae, Y., & Alalwi, F. S. (2020). Using blackboard as a tool of e-assessment in testing writing skill in Saudi Arabia. *Asian ESP*, 16(6.2)183-202.
- Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.). San Francisco: Jossey-Bass.
- Ananthanarayanan, V. (2015). Social presence in culturally mediated online learning environments. In R.D. Wright (Ed), *Student-teacher interaction in online learning environments* (pp. 1–21). IGI Global.
- Azevedo, A., & Azevedo, J. (Eds.). (2018). *Handbook of research on e-assessment in higher education*. IGI Global.
- Bakerson, M., Trottier, T., & Mansfield, M. (2015). The value of embedded formative assessment: An integral process in online learning environments implemented through advances in technology. In S. Koc, X. Liu, & P. Wachira, (Eds.), *Assessment in online and blended learning environments* (pp. 3–20).
- Becker, L., Becker, F., & Becker, A. (2022). *Acing Online Assessment: Your Guide to Success*. SAGE.
- Bonanno, P. (2015). Assessing technology-enhanced learning—A process-oriented approach. In S. Koc, X. Liu, & P. Wachira, (Eds.), *Assessment in online and blended learning environments* (pp. 39–53).
- Byrne, V. L., Hogan, E., Dhingra, N., Anthony, M., & Gannon, C. (2021). An exploratory study of how novice instructors pivot to online assessments strategies. *Distance Education*, 42(2), 184–199. DOI: 10.1080/01587919.2021.19116241057/s41599-021-01025-z
- Catalano, A. J. (2018). *Measurements in distance education: A compendium of instruments, scales, and measures for evaluating online learning*. Routledge.

- Chen, P. P., & Bonner, S. M. (2019). A framework of classroom assessment for learning and self-regulation, –*Assessment in education: Principles, policy & practice*, 27(4) 373-393. <https://doi.org/10.1080/0969594X.2019.1619515>
- Cheriguene, A., Kabache, T., Kerrache, C. A., Calafate, C. T., & Cano, J. C. (2022). NOTA: a novel online teaching and assessment scheme using Blockchain for emergency cases. *Education and Information Technologies*, 27(1), 115-132. <https://doi.org/10.1007/s10639-021-10629-6>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Conrad, D., & Openo, J. (2018). *Assessment strategies for online learning: Engagement and authenticity*. Athabasca University Press.
- Griffin, P., & Care, E. (Eds.). (2014). *Assessment and teaching of 21st century skills: Methods and approach*. Springer.
- Harmer, J. (2015). *The practice of English language teaching*. Pearson Longman.
- Holmes, B., & Gardner, J. (2006). *E-learning: Concepts and practice*. Sage.
- Jaam, M., et al., (2021). Using assessment design decision framework in understanding the impact of rapid transition to remote education on student assessment in health related colleges: A qualitative study. *PLoS ONE*, 16(7), e0254444. <https://doi.org/10.1371/journal.pone.0254444>
- Leong, W. S., Ismail, H., Costa, J. S., & Tan, H. B. (2018). Assessment for learning research in East Asian countries. *Studies in Educational Evaluation*, 59, 270–277. <https://doi.org/10.1016/j.stueduc.2018.09.005>
- Lock, J. V., & Redmond, P. (2015). Empowering learners to engage in authentic online assessment. In S. Koc, X Liu, & P. Wachira (Eds.), *Assessment in online and blended learning environments*, (pp. 21-38). Charlotte, NC: Information Age Publishing.
- Miller, D., Linn, R. L., & Gronlund, N. E. (2009). *Measurement and assessment in teaching* (10th ed.). USA: Kevin M. Davis, 26-46.
- Misirli, O., & Ergulec, F. (2021). Emergency remote teaching during the COVID-19 pandemic: Parents experiences and perspectives. *Education and Information Technologies*, 26(6), 6699–6718. <https://doi.org/10.1007/s10639-021-10520-4>
- Pu, S., & Xu, H. (2021). Examining changing assessment practices in online teaching: A multiple-case study of EFL school teachers in China. *The Asia-Pacific Education Researcher*, 30(6), 553–561. <https://doi.org/10.1007/s40299-021-00605-6>
- RAHMANI, A. (2021). Shifting towards Online Assessment: A New Promising Gate in the Higher Educational Level. *Arab World English Journal (AWEJ) Special Issue on CALL* (7) 217- 238. DOI: <https://dx.doi.org/10.24093/awej/call7.16>
- Richards, J. C., Richards, J. C. R., & Lockhart, C. (1994). *Reflective teaching in second language classrooms*. Cambridge University Press.
- Richardson, R., & North, M. (2013). Strengthening the trust in online courses: A common sense approach. *Journal of Computing Sciences in Colleges*, 28(5), 266–272.
- Shohamy, E., Or, I. G., & May, S. (Eds.). (2017). *Language testing and assessment*. Springer.

- Singh, C. K. S. et al., (2021). Exploring ESL teachers' alternative assessment strategies and practices in the classroom. *Journal of Language and Linguistic Studies*, 18(1), . 411-426.
- St-Onge, C., Ouellet, K., Lakhal, S., Dubé, T., & Marceau, M. (2022). COVID-19 as the tipping point for integrating e-assessment in higher education practices. *British Journal of Educational Technology*, 53(2), 349-366. DOI: [10.1111/ bj et .1316 9](https://doi.org/10.1111/bj et .13169)
- Vanderhout, S. M., Birken, C. S., Wong, P., Kelleher, S., Weir, S., & Maguire, J. L. (2020). Family perspectives of COVID-19 research. *Research Involvement and Engagement*, 6(1), 1–3. <https://doi.org/10.1186/s40900-020-00242-1>,
- Vaughan, N. D., Cleveland-Innes, M., & Garrison, D. R. (2013). *Teaching in blended learning environments: Creating and sustaining communities of inquiry*. Athabasca University Press.
- Wright, R. D. (Ed.). (2014). *Student-teacher interaction in online learning environments*. IGI Global.

Bidikmisi Students' Perspectives on Online Distance Learning during Covid-19 Pandemic Lockdown at Sriwijaya State Polytechnic

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Abstract

During the outbreak of the Covid 19 pandemic, educational systems around the world had been disrupted, and as a result, lecturers and Bidikmisi students had to conduct teaching and learning processes from home. This study aimed to investigate the perspectives of Bidikmisi students on online distance learning during the lockdown at Sriwijaya State Polytechnic due to the Covid 19 pandemic. The study was carried out with the mixed method. The researchers asked 85 students from two different intensive English courses to complete a five-point Likert scale questionnaire on the Online Learning Environment Survey (OLES), and answer six open-ended questions distributed using google form. The sample comprised 85 bidikmisi students from nine departments– not only Engineers in civil, mechanical, chemical, computer, electrical and computer information systems, but also Business Administration, Accounting, Informatics Management, and English. The finding of this study revealed that some of bidikmisi students positively accepted this online distance learning, but most of them negatively revealed that bidikmisi students faced some challenges with online distance learning; they preferred face-to-face classes. The study concluded with a recommendation that the findings of this study can assist policymakers and lecturers in developing effective or efficient teaching strategies for overcoming tough situations or pandemics, particularly for bidikmisi students.

Keywords: bidikmisi students, Covid-19 pandemic, distance learning, Indonesia context, online learning, Sriwijaya State Polytechnic, students' perceptions,

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Introduction

A significant impact of the COVID-19 pandemic can be seen on all aspects of social life, including education. By establishing a learning policy through the Ministry of Education and Culture, the government has minimized the spread and mitigated the impact of the virus, namely learning from home, in all countries (United Nation, 2020). Even if teachers and students do not interact directly at school, such a regulation allows the teaching and learning process to continue. Without having to leave their homes, teachers and students can still provide instructional materials and receive lessons. The effect of the policy is that the learning system undergoes a change from face-to-face to online. The global coronavirus pandemic has had a significant impact on the teaching-learning process in higher education institutions, as well as on teacher-student interaction. All educational institutions are required to conduct all of their activities with students solely online. The widespread relocation of classrooms to students' homes potentially change students' perceptions of this kind of instruction (Coman et al., 2020). In addition, the Minister of Education and Culture of the Republic of Indonesia has issued a circular regarding how teachers should be able to provide learning that is relevant to pandemic circumstances, rather than simply following curriculum guidelines.

The Ministry of Research, Technology, and Higher Education in 2010, in collaboration with the Directorate-General for Education and Student Affairs, initiated the program of Tuition Fee Assistance for Bidikmisi students, i.e tuition assistance for students who potentially have good academic from economically disadvantaged families to finish their studies in college on excellent courses to graduate on time.

Bidikmisi is a government scholarship that is specifically allocated for impoverished students with good and future abilities. Online learning has caused many students to complain, which they found to be unproductive and difficult to adjust to the lecturer's approaches. Students complained not only about the limited quota if they were forced to use conferencing as a lesson technique, but also the unstable internet connection in their house which make them worried. Several students admitted that they were not particularly excited about the lectures.

Research Questions

The main objective of this study is to examine the perspectives of bidikmisi students have when learning online during the covid-19 pandemic's lockdown period. This study addresses that gap by investigating the following research questions: What are the bidikmisi students' perspectives about computer usage, teacher support, student interaction and collaboration, personal relevance, authentic learning, student autonomy, equity, contentment, synchronicity, the greatest benefit of online distance learning, the greatest drawback of online distance learning, positive and negative experiences with online distance learning, the rank of the effectiveness of online distance learning, and the preferences of class format.

Literature Review

Bidikmisi

The bidikmisi program, run by Directorate General of Learning and Student Affairs at the Ministry of Research, Technology and Higher Education, is aimed at improving access to higher education for new students. Program bidikmisi is a tuition price stimulus program for selected new students

with good aptitude but financial difficulties due to their parents' poor financial status. The Bidikmisi program is held every year to enhance access to higher education.

Bidikmisi is a program run by Directorate-General for Learning and Student Affairs of the Ministry of Research, Technology and Higher Education since 2015. Prospective students who pass the Polytechnic or University Entrance Examination and are verified as Bidikmisi recipients for Undergraduate degree, Associate Degree (D4) programs of up to 8 semesters, and associate degree lasting up to 6 semesters, receive a Bidikmisi program. Since 2016, the scholarship amount is Rp6.300.000,00 (six million and three hundred thousand rupiah) per semester, divided into Rp2.400.000,00 (two million and four hundred thousand rupiah) per semester and Rp650.000,00 (six hundred and fifty thousand rupiah) per student per month, for a total of Rp3.900.000,00 (three million and nine hundred thousand rupiah) per semester.

The objectives of the bidikmisi program are as follows: (a) to improve the learning motivation and learning achievement of prospective students, especially those experiencing financial difficulties; (b) to improve access and learning opportunities in a higher education institution for students who have no money but who have excellent academic potential; (c) to subsidize tuition for prospective / students who meet the eligibility requirements to enroll and complete a diploma / degree course on time; (d) to improve student performance, both in the curriculum, co-curricular and extra-curricular; (e) to have the unintended consequence of students and prospective students continually improving their performance and remaining competitive; (f) to promote independent and productive graduates who are also socially engaged and (g) to enable them to participate in the end of the poverty chain and guidelines for community development / implementation of the mission goal (Kemenristekdikti, 2016).

The purpose of bidikmisi expansion, according to Rahayu and Suwanda (2015), was to encourage poor communities with high academic potential to enroll in higher education, hoping to produce human resources that can contribute to poverty reduction and community development.

Online Learning during the Covid-19 Pandemic

The Covid-19 became widely known and had a significant impact on schooling. Many countries, including Indonesia, have passed regulations prohibiting all educational activities, compelling the government and connected institutions to create alternative educational opportunities for students and students who are unable to complete their education in educational institutions.

Universities were forced to carry out their activities with students completely online as a result of the pandemic (Wu, 2020). Online learning varies from traditional or other forms of learning in that it focuses not only on instruction but also on personalized learning. To put it another way, traditional education is more teacher-centered, whereas online learning has led to a shift toward a student-centered education (Oye, Salleh & Iahad, 2012).

This paradigm shift may cause changes in students' perceptions of this method of instruction, and some elements may be viewed as potential barriers in students' learning processes, such as decreased motivation, delayed feedback or assistance because teachers are not always

present when students need help while studying, or feelings of isolation due to the absence of peers' physical presence.

Online Learning Issues during the COVID-19 Pandemic

Online learning offers individuals educational environments independent from time and space (Bilgiç & Tüzün, 2015). However, technology integration is sometimes problematic for institutions (Ertmer, 1999). Additionally, student barriers to online learning may include misinterpretation of expectations, time management, interpersonal communication, while lecturer barriers can involve expectations identification, providing feedback, and interpersonal relations (Davis, Gough & Taylor, 2019). Additionally, delay in responses, skepticism of their peers' supposed expertise, feeling of isolation, difficulties collaborating with their peers, technical problems, issues associated with lecturer behavior and higher attrition rates are seen as barriers to online learning (Muthuprasad et al., 2021).

Among the major factors that determine the implementation of online learning, Zhong (2020) identifies insufficient access, the availability of the internet and students' ability to participate in digital learning, and the lack of proper interaction with lecturers. The use of virtual classes is not suitable for students with kinesthetic learning styles. Online learning also lacks the socialization found in traditional classrooms.

The digital learning world allows students to communicate with their friends digitally, but they cannot meet with them directly. Thus, the sharing of ideas, knowledge and information is partly missing (Britt, 2006). A second finding from the current survey that is in accordance with previous research (O'Malley & McCraw, 1999) was that online students struggle with learning as much as they used to in face-to-face classes. Classroom activities were also more engaging than online classes. In a recent study, Jeffrey, Milne and Suddaby (2014) found that online classes are awkward for students.

Online Learning Environment Survey

In comparison to other tools that have been used to evaluate students' impressions of the actual and preferred online learning environment in the institution, the OLES instrument is the most recently produced online learning environment evaluation tool. Trinidad, Aldridge, and Fraser (2005) created the Online Learning Environment Survey (OLES) to examine students' impressions of online learning in mixed courses. OLES comprises nine scales; Computer Usage (CU), Teacher Support (TS), Student Interaction and Collaboration (SIC), Personal Relevance (PR), Authentic Learning (AL), Student Autonomy (SA), Equity (EQ), Contentment (C), and Synchronicity (S).

Table 1. *Description of each scale in the OLES*

Scale	Description
Computer Usage	The extent to which students are aware of one another and are willing to help and encourage one another.
Lecturer Assistance	The extent to which the teacher makes friends, trusts and cares for his students.
Student Interaction & Collaboration	The degree to which students pay attention in class, participate in discussions, complete extra work, and enjoy it.

Personal Relevance	The importance of completing planned actions and remaining focused on the topic at hand.
Authentic Learning	The importance placed on inquiry skills and methods, as well as their use in problem-solving and investigation.
Student Autonomy	On learning tasks, the amount to which students cooperate rather than compete with one another.
Equity	The lecturer's ability to treat all students equally.
Synchronicity	The extent to which lecturers differentiate students based on their abilities, learning pace, and interests.
Contentment	The extent to which students appreciate learning in a particular environment.

Research Design

This research study used a mixed-method design. Quantitative data were obtained through an online survey and the qualitative data were obtained through open interview questions. The research paradigm necessitates the collection and analysis of quantitative and qualitative data to gain a better understanding in answering the research questions explored in the study (Malik & Hamied, 2016). It is in line with Creswell (2009) who states that mixed methods research is a process of research in which the researchers integrate qualitative and quantitative methods of data collection and analysis to best understand a research purpose.

Mixing quantitative and qualitative data in such a way that research topics are meaningfully explained is one of the major advantages of integrating post-positivism and interpretivism in a mixed-methods design. Fetters (2016) notes that mixed-methods designs incorporate philosophical frameworks for understanding complex research issues. Also, it enables an in-depth understanding of smaller cases, and provides a logical grounding and methodological flexibility (Maxwell, 2016). Researchers can, therefore, use mixed-methods in order to answer research questions in a way that is adequate in terms of depth and breadth (Enosh, Tzafir, & Stolovy, 2014) and helps generalize findings to the general public.

Research Procedures

In this study, quantitative data collection was carried out by administering open and closed questions to 85 bidikmisi students via Google Form. The first survey was Online Learning Environment Survey (OLES) consisted of nine scales. Bidikmisi students of Sriwijaya State Polytechnic were asked to rate items using Likert scales of frequency. The second survey dealt with six open interview questions. The surveys were distributed through WhatsApp, both through the personal WhatsApp and WhatsApp group of Bidikmisi students. Meanwhile, qualitative data are analyzed through semi-structured interviews via video conferencing and mobile phone applications.

Data Collection Instruments

In order to compile the quantitative data, the researchers used Online Learning Environment Survey (Pearson & Trinidad, 2005), consisting of 54 statements of 9 scales covering Computer Usage, Lecturer Assistance, Student Interaction & Collaboration, Personal Relevance, Authentic Learning, Student Autonomy, Equity, Contentment, and Synchronicity. Bidikmisi students were asked to indicate their 'actual' and 'preferred' experience with components of online learning. It was constructed using Likert scales of frequency, Always, Frequently, Quite Often, Sometimes

and Never. To find out more about bidikmisi students' perspectives towards online distance learning conducted by lecturers at Sriwijaya State Polytechnic during the COVID-19 pandemic, the researchers also employed open-questionnaire comprising six questions about the greatest benefit of online distance learning, the greatest drawback of online distance learning, the positive experience of online distance learning, the negative experience of online distance learning, the rank of online distance learning effectiveness, and the class format students prefer.

Participants

This research was carried out in 2021 with Bidik Misi students at the Sriwijaya State Polytechnic. The sample consisted of 85 Bidik Misi students. All bidikmisi students in the study were in the second semester of the nine departments – Civil Engineering, Mechanical Engineering, Chemical Engineering, Computer Engineering, Business Administration, Accounting, Informatics Management, Electrical Engineering, and English.

The gender breakdown of the valid surveys consisted of 51 males and 34 females. The majority of respondents were from the 17-19 age group (Figure 1).

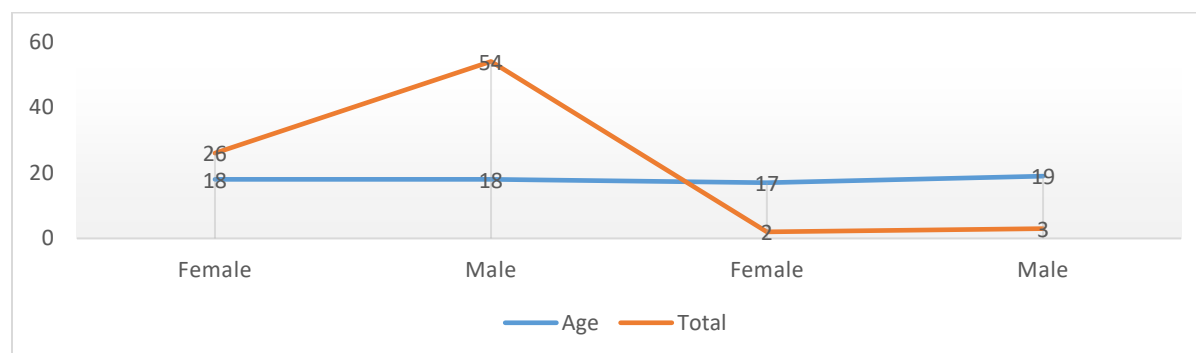


Figure 1. Number and age range of students (N=85)

The students in this survey were enrolled across nine departments, with the majority from the Accounting Department, followed by Business Administration Department. The smallest group was from the English Department.

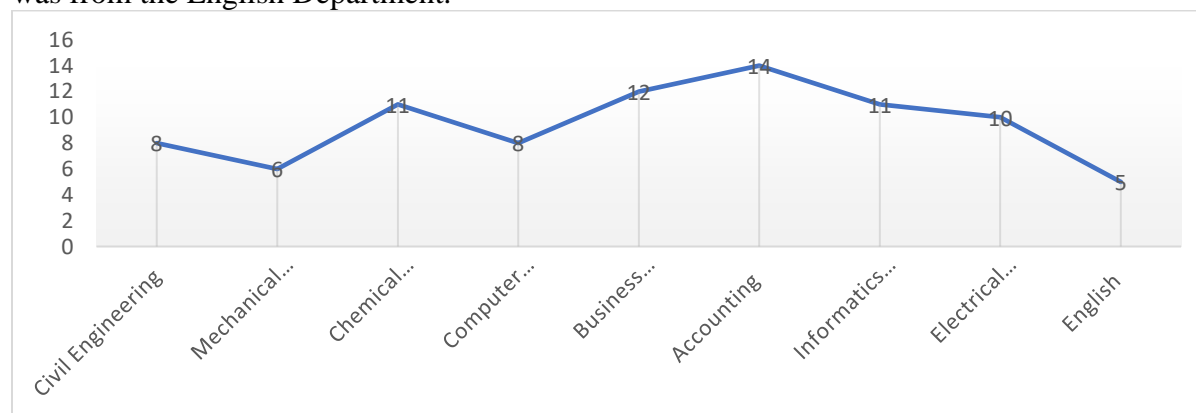


Figure 2. Discipline area of students (N=85)

Data Analysis

The data from college students' closed-ended questionnaire was statistically computed with SPSS version 26 for Windows to find out the percentage of each statement and then was interpreted descriptively. The interview data were analyzed to relate the perception of college students toward online learning. The results of the survey and interview were employed to recognize college students' perceptions of online learning during the Covid-19 pandemic, mainly their English teaching and learning processes.

Findings

The Online Learning Environment Survey was completed by 85 students in total (OLES). After being collected, the data underwent a condensing step. The data set contained information about students' computer usage, lecturer assistance, student interaction & collaboration, personal relevance, authentic learning, student autonomy, equity, contentment, synchronicity, and six open interview questions about the greatest benefit of online distance learning, the greatest drawback of online distance learning, the positive experience of online distance learning, the negative experience of online distance learning, and six open interview questions about the greatest benefit of online distance learning, the greatest drawback of online distance learning, the positive experience of online distance learning, the negative experience of online distance learning, the rank of online distance learning effectiveness, and the class format students prefer. As a result, the data displays are depicted in the following figures.

The findings pertaining to the research questions on Bidikmisi students' perceptions of the use of online learning platforms in the English as a Foreign Language (EFL) classroom are presented and discussed in this part. The results in the tables are interpreted in light of the interview results in the following discussion. The findings of the study came from 85 individuals, including 34 female and 51 male college students. The students have been using LMS for about a year. The online learning platform of LMS is employed for the English teaching and learning process, according to the college students.

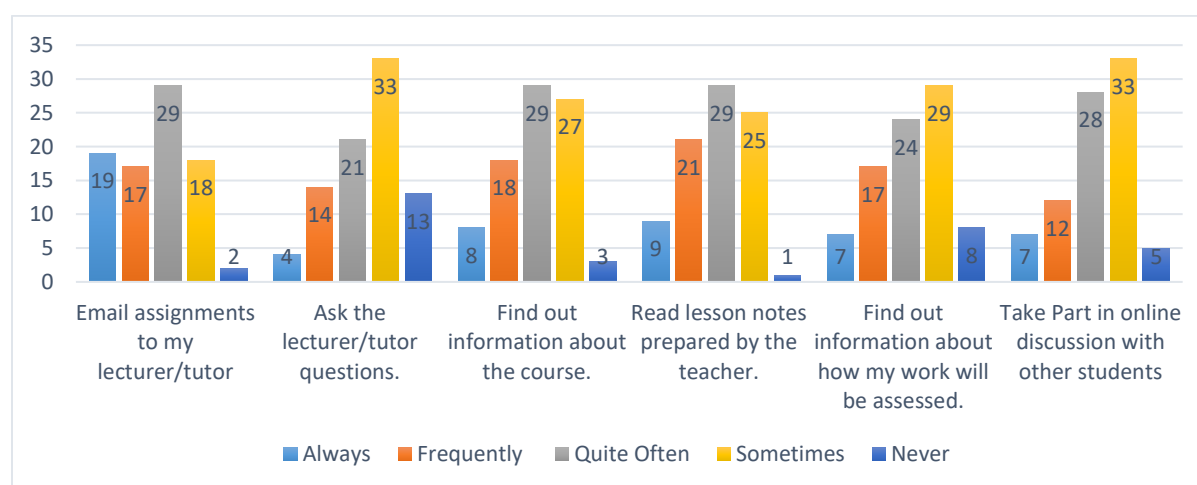


Figure 3. Computer usage

As shown in figure 3, 34.12% reported *quite often*, 22.35% responded *always*, 21.18% said *sometimes*, 20% felt *frequently*, and 2.35% informed *never* concerning the uses of computers to send email assignments to their lecturers.

In examining whether students asked their lecturers some questions during the teaching and learning process in the online learning, 38.82% reported *sometimes*, 24.71% said *quite often*, 16.47% felt *frequently*, 15.29% claimed *always*, and 4.71% informed *never*. While responding to the question of whether students found out information about the course, 34.12% reported *quite often*, 31.76% informed *sometimes*, 21.18% said *frequently*, 9.41% claimed *always*, and 3.53% revealed *never*.

In examining whether students read lesson notes prepared by lecturers, 34.12% said *quite often*, 29.41% reported *sometimes*, 24.71% claimed *frequently*, 10.59% felt *always*, and only 11.18% responded *never*.

When asked how often they find out how their work would be evaluated, 34.12% said *sometimes*, 28.23% said *quite often*, 20% said *frequently*, 8.23% said *always*, and 9.41% said *never*.

In order to see if students participated in online discussions with other students, 38.82% felt *sometimes*, 32.94% said *quite often*, 14.12% reported *frequently*, 8.23% felt *always*, and 5.89% claimed *never*.

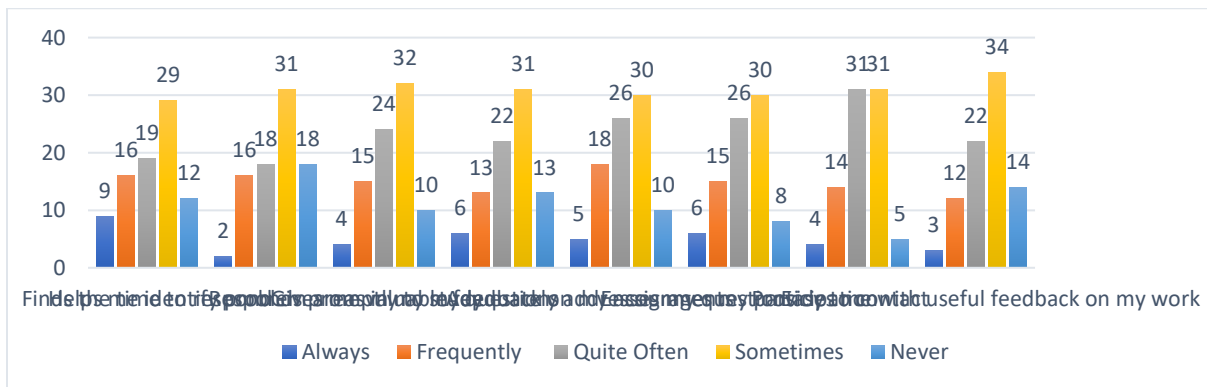


Figure 4. Lecturer assistance

Referring to figure 4, 34.12% reported *sometimes*, 22.35% responded *quite often*, 18.82% said *frequently*, 14.12% claimed *never*, 10.58% informed *always* concerning their lecturers' taking time to respond to the students.

In examining whether lecturers helped students identify problem areas in their study, 36.47% reported *sometimes*, 21.18% claimed *quite often*, 21.18% reported *never*, 18.82% said *frequently*, and 2.35% reported *always* to help them identify problem areas in their study. While responding to the question of whether lecturers responded promptly to their questions, 37.65% reported *sometimes*, 28.23% responded *quite often*, 17.65% claimed *frequently*, 11.76% said *never*, and 4.70% informed *always*.

In examining whether lecturers give students valuable feedback on their assignments, 36.47% said *sometimes*, 25.88% reported *quite often*, 15.29% claimed *frequently*, 15.29% informed *never*, and only 7.06% claimed *always*.

While reporting about whether lecturers adequately address their questions, out information about how their work will be assessed, 35.29% reported *sometimes*, 30.59% felt *quite often*, 21.18% said *frequently*, 11.76% claimed *never*, and 5.88% informed *always*. In examining whether lecturers encouraged students to participate, 35.28% reported *sometimes*, 30.58% felt *quite often*, 17.65% *frequently*, 9.41% said *never*, and 7.06% responded *always*.

While responding to the question of whether lecturers are easy to contact, 36.47% reported *sometimes*, 36.47% felt *quite often easy*, 16.47% claimed *frequently*, 5.88% felt *never easy*, and 4.70% informed *always*.

In examining whether lecturers provided students with useful feedback on students' works, 40% reported *sometimes*, 25.88% felt *quite often*, 16.47% said *never*, 14.12% informed *frequently*, and 3.53% claimed *always*.

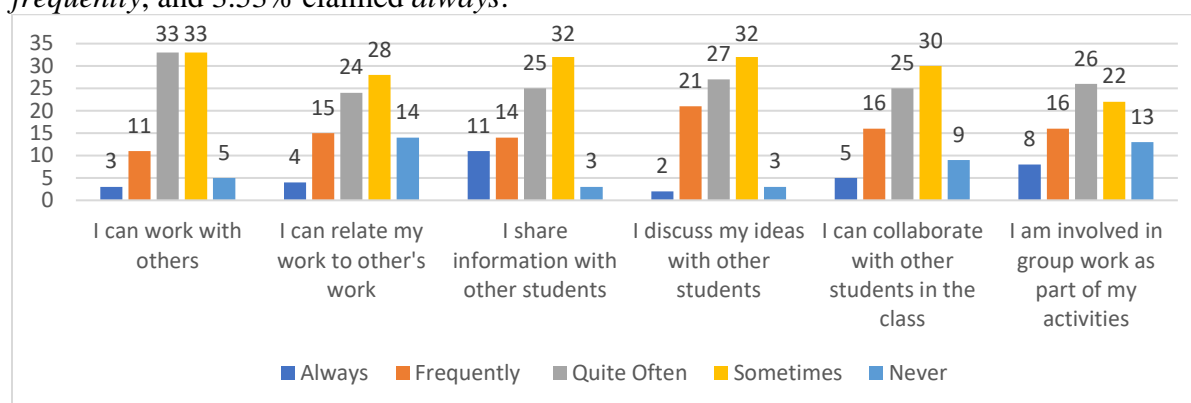


Figure 5. Student interaction & collaboration

Referring to figure 5, 38.83% said *sometimes*, 38.83% said *quite often*, 12.94% said *often*, 5.88% said *never*, 3.53% felt *always* that during the Covid-19 pandemic they could still work virtually with others.

When asked if they could relate their work to others, 32.94% responded *sometimes*, 28.23% said *quite often*, 17.65% said *frequently*, 16.47% said *always*, and 4.70% said *never*. While responding to the question of whether students share information with other students, 37.65% responded *sometimes*, 29.41% claimed *quite often*, 16.47% felt *frequently*, 12.94% claimed *never*, and 3.53% reported *always*.

Dealing with discussing their ideas with other students, 37.65% felt *sometimes*, 31.76% said *quite often*, 24.71% claimed *frequently*, 3.53% responded *never*, and 2.35% reported *always*.

When asked if they can cooperate with other students in the class, 35.29% replied *occasionally*, 29.41% said *sometimes*, 18.82% said *frequently*, 10.59% said *never*, and 5.88% stated *always*.

When asked if they do group work as part of their activities, 30.59% said they do it *quite often*, 25.88% said they do it *sometimes*, 18.81% said they do it *frequently*, 15.29% said they *never* do it, and 9.41% said they *always* do it.

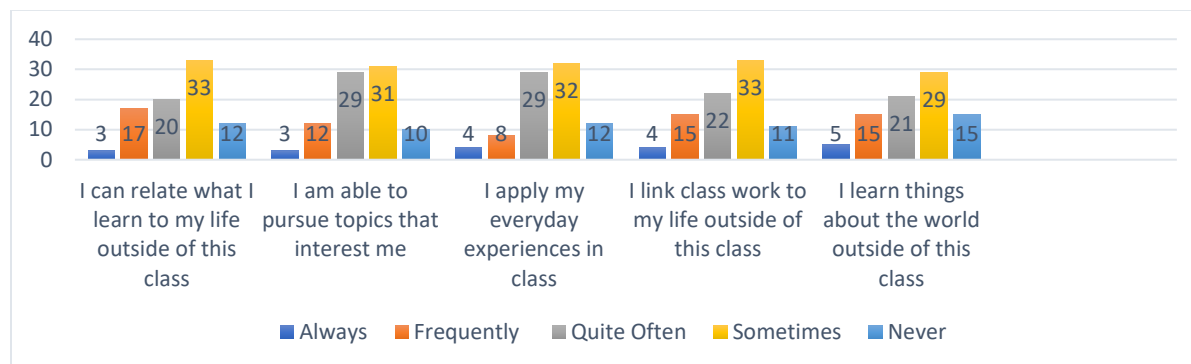


Figure 6. Personal relevance

Referring to figure 6, 3.53% reported *always*, 20% said *frequently*, 23.53% felt *quite often*, 38.82% responded *sometimes*, and 14.12% informed *never* to be able to relate what they learned to their lives outside of these classes.

Dealing with the answers of being able to pursue topics that interest them, 3.53% said *always*, 14.12% felt *frequently*, 34.12% claimed *quite often*, 36.47% responded *sometimes*, and 11.76% reported *never*.

While responding to the question of whether they apply their everyday experiences in classes, 4.70% reported *always*, 9.41% responded *frequently*, 34.12% claimed *quite often*, 37.65% felt *sometimes*, and 14.12% informed *never*.

When asked how often students link classwork to their lives outside of class, 4.7 % stated *always*, 17.64 % said *frequently*, 25.88 % said *quite often*, 38.82 % said *sometimes*, and 12.94 % said *never*. When asked if students learn things about the world outside of class, 5.88 % said *always*, 17.65 % said *frequently*, 24.70 % said *quite often*, 34.12 % said *sometimes*, and 17.65 % said *never*.

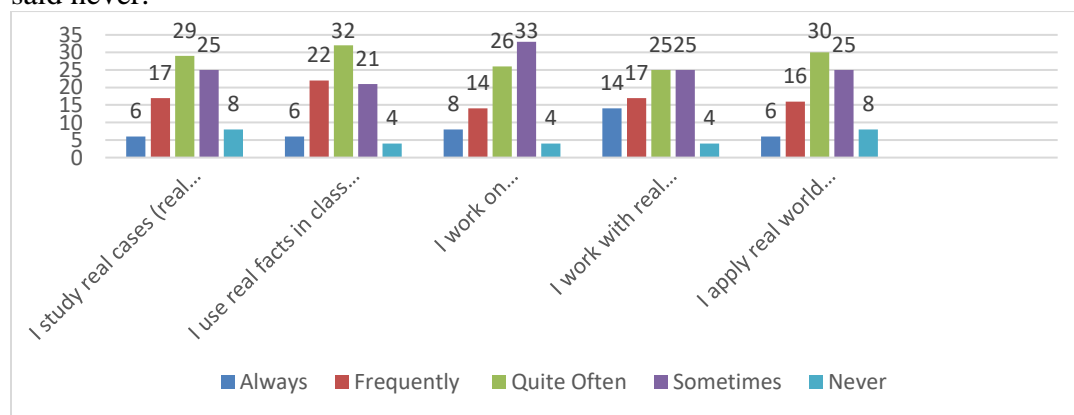


Figure 7. Authentic learning

When asked if they study real cases related to the class activities, 7.06% reported *always*, 20% responded *frequently*, 34.11% informed *quite often*, 29.41% felt *sometimes*, and 9.41% claimed *never*.

While reporting about whether students use real facts in-class activities, 7.06% informed *always*, 25.88% claimed *frequently*, 37.65% said *quite often*, 24.70% responded *sometimes*, and 4.7% reported *never*.

When asked if they work on assignments that deal with real-world data, 9.41% said *always*, 16.47% said *frequently*, 30.59% said *quite often*, 38.82% said *sometimes*, and 4.70% said *never*.

When asked if they work with real cases, 6.47% said *always*, 20% said *frequently*, 29.41% said *quite often*, 29.41% said *sometimes*, and 4.70% said *never*.

Concerning the question of whether they apply real-world experiences to the topics of studies, 7.06% reported *always*, 18.82% claimed *frequently*, 35.29% responded *quite often*, 29.41% felt *sometimes*, and 9.41% informed *never*.

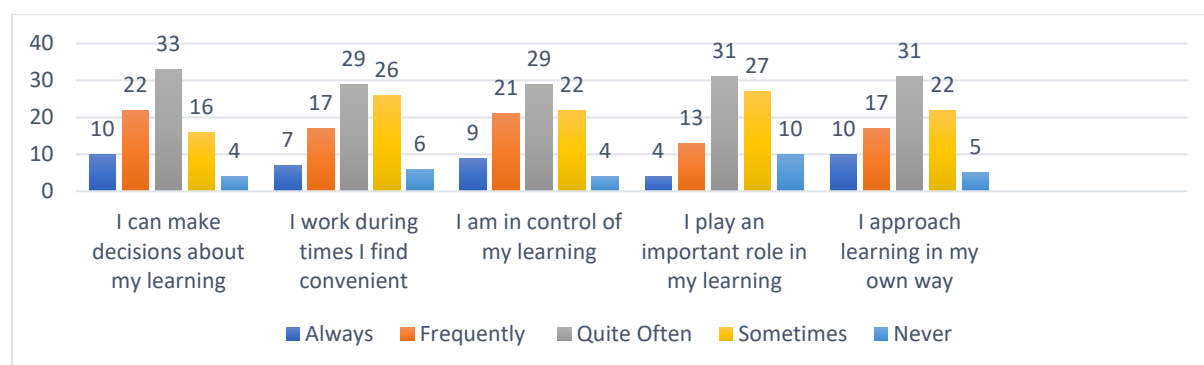


Figure 8. Student autonomy

Referring to figure 8, 11.76% responded *always*, 25.88% said *frequently*, 38.82% felt *quite often*, 18.82% claimed *sometimes*, and 4.71% reported *never* being able to make decisions about their learning.

In examining whether they worked during times they found convenient, 8.24% reported *always*, 20% informed *frequently*, 34.12% said *quite often*, 30.59% felt *sometimes*, and 7.06% claimed *never*.

When asked if they felt in charge of their learnings, 10.59% said *always*, 24.71% said *frequently*, 34.12% said *quite often*, 25.88% said *sometimes*, and 4.71% said *never*.

When asked if they played a significant part in their education, 4.71% replied *always*, 15.29% said *frequently*, 36.47% said *quite often*, 31.76% said *sometimes*, and 11.76% said *never*.

In answering the question of whether they approached learning in their ways, 11.76% claimed *always*, 20% reported *frequently*, 36.47% responded *quite often*, 25.88% felt *sometimes*, and 5.88% said *never*.

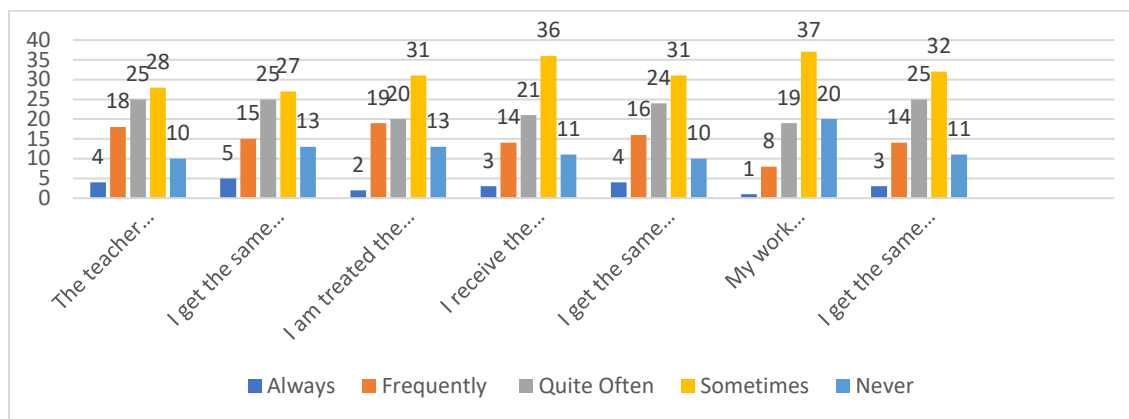


Figure 9. Equity

When asked if they have as much attention to their questions as to other students' questions by their lecturers, 4.71% said *always*, 21.18% said *frequently*, 29.41% said *quite often*, 32.94% said *sometimes*, and 11.76% said *never*.

When asked if they received the same amount of help from the teacher as other students, 5.88% said *always*, 7.65% said *frequently*, 29.41% said *quite often*, 31.75% said *sometimes*, and 15.29% said *never*.

When asked if they were treated the same as other students in the class, 2.35% said *always*, 22.35% said *frequently*, 23.53% said *quite often*, 36.47% said *sometimes*, and 15.29% said *never*.

When asked if they received the same encouragement from their teacher as other students, 3.53% said *always*, 16.47% said *frequently*, 24.71% said *quite often*, 42.35% said *sometimes*, and 12.94% said *never*.

When asked if they had the same opportunity to contribute to class discussions as other students, 4.71% said *always*, 18.82% said *frequently*, 28.24% said *quite often*, 36.47% said *sometimes*, and 11.76% said *never*.

When asked if their work was praised as much as that of other students, 1.18% said *always*, 9.41% said *frequently*, 22.35% said *quite often*, 43.53% said *sometimes*, and 23.53% said *never*.

When asked if they had the same opportunity to answer questions as other students, 3.53% said *always*, 16.47% said *frequently*, 29.41% said *quite often*, 37.65% said *sometimes*, and 12.94% said *never*.

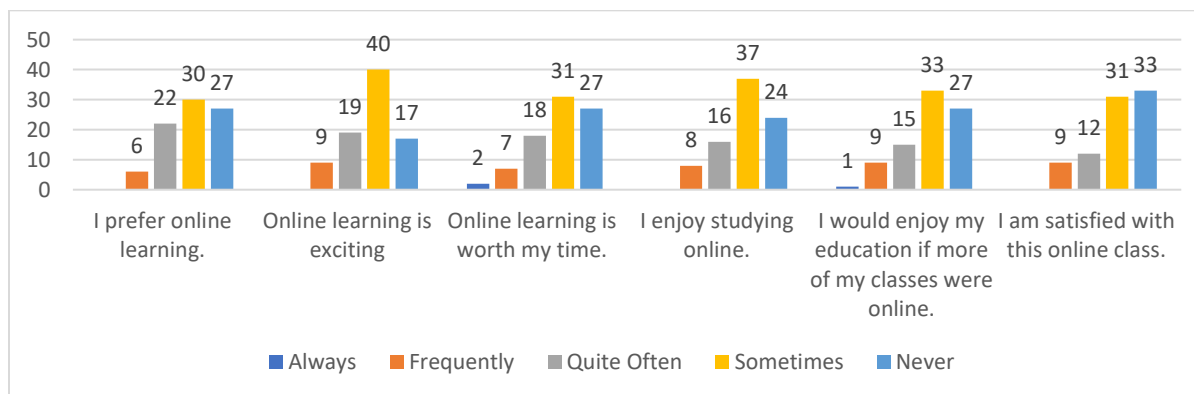


Figure 10. Contentment

Referring to figure 10, 7.06% responded *always*, 25.88% claimed *quite often*, 35.29% said *sometimes*, and 31.76% of students felt *never* concerned about their preferences toward online learning.

In examining whether online learning was exciting, 10.59% responded *frequently exciting*, 22.35% felt *quite often exciting*, 47.06% said *sometimes exciting*, and 20% reported *never exciting*. Dealing with the question of whether online learning was worth their time, 2.35% of students reported that it was *always worth their time*, while 8.24% responded that it was *frequently worth their time*, 21.18% stated *quite often worth their time*, 36.47% claimed *sometimes worth their time*, and 31.76% felt *never worth their time*.

Concerning the question of whether they were content with online study, 9.41% reported *always content with online study*, 18.82% responded *quite often content with online study*, 43.53% claimed *sometimes content with online study*, and 28.23% stated *never content with online study*. When asked if they would be content with their education better if more of their lessons were online, 1.18% said *always*, 10.59% said *frequently*, 17.65% said *quite often*, 38.82% said *sometimes*, and 31.76 percent said *never*.

When asked if they were content with these online courses, 10.59% said they were frequently satisfied, 14.11% said they were quite often satisfied, 36.47% said they were sometimes satisfied and 38, 82% said they were never satisfied.

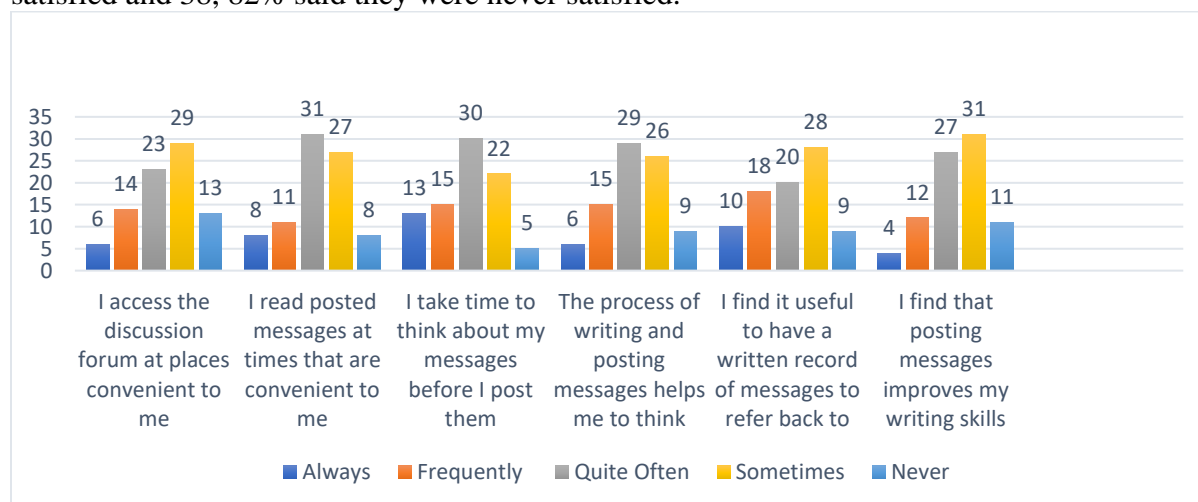


Figure 11. Synchronicity

When asked if they can visit the discussion forum whenever they want, 7.06% replied *always*, 16.47% said *frequently*, 27.06% said *quite often*, 34.12% said *sometimes*, and 15.29% said *never*.

When asked if they read posted remarks at times that are convenient for them, 9.41% said *always*, 12.94% said *frequently*, 36.47% said *quite often*, 31.76% said *sometimes*, and 9.41% said *never*.

When asked if they took time to think about their messages before they posted them, 15.29% said *always*, 17.65% said *frequently*, 35.29% said *quite often*, 25.88% said *sometimes*, and 5.88% said *never*.

When asked if writing and publishing messages helped them think, 7.06% replied *always*, 17.65% said *frequently*, 34.12% said *quite often*, 30.59% said *sometimes*, and 10.59% said *never*. When asked if having a written record of messages to refer back to was useful, 11.76% said *always*, 21.18% said *frequently*, 23.53% said *quite often*, 32.94% said *sometimes*, and 10.59% said *never*.

In response to the question of whether posting their messages improves their writing skills, 4.70% said *always*, 14.12% said *frequently*, 31.76% said *quite often*, 36.47% said *sometimes*, and 12.94% said *never*.

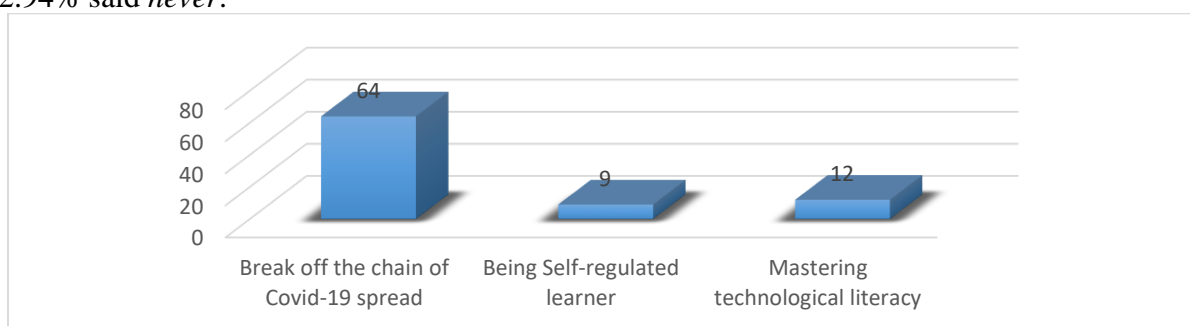


Figure 12. The greatest benefit of online distance learning

Figure 12 illustrates that the majority of bidikmisi students (75%) believe that the main goal of doing online distance learning is to break the Covid-19 distribution chain. The current coronavirus epidemic causes lecturers and students to attend, learn, and study at home in order to slow the disease's spread. In the event of a pandemic, distance learning could be used to stop the virus from spreading.

Online distance learning, according to 11% of students, helps them become self-regulated learners. As a result, students must employ a wide range of cognitive and metacognitive methods in order to achieve their learning goals.

Learners who can improve their self-regulated learning skills used time management, regularly reviewed material, sought professional help from lecturers or peers, made deadlines, and then used metacognition to reflect on their learning. Furthermore, online learning allows students to study at a time and at a location that is convenient for them. Several students commented that they were able to focus more of their attention on the course subject and less on concerns that can occur in a typical classroom setting.

The corona-19 pandemic spreading the world has forced all schools to close their doors and forge a new paradigm. Figure 12 shows that 14% of students believe there has been a shift in the educational paradigm, with online distance learning via ICT becoming an option in the teaching-learning process and a requirement in these pandemic times to continue the student learning process. All students must enhance their technology literacy as a result of the Covid-19 pandemic.

When students were first introduced to LMS as a medium of learning, they struggled because their digital abilities were insufficient to adapt to the new environment. They are now accustomed to using and operating the LMS.

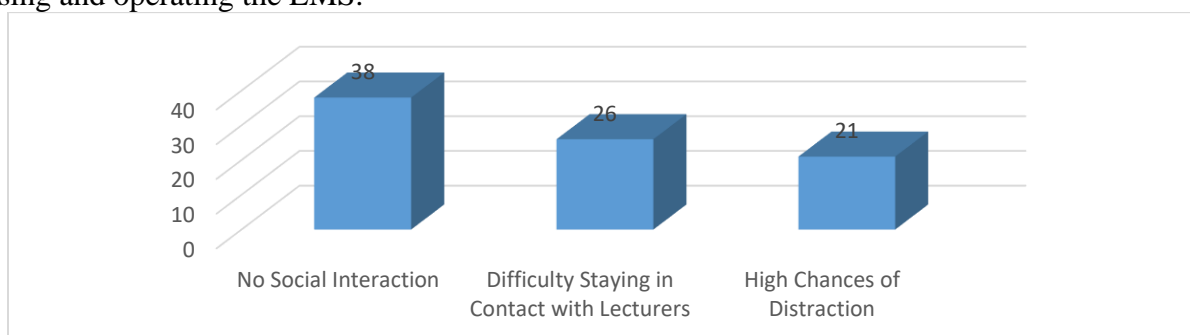


Figure 13. The greatest drawback of online distance learning

Figure 13 illustrates that more than half of students believe that online distance learning isolates them and that they miss the social and physical engagement that comes with attending a traditional classroom. The huge portion of students who choose No Social Interaction shows it (45 percent of students). The majority of students believe they are unable to verbally practice the teachings. Distance learning, as is well known, restricts students to online-based classrooms and learning resources. Students can communicate via chat rooms, discussion boards, emails, and/or video zoom conferencing software, but the experience is not equivalent to that of a traditional campus.

Students will have more difficulties getting in touch with their lecturers when the figure shows that 30% of students have difficulty staying in contact with their lecturers. While email is an alternative, it will not provide them with the same instant answer as sitting down with their lecturers.

According to 25% of students, online distance learning increases the likelihood of distraction, referring to face-to-face interaction and classmates who can assist with regular assignment reminders. If students would like to complete a distance learning course effectively, they must remain motivated and focused. In other words, if a student has a doubt, he must resolve it without the assistance of his lecturers or friends, as he will not be able to speak with friends and colleagues as he would in a traditional college course. He must be able to train himself to become motivated and concentrated in order to effectively complete a course.

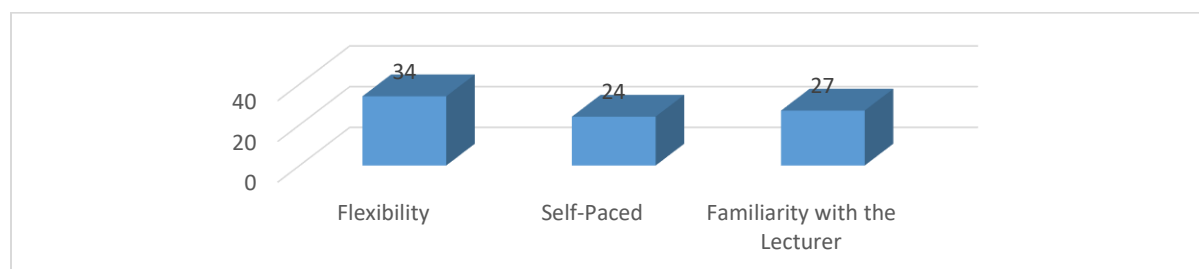


Figure 14. The positive experience towards online distance learning

The flexibility of online education has been generally recognized as an advantage, as seen in Figure 14. The flexibility of class participation time was the most crucial aspect in participants'

positive experience. In this study, 40% of students stressed the ease of not having to go to university and being able to arrange their work and study on their own time.

Another favorable experience mentioned by 28 percent of students in this study is self-paced learning. When lecturers provide required knowledge content to students, they have total authority.

The familiarity or comfort level with lecturers was a common occurrence in this research. 32 % say they enjoyed their classes because they were familiar with the lecturers. When asked if this familiarity affected their opinions of the quality of the distance learning class, they said they felt more at ease since they knew how the lecturers behaved and taught.

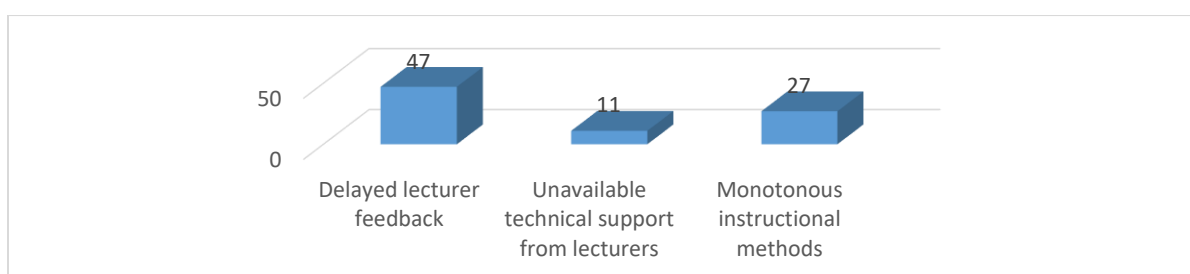


Figure 15. The negative experience towards online distance learning

Students' initial unfavorable experience with online distance learning is delayed feedback from lecturers, as shown in Figure 15 (55%). The lecturer's postponed criticism was regarded as the most influential factor in students' bad perceptions of the quality of online distance learning. All students expect to obtain timely feedback from professors on discussion boards, exams, and tests, as well as prompt feedback on assignments.

The lack of technical help from lecturers is the second most common unfavorable experience with online distance learning, according to 13% of respondents. When students are having difficulties, they expect someone to assist them. The lecturer was the person who was on their minds. As a result, when the lecturer's technical assistance is unavailable, unfavorable experiences will be shared. A few students stated that they and their classmates had no prior experience with technology. Another factor contributing to the feeling of isolation is the online class's repetitive educational methods (32%). According to the students in this study, the message board is their instructor's only means of communication and involvement.

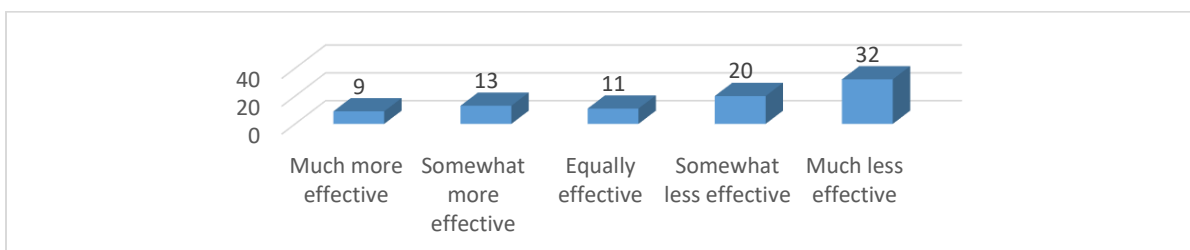


Figure 16. The rank of the effectiveness of online distance learning

Students' perspectives on the usefulness of online distance learning are depicted in Figure 16. Online distance learning is far more effective, according to 11% of students. Online distance learning, according to 15% of students, is somewhat more effective. Online distance learning, according to 23% of students, is somewhat less successful. Online distance learning is substantially less successful, according to 28% of students. In addition, the result shows that 13% of students believe online distance learning is similarly successful.

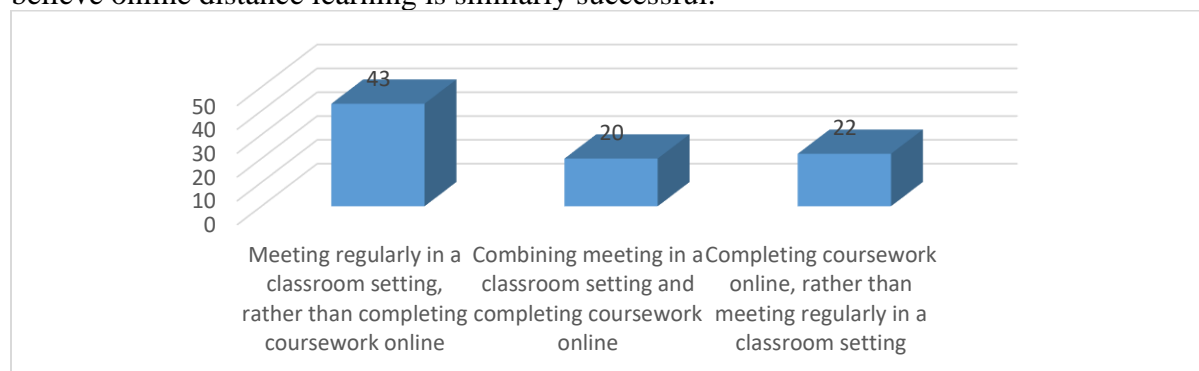


Figure 17. The class format students prefer

Figure 17 indicates that during the Covid-19 epidemic, students respond in a variety of ways to the class structure they choose. More than half of students (51%) prefer to meet in person rather than complete schoolwork online. Only 23% of students choose to meet in a classroom setting while still doing their schoolwork online. Figure 17 also reveals that 26% would rather to complete courses online rather than meet in a classroom setting on a regular basis.

For more details, all questions and the frequency of student answers can be seen in table 2. Table 2. *The result of Bidikmisi students' perceptions of online distance learning*

		Category				
		Always	Frequently	Quite often	Sometimes	Never
1.	Email assignments to my lecturer	22.35%	20%	34.12%	21.18%	2.35%
2.	Ask the lecturer question	15.29%	16.47%	24.71%	38.82%	4.71%
3.	Find out information about the course	9.41%	21.18%	34.12%	31.76%	3.53%
4.	Read lesson notes prepared by the lecturer	10.59%	24.71%	34.12%	29.41%	11.18%
5.	Find out information about how my work will be assessed	8.23%	20%	28.23%	34.12%	9.41%
6.	Take part in online discussions with other students	8.23%	14.12%	32.94%	38.82%	5.89%
7.	Find the time to respond	10.58%	18.82%	22.35%	34.12%	14.12%
8.	Helps me identify problem areas in my study	2.35%	18.82%	21.18%	36.47%	21.18%
9.	Responds promptly to my questions	4.70%	17.65%	28.23%	37.65%	11.76%

10.	Gives me valuable feedback on my assignments	7.06%	15.29%	25.88%	36.47%	15.29%
11.	Adequately addresses my questions	5.88%	21.18%	30.59%	35.29%	11.76%
12.	Encourages my participation	7.06%	17.65%	30.58%	35.28%	9.41%
13.	Easy to contact	4.70%	16.47%	36.47%	36.47%	5.88%
14.	Provides me with useful feedback on my work	3.53%	14.12%	25.88%	40%	16.47%
15.	I can work with others	3.53%	12.94%	38.83%	38.83%	5.88%
16.	I can relate my work to other's work	4.70%	17.65%	28.23%	32.94%	16.47%
17.	I share information with other students	3.53%	16.47%	29.41%	37.65%	12.94%
18.	I discuss my ideas with other students in the class	2.35%	24.71%	31.76%	37.65%	3.53%
19.	I can collaborate with other students in the class	5.88%	18.82%	29.41%	35.29%	10.59%
20.	I am involved in group work as part of my activities	9.41%	18.81%	25.88%	30.59%	15.29%
21.	I can relate what I learn to my life outside of this class	3.53%	20%	23.53%	38.82%	14.12%
22.	I can pursue topics that interest me	3.53%	14.12%	34.12%	36.47%	11.76%
23.	I apply my everyday experiences in class	4.70%	9.41%	34.12%	37.65%	14.12%
24.	I link classwork to my life outside of this class	4.7%	17.64%	25.88%	38.82%	12.94%
25.	I learn things about the world outside of this class	5.88%	17.65%	24.70%	34.12%	17.65%
26.	I study real cases related to the class activity	7.06%	20%	34.11%	29.41%	9.41%
27.	I use real facts in-class activities	7.06%	25.88%	37.65%	24.70%	4.7%
28.	I work on assignments that deal with real-world information	9.41%	16.47%	30.59%	38.82%	4.70%
29.	I work with real examples	16.47%	29.41%	29.41%	29.41%	4.70%
30.	I apply real-world experiences to the topic of studies	7.06%	18.82%	35.29%	29.41%	9.41%
31.	I can make decisions about my learning	11.76%	25.88%	38.82%	18.82%	4.71%
32.	I work during times I find convenient	8.24%	20%	34.12%	30.59%	7.06%
33.	I am in control of my learning	10.59%	24.71%	34.12%	25.88%	4.71%
34.	I play an important role in my learning	4.71%	15.29%	36.47%	31.76%	11.76%
35.	I approach learning in my way	11.76%	20%	36.47%	25.88%	5.88%
36.	My teacher always gives as much attention to my question as to other students	4.71%	21.18%	29.41%	32.94%	11.76%
37.	I get the same amount of help from the teacher as did other students	5.88%	7.65%	29.41%	31.75%	15.29%

38.	I am treated the same as other students in the class	2.35%	22.35%	23.53%	36.47%	15.29%
39.	I receive the same encouragement from the teacher as other students do	3.53%	16.47%	24.71%	42.35%	12.94%
40.	I get the same opportunity to contribute to the class discussion as other students	4.71%	18.82%	28.24%	36.47%	11.76%
41.	My work receives as much praise as other students' works	1.18%	9.41%	22.35%	43.53	23.53
42.	I get the same opportunity as other students	3.53%	16.47%	29.41%	37.65%	12.94%
43.	I prefer online learning	7.06%	25.88%	0%	35.29%	31.76%
44.	Online learning is exciting	0%	10.59%	22.35%	47.06%	20%
45.	Online learning is worth my time	2.35%	8.24%	21.18%	36.47%	31.76%
46.	I enjoy studying online	0%	9.41%	18.82%	43.53%	28.23%
47.	I would enjoy my education if more of my classes were online	1.18%	10.59	17.65	38.82	31.76
48.	I am satisfied with this online class	0%	10.59%	14.11%	36.47%	38.82%
49.	The discussion forum is accessible from places that are convenient for me.	7.06%	16.47%	27.06%	34.12%	15.29%
50.	I read posted messages at times that are convenient to me	9.41%	12.94%	36.47%	31.76%	9.41%
51.	I take time to think about my messages before I post them	15.29	17.65%	35.29%	25.88%	5.88%
52.	Writing and posting messages helped me develop my thinking skills.	7.06	17.65%	34.12%	30.59%	10.59%
53.	I find it useful to have a written record of messages to refer back to	11.76%	21.18%	23.53%	32.94%	10.59%
54.	I find that posting my messages improve my writing skills	4.70%	14.12%	31.76%	36.47%	12.94%
55.	The greatest benefit of online distance learning					
	Break off the chain of Covid-19 spread				75%	
	Being Self-regulated learner				11%	
	Mastering technological literacy				14%	
55.	The greatest drawback of online distance learning					
	No Social Interaction				45%	
	Difficulty Staying in Contact with lecturers				30%	
	High Chances of Distraction				25%	
56.	The positive experience towards online distance learning					
	Flexibility				40%	
	Self-Paced				32%	
	Familiarity with the lecturer				28%	

57.	The negative experience towards online distance learning	
	Delayed lecturer feedback	55%
	Unavailable technical support from lecturers	13%
	Monotonous instructional methods	32%
58.	The rank of the effectiveness of online distance learning	
	Much more effective	11%
	Somewhat more effective	15%
	Equally effective	13%
	Somewhat less effective	23%
	Much less effective	38%
59.	The class format students prefer	
	Meeting regularly in a classroom setting, rather than completing coursework online	51%
	Combining meeting in a classroom setting and completing coursework online	23%
	Completing coursework online, rather than meeting regularly in a classroom setting	26%

Discussion

Students are more stressed, lack motivation, and easily get bored or distracted during online learning, as shown in the results. Even more anxious were they when lecturers regularly gave them tasks that only took one day to complete. Based on the survey results, the students were unhappy with how the lecturers taught them. It seems some lecturers always asked students to send assignments' answers via email and took much time to answer questions from students. They became bored and uninterested in raising their hands to ask problems related to the learning materials they were learning in this manner. When they did not fully understand the teachings their lecturers explained, they opted to question their peers instead of lecturers. Students also said that online lectures were difficult to grasp. As a result, lecturers must be attentive to a variety of learning styles, requirements, and expectations, as well as be familiar with the online learning environment. To put it another way, internet learning is uninteresting (Dhawan, 2020).

The majority of the students' issues were related to inadequate network access and bandwidth. The internet connection stability was identified to be one of the issues students had while online learning in the Covid-19 program, according to Britt (2006) and Zhong (2020). The bidikmisi students at Sriwijaya State Polytechnic come from various regions, with the majority from remote areas where access to the internet is still difficult. Internet access requires a huge quota, therefore bidikmisi students choose to switch off the camera throughout the teaching and learning process via online to save their quota.

In summary, most students indicated that they preferred conventional learning over online learning due to a number of problems they faced when implementing online lessons during a pandemic situation. In studies by Jeffrey, Milne, and Suddaby (2014), Almaghaslah, Ghazwani, Alsayari, & Khaled (2018), and Dhawan (2020), students were more comfortable with face-to-face learning than online learning. They believed that online learning activities made them stressed, bored and unmotivated.

Conclusion

Various obstacles have been encountered during the implementation of distance learning in Sriwijaya State Polytechnic during the COVID-19 pandemic through online learning. The availability of various ICT tools and online learning platforms is widely spread, but they cannot be directly used by teachers in order to support the implementation of learning. Additionally, the students' geographic location, where many do not have access to good internet networks, and their family's economic ability are obstacles to implementing online learning through various platforms. Students also feel that conventional learning is simpler than online learning. Students believe that lessons given by the teacher utilizing online learning are less effective. It is common for teachers to send the materials without explanation, which increases the anxiety of the students, since they cannot fully understand the lesson.

Based on the study's findings, some recommendations are made. Because the covid-19 epidemic demands online distance learning, lecturers must be more innovative in their use of various instructional strategies to ensure that bidikmisi students are not bored throughout the learning process taking place during virtual meetings. To enable effective and efficient teaching and learning practices, several teaching methods (lectures, case studies, debates, discussions, experiential learning, brainstorming sessions, games, drills, and so on) may be employed online. Teaching and learning should be made exciting in such panicked situations, where the lives of so many students are on the line. Students' tension, fear, and anxiety will be reduced as a result of this. In short, educational system requires all lecturers who are knowledgeable about the quickly evolving and changing information environment and have a feel of how to combine theory and practice.

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References

Almaghaslah, D., Ghazwani, M., Alsayari, A., & Khaled, A. (2018). Pharmacy students' perceptions towards online learning in a Saudi Arabia pharmacy school. *Saudi Pharmaceutical Journal*, 26(5), 617-621. <https://doi.org/10.1016/j.jsps.2018.03.001>.

- Bilgiç, H. G., & Tüzün, H. (2015). Yükseköğretim kurumları web tabanlı uzaktan eğitim programlarında yaşanan sorunlar [The problems experienced web-based distance education programs in higher education institutes]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi [Journal of Open Education Applications and Research]*, 1(3), 26-50.
- Britt, R. (2006). Online education: A survey of faculty and students. *Radiologic Technology*, 3(77), 183–190.
- Coman, Claudiu., Tiru, Laurent Gabriel., Schmitz, Luiza Mesesan., Stanciu, Carmen., and Bularca, Maria Cristina. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *MDPI Journal*, 12(24), 1-24.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, California: SAGE Publications, Inc.
- Davis, L. N., Gough, M., & Taylor, L. L. (2019) Online teaching: Advantages, obstacles and tools for getting it right. *Journal of Teaching in Travel & Tourism*, 19(3), 256-263.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology System*, 49(1), 5-22. <https://doi.org/10.1177/0047239520934018>.
- Enosh, G., Tzafrir, S. S., & Stolovy, T. (2014). The development of client violence questionnaire (CVQ). *Journal of Mixed Methods Research*, 9(3), 273–290. <https://doi.org/10.1177/1558689814525263>
- Ertmer, P. A. (1999). Addressing first- and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, 47(4), 47-61
- Fetters, M. D. (2016). Haven't we always been doing mixed methods research? Lessons learned from the development of the horseless carriage. *Journal of Mixed Methods Research*, 10(1), 3–11. <https://doi.org/10.1177/1558689815620883>
- Jeffrey, L.M., Milne, J., & Suddaby, G. (2014). Blended learning: How teachers balance the blend of online and classroom components. *Journal of Information Technology Education: Research*, 13, 121-140.
- Kemenristekdikti, (2016). *Ministry of research, technology and higher education, the manual book of mission-aim education fee scholarship implementation*. Jakarta: Directorate General of Learning and Student Affair.
- Malik, R. S. & Hamied, F. A. (2016). *Research methods: A guide for first-time researchers*. Bandung: UPI Press.
- Maxwell, J. A. (2016). Expanding the history and range of mixed methods research. *Journal of Mixed Methods Research*, 10(1), 12–27. <https://doi.org/10.1177/1558689815571132>
- Muthuprasad, T., Aiswarya, S., Aditya, K.S., Jha, Girish K. (2021). Students' perception and preference for online education in India during COVID -19 pandemic. *Social Sciences & Humanities Open*, 3(1), 1-11.
- O'Malley, J., & McCraw, H. (1999). Students Perceptions of Distance Learning, Online Learning and the Traditional Classroom. *Online Journal of Distance Learning Administration*, 2(4), 1–12.
- Oye, N.D., Salleh, M., and Iahad, N.A. (2012). E-learning methodologies and tools. (IJACSA) *International Journal of Advanced Computer Science and Applications*, 3 (2), 48-52.
- Pearson, J., & Trinidad, S. (2005). OLES: An instrument for refining the design of e-learning environments. *Journal of Computer Assisted Learning*, 21(6), 396-404.

- Rahayu and Suwanda. (2015). The pattern of mission-aim scholarship usage by the student of social science faculty Surabaya public university batch 2011. *Journal of Moral and Citizenship Studies*, 03(03): 1160-1174.
- Trinidad, S. & Pearson, J. (2004). Implementing and evaluating e-learning environments. In R. Atkinson, C. McBeath, D. Jonas-Dwyer, R. Phillips, (Eds.), *Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference* (pp. 895-903). Perth, Australia: Australasian Society for Computers in Learning in Tertiary Education.
- Trinidad, S., Aldridge, J., & Fraser, B. (2005). Development and use of an online learning environment survey. *Journal of Educational Technology*, 21(1), 60-81.
- United Nation. (2020). Policy brief: Education during COVID-19 and beyond. UN: Retrieved from: https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf
- Wu, Z. (2020). *How a top Chinese university is responding to coronavirus*. Retrieved from: <https://cutt.ly/Jg2KWZw> (accessed on 8 May 2021).
- Zhong, R. (2020). *The coronavirus exposes education's digital divide*. The New York Times. <https://www.nytimes.com/2020/03/17/technology/china-schools-coronavirus.html>

MALL Instructional Course Design: Constructing Out-of-Class Experience

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Abstract

Mobile-assisted language learning (MALL) is a new channel of learning languages. The usage of MALL instructional design integrates mobile devices with educational scenarios of teaching foreign languages. The study explores the central issue of how MALL instructional course design could help students to construct an out-of-class MALL experience. The research investigates the practical characteristics of MALL instructional design, which lead to foreign language acquisition. The study had three objectives: to explore the perceptions of students and needs in MALL; to create a conceptual framework of MALL instructional course design; to summarize the results in pedagogical implications to the course. The data came from an exploratory study of employing MALL in instructional course design at the tertiary level within the first semester of 2021. This study analyses the feedback of 32 students about the effectiveness of the MALL activities and students' satisfaction. The research shows how student feedback stimulates investigation into MALL instruction and evaluation of its design. The researchers used qualitative and quantitative analyses. The results of the study, conducted in three stages, helped to develop a design framework. The research proved that designing the MALL activities supported interaction, communication, access to resources, and people within the network community practice. MALL course design promoted active collaborative learning that helped students to construct the MALL experience in the real-world environment. The researchers provide recommendations on combining various MALL facilities and channels of communication that mobiles afford.

Keywords: computer-assisted language learning (CALL), instructional design, mobile-assisted language learning (MALL), mobile devices, mobile learning

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Introduction

The number of teachers using mobile-assisted language learning (MALL) has increased markedly. A lot of researches, devoted to this technology in education, appeared during the COVID time. A trend and a new approach elaborate on the use of mobile devices for language learning.

Researchers and practitioners suggest that MALL supports breaking down barriers, unfettered flow of information, frequent interaction, reflection, enjoyment, and personal gains. Students can use the possibilities offered by mobile technologies for easy access to information, promote the development of digital literacy and open the way to independent learning. Mobile devices allow the implementation of innovative teaching practices that we cannot usually experience with other learning tools (Arvanitis & Krystalli, 2021). Students are accustomed to multitasking, active, connected, and comfortable learning environment (Isamiddinovna, 2019).

MALL involves multiple technologies, modalities, and methods (Kukulka-Hulme, 2021b). The use of mobile technologies can offer interesting, engaging, and motivating language learning activities (Kukulka-Hulme, Lee & Norris, 2017).

MALL has moved teachers and students out of the classroom setting into the real world. Using of mobile phones can provide a rich learning environment for learners (Azar & Nasiri, 2014). Teachers should reach this aim by using MALL instructional design. They can integrate mobile devices with educational scenarios of teaching foreign languages.

The research shows how MALL instructional design can enhance out-of-class foreign language learning. This study aims to investigate the effectiveness of MALL instructional design. The research had the following target questions: What are the elements of successful creation of MALL interactive activities? Does instructional MALL design improve language skills? How to construct an out-of-class MALL experience for students? How can MALL design support the motivation and collaboration of students? What are the benefits of this technology for learners?

The objectives of this study are to explore the perceptions of students and their needs in MALL; to create a conceptual framework of course design; to summarize the results in pedagogical implications to the course.

Literature Review

Defining mobile-learning

MALL is a subfield of mobile learning. Kukulka-Hulme (2021a) thinks that MALL is not a universal concept and has a relationship with the fields of e-learning as well as computer assisted language learning (CALL).

Mobile learning involves different concepts and terms. Arvanitis and Krystalli (2021) investigated trends of mobile assisted language learning from 2010 to 2020. They think Chinnery (2006) first mentioned this term, talking about using of mobile devices as a pedagogical tool for foreign language learning. Researchers give different definitions of mobile learning: any type of learning that takes place in learning environments and space that takes account of the mobility of technology, mobility of learners, and mobility of learning (El-Hussein & Cronje, 2010); any sort of learning that occurs when a learner is not at a fixed, predetermined location, or knowing that

happens when the learner takes advantage of learning opportunities offered by mobile technologies; a technology between e-learning and ubiquitous learning (u-learning) which support learning process (O'Malley, Vavoula, Glew, Taylor, Sharples, Lefrere, Lonsdale, Naismith, & Waycott, 2005; Arvanitis & Krystalli, 2021). MALL has three aspects: learning through mobile terminals, learning with students on the move, and learning through mobile content (Taylor, 2006; Arvanitis & Krystalli, 2021).

Kukulka-Hulme (2021b) uses the term *mobile pedagogy* for MALL to make explicit the role of teachers in the design and promotion of mobile activities that encourage students to engage in learning as a form of mobile inquiry. Mobile pedagogy includes informal learning without teacher involvement.

The context of MALL

The context of MALL is a significant construct that embraces the environment where students operate. Researchers defined two context-related perspectives on mobile learning: context-independent learning and context-aware (contextual) mobile learning (David, Yin, & Chalon, 2009; Palalas, 2011). Contextual mobile learning (CML) is a critical element of engaging learners in MALL activities. CML integrates the notion of situated learning with its emphasis on the authentic context and social interaction based on “activity in and with the world” (Lave & Wenger, 1991). According to the contextual approach, MALL is language learning enabled by the mobility of the learner and the location, and portability of handheld devices. MALL is human interaction across multiple situations mediated by mobile technology within a networked community of practice, embedded in the contexts, which are relevant, pedagogically sound and informed by real-life contexts (Palalas, 2011). The teachers can initiate the learners into a learning environment where they provide initial scaffolding and then gradually withdraw the support to allow learners to take charge of their learning (Park, 2011; Taj, Sulan, Sipra & Ahmad, 2016).

The context of MALL gives learners a first-hand experience. Students perceive mobile learning as a helpful learning system. They can use mobiles in three different modalities (Sam & Shalini, 2021): 1) asynchronous phone-assisted language learning (AMPALL); 2) synchronous mobile phone-assisted language learning (SMPALL); 3) teacher moderated synchronous mobile phone-assisted language learning (TMSPLL).

Palalas (2011) summarized that the main aims of creating a mobile-learning context are as follows:

- Enhance the motivation for learning through technology familiar to students, such as smartphones and tablets.
- Give more opportunities to students to develop all six communication skills.
- Encourage the use of the target language as a unique means of communication.
- Facilitate the teaching process through exploring, analyzing, discovering, and choosing activities that make sense in the real world.
- Enhance any type of interaction between real and virtual environments, between students in the same classroom but also with students in another classroom inside and outside boundaries.
- Promote pleasantly promote learning.

Researches in MALL

Buabeng-Andoh (2021) and Kukulska-Hulme (2021b) think that research into the determinants of mobile learning acceptance is in its infancy phase, even though the issue of technology acceptance in education has a long history.

Researches in MALL are mainly applied. Studies identify several significant themes in mobile learning studies: enhancing the learning experience; exploring affective factors in learning with mobile devices; investigating appropriate methods for evaluating learning in mobile environments; designing supportive, innovative educational practices; integrating mobile technologies with broader educational scenarios (Kukulska-Hulme, 2021b).

Isbell, Rawal, Oh and Loewen, (2017) investigated the experiences of learning a language on Duolingo. They also researched how certain MALL practices would foster an advanced form of self-study and self-regulated learning (SRL). Researchers used Nintendo DS as a neutral mobile platform for developing MALL activities. Isbell et al. (2017) adapted and transferred them for use on private mobile phones. Participants improved on L2 measures at the end of the study, and results indicate a positive correlation between the amount of time spent on Duolingo and learning gains.

Researchers developed a mobile concept mapping system that should facilitate knowledge construction (Hwang & Chang, 2021). Taj et al. (2016) conducted a meta-analysis of 13 studies of MALL between 2008-2015. Arvanitis and Krystalli (2021) made the analysis of MALL trends in academic studies from 2010 to 2020. Their findings confirm that teachers can use mobile phones, with their increasing capabilities to provide connectivity in a ubiquitous environment, as practical tools for delivering language content (Taj et al., 2016).

Sam and Shalini (2021) offered Technology Acceptance Model (TAM). TAM has three phases: system features capabilities, the motivation of learners to use the system, and actual system use. The system responds to how an external stimulus consisting of that existing features of system and its capabilities influence user motivation.

The research of Kartchava and Nassai (2021) analyses the role of corrective feedback in mobile technology-mediated contexts.

Erlam, Phip and Feick (2021) investigate the digital competencies for MALL and their connection to the everyday digital communication practices of language learners. Researchers illuminated the benefits of digital media for individualizing language learning and providing opportunities for social learning. Their research shows how digital media, especially mobile devices, can bridge learning inside and outside the classroom and provide opportunities for authentic interaction, creativity, and game-based learning (Erlam et al., 2021).

The researchers discuss the perspectives of employing MALL in the language classes at the tertiary level. The use of mobile devices for learning was minimal before the pandemic COVID 19 (Dashtestani, 2016; Nino, 2015). The scenario completely changed during the pandemic. Teachers started to practice this technology and design flexible programs for students (Nuraeni, 2021; Sam & Shalini. 2021).

The most recent studies are devoted to the adaptation of mobile learning (Moya & Camacho, 2021); challenges concerning specific subjects or groups of learners (Lee, 2021); mobile-assisted language learning in blended learning settings (Sato, Murase & Burden, 2020); research model approaches (Buabeng-Andoh, 2021; Burston, 2021); digital mobile skills (Lee, 2021), and attempts to develop an understanding of the process and products of mobile learning (Bernacki et al., 2020).

Benefits and barriers to the use of mobile-assisted language learning (MALL)

Recently, teachers and learners are experiencing a positive shift from CALL to another more efficient platform called MALL. MALL brings a tectonic shift from routine learning strategies to a technology-oriented approach to reconceptualizing the needs of students. This power explores the fundamentals of MALL and its application in foreign language teaching. The research of Sam and Shalini (2021) sheds light on the various advantages and limitations of implementing MALL devices like mobile phones, smartphones, and kindles in a virtual classroom context.

Different scholars considered several merits and barriers to applying MALL. Warschauer and Healy (1998) mentioned some beneficial aspects of MALL:

- 1) multimodal practice with feedback;
- 2) individualization in a large class;
- 3) pair or small group work on projects;
- 4) the fun factor;
- 5) variety of available resources and learning styles;
- 6) exploratory learning with a large amount of language data;
- 7) real-life skill building in computer use.

Lee (2000) suggested that this technology can contribute significantly to the learning process. Advantages include the following factors:

Experiential learning makes it possible for students to tackle a considerable amount of experience. Students become the creators of knowledge.

The motivation of students is increasing. The variety of activities makes them feel more independent and leads to self-directed learning. Learners can generate the activities by themselves.

A network-based instruction can help students strengthen their linguistic skills by positively affecting their learning attitude and by assisting them in building self-instruction strategies and *enhance student achievement*.

Students can use various *original study materials* 24 hours a day.

Greater interaction. Activities give students positive and negative feedback by automatically correcting their online exercises.

Individualization. Students can benefit from individualized, student-centered collaborative learning or from working at their own pace.

Independent from a single source of information. Learners have the chance to discover thousands of information sources. As a result, their education fulfills the need for interdisciplinary learning in a multilingual world.

Global understanding. Students study the language in a cultural context. An English Language teachers have to facilitate access to the web and make students feel like citizens of a global classroom, practicing communication on a worldwide level.

Researchers mentioned the primary beneficiary points for MALL: creating a better English communicative environment for students and improving the efficient teaching mode; creating a context for language teaching and providing flexibility to course content (Shyamlee & Phil, 2012).

Corgi (2021), examining the effect of mobile-assisted language learning on ability of students to master the English language structure, defined the following benefits of MALL:

1) MALL offers learners a perfect platform to improve their understanding of various language concepts. Learners can use their devices to investigate the concepts taught in class. They can access materials that further explain the concepts.

2) MALL makes it possible for learners to understand their knowledge gap. Students can handle the knowledge gap using devices. This gap they can identify when they are engaged in online discussions with peers.

3) Learners have to take control of their learning process and appreciate their ability to do their research using devices to master the language. Teachers have to ensure that information is available to learners and the MALL system is in line with the syllabus.

MALL fits nicely into the presentation, practice, and production paradigms. Language learning can present learning material in multimodal ways and create an environment that is conducive to a variety of learning scenarios as formal and informal learning (Jarvis & Achilleos, 2013). MALL affords give the option to engage students in group work and to present instructional material in an exciting way (Tai, 2012; Oz, 2015). Burston (2021) thinks that MALL allows students to create their learning framework in terms of time and place. Online learning makes language learning independent, self-directed, and autonomous (Arvanitis and Krystalli, 2021).

Dina and Cironei (2013) mentioned the following disadvantages of CALL:

- 1) deterioration of the teacher's role in the learning process;
- 2) division into small sections and well-delimited content leads to shortening the matter, favoring those students with analytic thinking, but not those with synthetic thinking;
- 3) controlling step-by-step student mental activity by the teacher stops them from developing creative abilities, entrepreneur spirit and initiative;
- 4) excessive individualization of learning can lead to denial of the teacher-student dialogue and the isolation of the learning process from its psycho-social context.

Yükselir (2017), in his meta-analysis, concludes that without longitudinal and cross-sectional studies about MALL, it is nearly impossible to say that MALL is more effective than other language teaching techniques.

Educators should consider the following limitations of MALL:

1. Technical factors. Internet data is critical in deciding the quality of learning using mobile devices. Mobile devices have a number of technical issues and difficulties: the lack of a single platform for application development, relatively small screen, uncomfortable keyboard with small letters, limited memory and data storage space, dependence on battery capacity, the need for adaptation of conventional electronic content to screens of mobile devices (Stockwell & Hubbard, 2013; Sam & Shalini, 2021), and the slow speed of Internet (Cicik, Irmawati, Adi, Wina & Syamsul, 2020).

2. Pedagogical factors. Types of learning activities that have proven their effectiveness in CALL are ubiquitous in mobile learning. As a result, in some cases, there may be a decrease in the effectiveness of mobile learning (Stockwell, 2013). Learners experience a lack of support and guidance in the process of learning. The deficiency of an explicit pedagogical framework might lead to a shortage of interest and reluctance in learners (Sam and Shalini, 2021; Cicik et al., 2020).

3. Psychological factors. The interface of a mobile device has significant differences from the interface of a computer. Students use mobiles primarily to achieve personal and social goals. They don't have a habit of using mobile phones much for studying (Sam and Shalini, 2021).

The reviewed literature provides the conceptual framework for task-based learning, the potential practice, and encouraging classroom interaction using MALL.

Methodology

The researchers conducted this exploratory study at V. O. Sukhomlinskyi National University of Mykolaiv in the first semester of 2021. This study offered designed MALL activities that would promote out-of-class language practice. The planned course "Communicative Strategies of English" aimed to optimize the academic success of L2 master students. Teachers encouraged learners to use their mobiles to communicate by blogging and to write their reflections using Notes features. Students explored ESL pod, Business English Pod, TED videos, and audio recordings.

The data came from the feedback of 32 students and four teachers about the effectiveness of the MALL activities and students' satisfaction. Researchers used qualitative and quantitative analyses.

The researchers combined two goals in this study: the design of MALL and the development of an instructional design framework. There were three stages in the research: preliminary, enactment, and evaluation. Students participated in an online survey created by the researchers.

Table 1. *The on-line survey for students*

STAGE	QUESTIONS	CODE
Preliminary stage	Do you use your mobile phone for learning or leisure?	RQ 1
	Can mobile phones facilitate English language learning?	RQ 2
	Do you always have an Internet connection?	RQ 3
	Does mobile learning allow you to reach authentic English language material wherever you needed?	
Enactment stage	What language skills can you practice using a mobile phone?	RQ 4
	What activities should teachers adopt in the design of mobile learning activities??	RQ 5
	What applications and software are beneficial for learning English?	RQ 6
Evaluation stage	Is mobile learning time-efficient for you?	RQ 7
	What do you think of practical listening activities for a mobile phone?	RQ 8
	What is the effect of mobile learning on your communication with the teacher and other students?	RQ 9
	What kind of activities supports the mastering your language skills?	RQ 10
	Can it help you in real-life communication?	RQ 11
	What kind of practical activities do you prefer and why?	RQ 12
	Will mobile learning help you to get intercultural skills on the Global Net?	RQ 13
	How do you utilize mobile devices to co-construct a self-directed out-of-class mobile experience?	RQ 14

Results

The preliminary stage

In the preliminary stage, the researchers focused on understanding the needs of students in MALL. They also investigated the perception of MALL by practitioners who took part in the pilot-course. The researchers and practitioners discussed the structure of the course instructional design in two meetings. The results determined the socio-cultural and organizational the MALL intervention designed, which the researchers and the practitioners implemented in the next stage.

The enactment stage

In the enactment stage, the researchers and practitioners designed and developed MALL learning objects. They created a conceptual framework as well as technology. The practitioners collaborated through online ZOOM meetings. They exchanged their expertise and feedback with researchers. The researchers worked in sharing the learning through collaborative practices including planning, researching, and problem-solving.

The students got their assignments and designed blogs. The researchers recorded students' feedback (online meetings and audio recordings), collected the data from practitioners, and analyzed it. The data determined the concept of the course design.

The evaluation stage

Two previous stages produced contextually-grounded knowledge based on feedback from learners and practitioners. The investigation of students' mobile habits allowed us to reconceptualize the design approach of the course. The students defined the components and properties of MALL. The researchers summarized the results in pedagogical implications for the practice.

The findings presented below are selected verbatim quotes from students.

Table 2. *Selected verbatim quotes from students.*

STAGE	SELECTED VERBATIM QUOTES	CODE
Preliminary stage	I use my mobile to call my friends and check emails or Facebook. I communicate with my friends. I use my phone for leisure and work. It is your choice how to use your phone for fun or learning.	Q 1
	It would be helpful if it could help with my homework.	Q 2
	As usual, I have access to the Internet.	Q 3
	As usual, I make photos for my friends to send them. You can use pictures when you don't know an English word, and you want to explain something. I can listen to English radio channels or podcasts, and watch BBC videos.	
Enactment stage	I can practice pronunciation and vocabulary. Listening activities accounted for vocabulary.	Q 4
	The teachers should add exciting activities based on using famous social nets.	Q 5
	I can study a foreign language on YouTube and use particular websites to learn English You can find information online and use the audio Google app for learning English. I use online dictionary and translator for my iPhone. I can check the words when I do not know what people say. I use the site Lingualo Learn English and English Daily. I recommend using YouTube and iTunes for podcasts. We can use Memrise, TED, and Italki. To pass TOEFL I used Voxy and Lingvist. It is good to use applications: reDict, Google Translate, Merriam-Webster Dictionary, and WordBook – English Dictionary & Thesaurus. I use applications AnkiApp, Rosetta Stone, and Memrise to remember words. I use applications Flip and Learn, FluentU, and English Grammar in Use Activities to improve my grammar. I watch the applications BBC News and CNN News I communicate with native speakers in Italki.	Q 6
Evaluation stage	I can master the language any time when I am not busy. More expensive phones give more advantages for learning.	Q 7
	Explicit instruction of a teacher is the most important feature of mobile learning.	Q 8
	I think it is better to meet online with a teacher and other students. I can ask the meaning when I listen, and other students can help me with my task. They can help even over the phone. I like team assignments. It is better than I work isolated with my mobile phone. MALL determines the interference of teachers helping students. You can ask a teacher for lessons podcasts to help in learning.	Q 9
	I liked podcasts. I can listen to them anytime. I stop listening when I am unsure what it means and want to check the meaning of some words in an online dictionary. The most exciting task of MALL was when I made my project – a radio interview.	Q 10
	It helps to practice how to understand other people. We had to settle real-life problems connected to our program.	Q 11
	I am proud I created my project with other creative students. I enjoyed their partnership. I liked videos that showed cultural office behavior. Some tasks were easy. Assignments should be more complicated like real case studies. I like listening to podcasts that my teacher suggested, and friends found. When I did interviews for radio, different students used different recorders. I had all tools I needed for the assignment.	Q 12
	MALL gives the practice of intercultural communication.	Q 13
	MALL made me more responsible for my language learning. Now I understand how to organize my language learning using my mobile. It encouraged me to study more.	Q 14

	Using a mobile made my learning English easier.	
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The main characteristic of the created MALL course is the integration of students in the design of any student-centered instruction. The MALL course provided flexible learning across space, time, and context. Students understood the critical aim of MALL was to communicate in any life situation beyond the classroom

Students liked out-of-class practice and the opportunity to learn English whenever they wanted. In their training, the learners wanted to focus on listening comprehension, advanced vocabulary, particular terminology, pronunciation, and intercultural communication.

A majority of students liked the activities which engaged them in the learning process. They noticed that this course motivated them to study the language even without the presence of a teacher. The participants indicated that online meetings gave them the feeling of belonging to the community of practice they didn't have in other university courses. They could overcome the barriers to communication and get adequate language skills. Some learners experienced uncomfortable feelings of being socially distant from the teachers. They needed significant learning support from the teacher to promote language acquisition. Teachers had to keep tracking group work on projects to maintain a high level of engagement and to provide on-demand help via a network. The course provided the learners with many web-based and phone-based digital resources. The participants benefited from collaborative activities organized around mutual goals, and integrated via mobile devices. These results revealed the main characteristics of the practical course design.

During the course, the teachers encouraged students to use additional means such as dictionaries, glossaries, and digital translators to support communication or overcome miscommunication. Students also could use visual resources. They collected these resources according to their needs and availability. Most students indicated a willingness to select necessary applications and resources on their mobile phones. They recommend using YouTube, TED, BBC News, and iTunes for podcasts. Learners also found helpful audio flashcards and audio podcasts related to their needs and interests in language practice. Students experienced a variety of mobile resources autonomously. They expressed the need for teachers' assistance through the vast amount of information and wanted the learners' activities and materials organized around the tasks. According to this demand, the teachers organized language task-specific help and a selection of web-based language resources for MALL. The teachers scaffolding aimed to make students more responsible for their learning.

One of the course design features was the appropriate choice of authentic materials and reference sources for students. It gave an excellent gaudiness by well-designed tasks relevant to students' engagement and interests. *Stay connected with others* was an indispensable property of MALL design. It promoted the flexibility of interaction and expression within the web. Students could experience different modalities. They made records texts and audio, took photos, uploaded their interviews, created, and published their presentations using mobiles. All mentioned above created an authentic environment integrating all language skills.

Students generated audio-visual descriptions, audio repositories of English idioms, audio dictionaries, phone blogging, and video interviews. The tasks entailed comprehension practice of student-generated content. Most assignments included listening comprehension practice, followed by audio and video recordings simulating real-life communication. Students completed these tasks individually or collaboratively. Teachers kept the balance between the flexibility of individual work and with benefits of collaborative activities. The feedback showed that student-generated materials are an advantage of course design. The teachers engaged learners in meaning-making activities. It created a supportive and constructive environment. Learners were proud of completing their projects and collaborating with others. MALL helped them to comprehend the content of learning better and simplified the learning process.

Another characteristic of course design is communication in a real-life context. Context mediated meaning-making. Students could find visual and audio clues surrounding them in an authentic communication situation. Context made the interaction meaningful through cultural artifacts. It created the environment of language in action.

Discussion

The study aimed to investigate the functional characteristics of MALL instructional design.

The researchers defined the main characteristics of effective instructional MALL design. The course instructional design should incorporate the following features: 1) task-specific directions and resources (audio podcasts and related text-based materials; a selection of device-specific applications or web-based tools for the creation of multi-media artifacts; 2) information on to the use of build-in CMC tools (audio podcasts and scripts) (Palalas, 2011); 3) information regarding the pedagogical approach and proven language learning strategies, partially student-generated (audio podcasts and scrips) (Palalas, 2011); 4) help options including communication with the facilitator and a class blog (Palalas, 2011); 5) proven linguistic references and language resources, including software and applications; 6) uploading and publishing tools for student-generated artifacts; 7) viewing options for collaboratively created databases; 8) repository of students' questions and impromptu reflections (Palalas, 2011); 9) summative evaluation of all the constituent parts of the suite (text-based survey). These findings are in agreement with the research of Palalas (2011).

The preliminary stage, this research faced the same problem as Isbell et al. (2017) had. Students thought that the private nature of mobile phone communication created barriers when they used personal mobile phones for learning activities. Sam and Shalini (2021) mentioned the same difficulties coursed by psychological factors.

Some learners also experienced difficulties in self-study and self-regulated learning at the enactment stage of the pilot study. They felt the lack of teacher guidance in the process of out-of-class learning. These limitations of MALL, called by Sam and Shalini (2021) pedagogical factors, became the central issue of teacher scaffolding. The teachers initiate the learners into a learning environment where they provide an initial frame and then gradually eliminate the support to allow learners to take charge of their learning (Park, 2011). The language task-specific help made students more independent and responsible for their learning. This research is in a common course

with the scientists who develop self-directed mobile language learning (Kukulka-Hulme, 2021; Corgi, 2021).

Analyzing students' feedback showed that learners are the critical link on the web. The research proved the importance input of students in the instructional MALL design of the course, as Kartchava and Nassai (2021) suggested. Through the observation of their activity and the dynamic process of learning the language espoused by that MALL solution that the study will seek to determine the optional instructional design for acquiring language skills (Palalas, 2011). These thoughts are in agreement with the findings of Kukulka-Hulme (2021). A learning design has to include the use of a mobile application as a task. The practitioners can detect an interest in some interpersonal and thinking skills that might support language acquisition.

The study revealed some affective aspects of learning linked to motivation. The research showed that students enjoyed the MALL experience. Learning the language became self-motivated and self-organized. These statements are similar to the thoughts of Cronje (2020), who thinks that the learners' activities aim to *explain, describe, develop, explore*, and combine with discipline-specific areas of common interest and concern, language skills, personal experience, and learner engagement.

The findings proved that MALL provides excellent benefits for EFL students and has the following teaching implications:

- 1) Teachers should facilitate students when using MALL technology and have to meet contradictions and confusions the learners may face.
- 2) Teachers must find a way to monitor and control the process of MALL.
- 3) The MALL system aims to help learners master their fluency in written and spoken English.
- 4) Teachers must show students how to work with and without a teacher, conduct projects, and use devices in group work and discussions.

Conclusion

The research investigated how MALL instructional design can enhance out-of-class foreign language learning. The study defined the main characteristics of effective instructional MALL design that the course should incorporate. The findings offer suggestions for understanding the benefits, disadvantages, and challenges of embracing MALL as a method of teaching a foreign language.

The results show how students can construct an out-of-class MALL experience. The effective MALL design of the course offers flexible language learning, which has a perspective of being interactive, engaging, authentic, contextualized, connected, and supported by appropriate scaffolding. It provides a natural environment for language users. Students collaboratively construct real-life interactions. It helps them to see the language as an open system expended by MALL. This research shows how student feedback stimulates investigation into MALL instruction and evaluation of its design.

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References

- Arvanitis, P. & Krystalli, P. (2021). Mobile Assisted Language Learning (MALL): Trends from 2010 to 2020 Using Text Analysis Techniques. *European Journal of Education*, 4 (1), 13-22. Retrieved from https://revistia.org/*les/articles/ejed_v4_i1_21/Arvanitis.pdf
- Azar, A. S. & Nasiri, H. (2014). Learners' Attitude toward the Effectiveness of Mobile Assisted Language Learning (MALL) in L2 Listening Comprehension. *Social and Behavioral Sciences*, 98, 1836-1843. DOI: <http://doi.org/10.1016/j.sbspro.2014.03.613>
- Bernacki, M. L., Greene, J. A. & Crompton, H. (2020). Mobile technology, learning, and achievement: Advantages in understanding and measuring the role of mobile technology in education. *Contemporary Educational Psychology*, 60. Retrieved from <https://mobt3ath.com/uplode/books/book-97227.pdf>
- Buabeng-Andoh, C. (2021). Exploring University students' intention to use mobile learning: A research model approach. *Education and Information Technologies*, 26 (1), 241-256. Retrieved from https://www.researchgate.net/publication/342696065_Exploring_University_students'_intention_to_use_mobile_learning_A_research_model_approach
- Burston, J. (2021). Unreported MALL studies: What difference do they make to published experimental MALL research results? In V. Morgana, & A. Kukulska-Hulme (Eds.), *Mobile assisted language learning across educational contexts. Routledge Focus on Applied Linguistics*. Retrieved from <https://www.degruyter.com/document/doi/10.1515/jccall-2021-2002/html>
- Cicah, N., Irmawati, C., Adi, S., Wina W., & Syamsul, B. (2020). Mobile-Assisted Language Learning (MALL): Students' Perception and Problems Toward Mobile Learning in English Language. *Journal of Physics: Conference Series* 1641 (2020). Retrieved from <https://iopscience.iop.org/article/10.1088/1742-6596/1641/1/012027/pdf>

- Chinnery, G. (2006). Emerging technologies going to the MALL: mobile assisted language learning. *Language Learning & Technology*, 10. Retrieved from https://revistia.org/*les/articles/ejed_v4_i1_21/Arvanitis.pdf
- Corgi, (2021). *Effect of Mobile Assisted Language Learning*. Retrieved from <https://studycorgi.com/effect-of-mobile-assisted-language-learning/>
- Cronje, J. C. (2020). Designing questions for research design and design research in e-learning. *Electronic Journal of e-Learning*, 18 (1), 13-24.
- Dashtestani, R. (2016). Moving bravely toward mobile learning: Iranian students' use of mobile devices for learning English as a Foreign Language. *Computer Assisted Language Learning*, 29 (4), 815-832. DOI: <https://doi.org/10.1080/09588221.2015.1069360>
- David, B., Yin, C., & Chalon, R. (2009). Contextual Mobile Learning: Principles and Nutritional Human Being Case Study. *IADIS International Conference Mobile Learning 2009*, Feb 2009, Barcelona, Spain. pp.150-159.
- Dina, A. T. & Ciornei, S.I. (2013) The advantages and disadvantages of computer assisted language learning and teaching for foreign languages. *Procedia Social and Behavioral Sciences*, 76, 248-252. DOI: <http://doi.org/10.1016/j.sbspro.2013.04.107>
- El-Hussein, M. O. M, & Cronje, J. C. (2010). Defining Mobile Learning in the Higher Education Landscape. *Education Technology & Society*, 13(3), 12-21.
- Erlam, R., Phip, J. & Feick, D. (2021) Digital Media in the Language Classroom. In *Teaching Languages to Adolescent Learners from Theory to Practice*, pp. 135-157. Cambridge University Press. DOI: <https://doi.org/10.1017/9781108869812.008> Retrieved from: Digital Media in the Language Classroom (Chapter Seven) - Teaching Languages to Adolescent Learners (cambridge.org)
- Hwang, G. J., & Chang, S. C. (2021). Facilitating knowledge construction in mobile learning context: A bi-directional peer-assessment approach. *British Journal of Educational Technology*, 52(1), 337-357.
- Jarvis, H. & Achilleos M. (2013). From Computer Assisted Language Learning (Call) to Mobile Assisted Language Use (MALU). *TESL-EJ*, 16(4), 1-18. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1004355.pdf>
- Isamiddinova, S. F. (2019). Mobile Applications as A Modern Means of Learning English, Int. Conf. Inf. Sci. Commun. Technol. Appl. Trends Oppor. ICISCT, pp.1-5.
- Isbell, D.R., Rawal, H., Oh, R. & Loewen, S. (2017). Narrative perspectives on self-directed foreign language learning in a computer- and mobile-assisted language learning context. *Languages*, 2 (2):4. DOI: <https://doi.org/10.3390/languages2020004>
- Kartchava, E. & Nassaii, H. (2021). Corrective Feedback in Mobile Technology-Mediated Contexts. In *The Cambridge Handbook of Corrective Feedback in Second Language Learning and Teaching*, pp.520-538. Cambridge University Press.
- Kukulka-Hulme, A., Lee, H. & Norris, L (2017). Mobile learning revolution: Implications for language pedagogy. In Chapelle, C.A. & Sauro, S (eds.) *The handbook of technology and second language teaching and learning* (pp.217-233). Hoboken: John Wiley & Sons.
- Kukulka-Hulme, A. (2021a). Conclusions: A lifelong perspective on mobile language learning. In V. Morgana, & A. Kukulka-Hulme (Eds.), *Mobile assisted language learning across educational contexts. Routledge focus on applied linguistics* (pp. 122-133). Abingdon: Routledge.

- Kukulka-Hulme, A. (2021b). Reflection on research questions in mobile assisted language learning. *Journal of China Computer-Assisted Language Learning*, 1(1), 28-46. Retrieved from: <https://www.degruyter.com/document/doi/10.1515/jccall-2021-2002/html>
- Lave, J. & Wenger, E. (1991). *Situated learning: legitimate peripheral participation*. New York: Cambridge University Press.
- Lee, K. (2000). English Teachers' Barriers to Use of Computer-assisted Language Learning. *The Internet TESL Journal*, 6 (12). Retrieved from <http://iteslj.org/Articles/Lee-CALLbarriers.html>
- Lee, Y. M. (2021). Digital skills of mobile journalists: Exploring learning needs and learner experiences of just-in-time learning with smartphones. *Journalism and Mass Communication Educator*. Retrieved from <https://journals.sagepub.com/doi/full/10.1177/10776958211001692>
- Loewen, S., Crowther, D., Isbell, D.R., Kim, K.M., Maloney J., Miller, F.Z., & Rawal, H. (2019). Mobile assisted language learning: A Duolingo case study. *ReCALL*, 31 (3), 293-311. Retrieved from <https://ru.scribd.com/document/514669937/mobile-assisted-language-learning-a-duolingo-case-study>
- Moya, S., & Camacho, M. (2021). Identifying the key success factor for the adoption of mobile learning. *Education and Information Technologies*, 26, 3917-3945. DOI: <https://doi.org/10.1007/s10639-021-10447-w>
- Nino, A. (2015). Language learners' perceptions and experience on the use of mobile applications for independent language learning in higher education. *IAFOR Journal of Education*, 3, 73-84.
- Nuraeni, C. (2021). Maximizing Mobile-Assisted Language Learning (MALL) aim Covid-19 Pandemic: Teacher's Perception. *Metathesis: Journal of English Language Literature and Teaching*. 5 (1), 11-18. DOI: <https://doi.org/10.31002/metathesis.v5i1.3336>
- O'Malley, C., Vavoula, G, Glew, J., Taylor, J., Sharples, M., Lefrere, P., Lonsdale, P., Naismith, L, & Waycott, J. (2005). *Mobilelearn – Guidelines for Learning/Teaching/Tutoring in a Mobile Environment*. Nottingham: University of Nottingham. Retrieved from <http://hal.archivesouvertes.fr/docs/00/69/62/44/PDF/OMalley-2005.pdf>
- Oz, H. (2015). An Investigation of Preservice English Teachers' Perceptions of Mobile Assisted Language Learning. *English Language Teaching*, 8 (2), 22-35. Retrieved from <https://www.ccsenet.org/journal/index.php/elt/article/view/44498>
- Palalas, A. (2011). Mobile-assisted language learning: designing for students. In S. Thousny & L. Bradley (Eds.), *Second language teaching and learning with technology: views of emergent researchers* (pp. 71-94). Retrieved from: https://www.academia.edu/2033108/Palalas_A._2011._Mobileassisted_language_learning_designing_for_your_students._In_S._Thou%3%ABSny_and_L._Bradley_Eds._Second_language_teaching_and_learning_with_technology_views_of_emergent_researchers_pp._71-94._Dublin_Researchpublishing.net
- Park, Y. (2009). A pedagogical framework for mobile learning: Categorizing educational applications of mobile technologies into four types. *The International Review of Research in Open and Distributed Learning*, 12 (2), 78-102. Retrieved from: https://*les.eric.ed.gov/fulltext/EJ1127143.pdf

- Sam, P.D. & Shalini, R. (2021). Limitations and Advantages in Implementing MALL in the Tertiary ESL Classrooms: A review. *International Journal of Recent Technology and Engineering (IJRTE)*, 9 (5), 27-32. DOI: <https://doi.org/10.35940/ijrte.E5097.019521>
- Sato, T., Murase, F., & Burden, T. (2020). An empirical study on vocabulary recall and learner autonomy through mobile-assisted language learning in blended learning settings, *Calico Journal*, 37(3), 254-276. Retrieved from <https://journal.equinoxpub.com/CALICO/article/view/18591>
- Shyamlee, S. D., & Phil, M. (2012). Use of Technology in English Language Teaching and Learning: An Analysis. In *International Conference on Language, Medias and Culture*, 33, 150-156. Retrieved from <https://www.semanticscholar.org/paper/%22Use-of-Technology-in-English-Language-Teaching-and-ShyamleePhil./8a648bf836bbed27c1a44195aa389d8b8841cf50>
- Stockwell, G. & Hubbard, P. (2013). *Some Emerging Principles for Mobile-Assisted Language Learning*. Monterey, CA: The International Research Foundation for English Language Education. Retrieved from http://www.tirfonline.org/wp-content/uploads/2013/11/TIRFMALLPapers_StockwellHubbard.pdf
- Taj, I.H., Sulan, N.B., Sipra, M.A., & Ahmad, W. (2016). Impact of Mobile Assisted learning (MALL) on EFL: A Meta –Analysis. *Advances in Language and Literary Studies*, 7 (2). Retrieved from *Advances in Language and Literary Studies* (ed.gov)
- Taylor, J. (2006). Evaluating mobile learning: What are appropriate methods for evaluating learning in mobile environments? In M. Sharples (ed.), *Big issues in mobile learning* (pp.25-27). University of Nottingham.
- Warschauer, M. & Healy, D. (1998) Computers and language learning: An overview. *Language Teaching*. 31 (1). 57-71. Retrieved from <http://catdir.loc.gov/catdir/samples/cam031/2001269254.pdf>
- Wong, L.H., & Looi C.K. (2012). Vocabulary learning by mobile-assisted authentic content creation and social meaning making: two case studies. *Journal of Computer Assisted Learning*, 26 (5), 421-433. DOI: <https://doi.org/10.1111/j.1365-2729.2010.00357.x>
- Yükselir, C. (2017). A Meta-synthesis of Qualitative Research about Mobile Assisted Language Learning (MALL) in Foreign Language Teaching. *Arab World English Journal*, 8 (3). DOI: <https://dx.doi.org/10.24093/awej/vol8no3.20>

Saudi Female EFL Teachers' Cognition and Practices Regarding Online Corrective Feedback in Speaking Class

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Abstract

The study of teachers' cognition and classroom practices about online corrective feedback in English language teaching is a recent trend in research. However, there is a paucity of studies on teachers' practices and cognition of online corrective feedback in speaking class. Therefore, this study attempts to bridge this research gap by investigating Saudi female English language teachers' cognition and practices related to corrective feedback in an online speaking setting. The main question of this study is What are Saudi female EFL teachers' practices and tacit beliefs about online corrective feedback? The participants of the study were five Saudi female teachers. This study applied a qualitative case study approach dealing with in-depth data collection instruments, including online class observations followed by face-to-face semi-structured and stimulated recall interviews, which interacted with each other through a practical argument process. The results revealed how the teachers' online corrective feedback beliefs shaped their practices. The observational data revealed that all five teachers corrected most of their students' errors using various online corrective feedback strategies. The observational data revealed that most teachers used output-prompting strategies more commonly than input-providing strategies, reflecting teachers' interest in prompting self-correction discovery and reducing the students' need for assistance. This study thus provides a deeper insight into the complexity of teachers' cognitions and practices regarding online corrective feedback. Implications of the findings of this study in teacher education are highlighted, and recommendations for further research are suggested.

Keywords: Corrective feedback, online corrective feedback, speaking, tacit belief teacher cognition

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Introduction

Many educational researchers view the study of teacher cognition as a paradigm shift in research on teaching. Earlier educational researchers aimed to determine a casual or a correlative relationship between specific teaching behaviors and learning outcomes. In the last two decades, teacher educators began to realize that teacher behavior in class is not mainly determined by prescribed principles and theories developed for teachers by pedagogical experts, commonly referred to as *Received Theory* in the literature. Rather, the chief determinant of teachers' behavior in class is their *Theory of Action*, commonly defined as a set of tacit beliefs about what constitutes effective language teaching and learning.

In recent years, the study of teacher cognition has also emerged in the field of teaching English as a Second or Foreign Language (EFL). Several studies have investigated teacher cognition regarding their teaching practices of planned instructions of teaching such as teaching grammar and reading instruction; while others have investigated unplanned instructions such as Corrective Feedback (CF). In fact, most of the studies in teacher cognition regarding CF have mainly focused on teachers' stated beliefs (conscious/explicit beliefs) which reflect teachers' perceptions of ideal practices, that may not be reflected in their actual classroom practices (Ellis, 2012). However, very few studies explore tacit beliefs (unconscious/ implicit beliefs) of teachers about their CF practices to help teachers grow professionally. Moreover, most importantly, in line with the development of today's world in technology, teacher feedback has also moved beyond the traditional to an online setting. To the best of the author's knowledge, no study has focused exclusively on foreign language teachers' cognition (i.e., tacit/implicit beliefs) and practices relating to online CF and in particular in a speaking setting. Therefore, the present study is an attempt to explore teachers' tacit beliefs and practices regarding online corrective feedback in speaking class. More specifically, the study is a preliminary attempt to answer the following questions:

1. How do Saudi female EFL teachers practice online corrective feedback?
2. What are Saudi female EFL teachers' tacit beliefs about online corrective feedback?
3. What is the relationship between Saudi female EFL teachers' tacit beliefs about online corrective feedback and their classroom practices?

Literature Review

To answer the above research main questions, an attempt is made to undertake a critical review of the literature in two major areas—teacher cognition in language teaching in general and online oral corrective feedback in particular—as well as of studies related to the present study.

Teacher Cognition

The development of teacher cognition teems with labels and definitions that reflect the complex nature of teacher mental constructs. Borg (2006) cited over 30 terms and definitions used to refer to teacher cognition. Borg (2006) attributed such complexity to “the fact that identical terms have been defined in different ways and different terms have been used to describe similar concepts” (p. 35).

In fact, the main confusion and complexity in defining teacher cognition are mainly based on the distinction between teacher knowledge and belief (Borg, 2006; Pajares, 1992). Some researchers have clarified in their definitions of teacher belief that these two concepts are different. According to Pajares (1992), the most common distinction used in definitions is that “belief is based on evaluation and judgment; knowledge is based on objective fact” (p. 313). However, some researchers considered knowledge as a personal construct; thus, a teacher’s belief and knowledge are “inextricably intertwined” in the teacher’s mind (Verloop, Van Driel, & Meijer, 2001, P.), which makes it impossible to distinguish between them (Borg, 2003; Woods & Çakır, 2011).

Another further distinction that confuses confusion in defining teacher cognition which is important in understanding teacher behavior in class, is the distinction between two types of teacher beliefs—that is, stated (conscious/explicit beliefs) and tacit (unconscious/ implicit beliefs). Argyris and Schon (1974) stated that an individual *Theory of Action* consists of an *Espoused Theory* and a *Theory-in-Use*. The espoused theory comprises a set of stated beliefs, which are defined as “statements teachers made about their ideas, thoughts, and knowledge that are expressed as evaluations of ‘what should be done, ‘should be the case’, and ‘is preferable” (Basturkmen, Loewen, & Ellis, 2004, p. 244). This type of belief is usually informed by teachers’ technical knowledge about teaching (i.e., *Received Theory*) (Phipps & Borg, 2009). Theory in use, on the other hand—which is the focus of this study—comprises a set of tacit beliefs underlying a teacher’s actual classroom practices. It is generated from the teacher’s experiences as a learner and a teacher as well as his/her reflections on these experiences (Borg, 2006). It cannot be articulated and can only become explicit through reflection, which may end up changing a teacher’s beliefs. This type of belief is usually informed by teachers’ *personal practical knowledge* (i.e., *Theory-in-Action*). As a result, Borg (2006) defined teacher cognition as “an often tacit, personally-held, practical system of mental constructs held by teachers and which are dynamic—i.e., defined and redefined on the basis of educational and professional experiences throughout teachers’ lives” (p. 35).

As a tacit element of teachers’ professional practice, teacher cognition is not readily understood. However, some generally accepted assumptions supported by literature can provide some insights into the nature of this construct and its relationship to what teachers do. One main assumption is that teacher cognition is a situated cognition that is formed and developed through their experiences in a range of real-life teaching and learning situations (Putnam & Borko, 2000). The second assumption is that the origin of teachers’ tacit beliefs lies in their experiences as learners. According to Borg (2004), a teacher teaches similarly to his or her own prior teachers when in an apprentice-like situation, as a result of spending thousands of hours as schoolchildren observing and evaluating their teachers’ actions. The third assumption is that teachers’ tacit beliefs act as a filter that shapes their interpretation of new information. By the time prospective teachers enter college, their established cognition filters the formal professional knowledge to which they will be exposed in their educational courses (El-Okda, 2005). The fourth assumption is that teachers’ tacit beliefs have a long-term influence on their classroom practices. Teachers’ tacit beliefs constitute the chief determinant of their behavior in class (Borg, 2009). Woods and Çakır (2011) insisted that teachers’ practice is “the actual instantiation” of tacit beliefs at a particular moment and at a particular place (p. 386).

Corrective Feedback

Feedback is an essential element of instruction in second or foreign language teaching (Ellis, 2009). In the general literature on language classroom teaching, the term feedback is defined as “information that is given to the learner about his or her performance of a learning task usually with the objective to improve his/her performance” (Ur, 1996, p. 242). Feedback can be either positive or negative. Positive feedback “affirms that a learner’s response to an activity is correct” (Ellis, 2009, p. 3). It may include verbal response, such as praise, or nonverbal response, such as nodding of the head. According to Nunan (1991), positive feedback serves two main functions: “to let students know they have performed correctly” and “to increase motivation through praises” (p. 195). Negative feedback, on the other hand, indicates that learners’ use of the target language is inaccurate or incorrect (Ellis, 2009). Different terminologies have been used interchangeably in the literature to refer to errors and their corrections, such as negative feedback, corrective feedback, error correction, and error treatment. However, the term corrective feedback, which is used in this study, is the most popular term in second and foreign language teaching (Schachter, 1991).

The concept of CF has received much attention in second language acquisition (SLA) and language pedagogy research (Ellis, 2009); however, there has always been disagreement about whether to correct errors, when to correct errors, which errors to correct, how to correct errors, and who should correct errors (Hendrickson, 1978). Teacher cognition about CF is expected to contribute to a more complete interpretation and understanding of CF. Traditionally, CF has played a significant role in language teaching. Behaviorists view errors as an indication of the inadequacy of practice and believe that the teacher should immediately and explicitly correct errors before bad habits can develop. However, in the 1970s and the 1980s, the nativists’ perspective cast doubt on the behaviorist perspective. They advocated a complete emphasis on meaningful communication and a rejection of conscious grammar teaching and explicit CF. One of the most influential proponents of this view was Krashen (1985), who argued that language, particularly linguistic forms, can only be acquired consciously and implicitly from comprehensible input. However, despite the generally successful implementation of Krashen’s input hypothesis, students generally failed to acquire certain linguistic forms despite being exposed to plenty of comprehensible input (Swain, 2005). To respond to this situation, a strong reconsideration of CF’s role in facilitating language acquisition has emerged among the proponents of both cognitive learning theories. Swain (1985) clarified that comprehensible input is essential but not sufficient for language learning; therefore, learners need to engage in tasks that require them to produce comprehensible output. To this end, she insisted that oral CF strategies aimed at prompting accurate output (e.g., through elicitation, metalinguistic feedback, clarification requests, and repetition) can prompt learners’ interlanguage. Schmidt (1990) argued that noticing or conscious awareness is essential for learners to develop their target language. As a result, Long (1996) updated his interaction hypothesis by emphasizing the role of CF, and explained, “environmental contributions to acquisition are mediated by selective attention and the learner’s developing L2 processing capacity, and that these resources are brought together most usefully, although not exclusively, during negotiation for meaning” (p. 417).

Several studies have been conducted to investigate the different types of CF strategies. In an often-cited descriptive study, Lyster and Ranta (1997) identified the following six CF types based on teacher-student interaction in French immersion classrooms.

1. *Explicit correction*: The teacher explicitly provides the student with the correct form.
2. *Recast*: “The teacher’s reformulation of all or part of a student’s utterance, minus the error” (Lyster & Ranta, 1997, p. 46).
3. *Clarification request*: The teacher indicates that “a repetition or a reformulation is required” (Lyster & Ranta, 1997, p. 47). A clarification request includes phrases such as “pardon,” “sorry,” or “I do not understand.”
4. *Metalinguistic clues*: The teacher comments on, provides information about, or questions the well-formedness of the student’s utterance without providing the correct form (Lyster & Ranta, 1997, p. 47).
5. *Elicitation*: The teacher elicits the correct form by asking questions, directly asks students to reformulate their utterances, or elicits completion of students’ utterances by “pausing” to allow students to “fill in the blank.”
6. *Repetition*: The teacher’s repetition in isolation of the student’s ill-formed utterance.

Ellis (2009) added another kind of CF—*paralinguistic signal*, which refers to the use of body language to provide feedback. Sheen (2011) suggested one more category of *explicit correction with a metalinguistic explanation* in which he combined two strategies. These CF strategies differ along with a range of dimensions, such as the degree of explicitness or implicitness and the requirement for input provision and output production (Pawlak, 2013). Ellis (2009), for example, classified CF strategies into two broad categories—input-providing and output-prompting—with strategies in each category further divided into implicit or explicit (see Table one).

Table 1. *Taxonomy of CF Strategies*

Strategy	Implicit	Explicit
Input-providing	Recast	Explicit correction
Output-prompting	Repetition Clarification request	Metalinguistic explanation Elicitation Paralinguistic signal

Note 1. Ellis (2009, p. 8).

Online Corrective Feedback

Warschauer and Ware (2006) describe online feedback as “a means by which human feedback can be provided by technology” (p. 109). Computer-Mediated Communication (CMC) technologies have provided some online platforms for providing feedback such as Blackboard, Google Classroom, Teams, Padlet, and more. Online feedback can be provided through these platforms either in a text-based form or audio using a video or recorder.

Providing online feedback has some benefits, such as (1) overcoming time and place constraints, (2) increasing the provision of constructive feedback (Liou & Peng, 2009; Pham & Usaha, 2016,) (3) developing the learner’s linguistic accuracy and fluency (Tseng & Yeh, 2020) and (4) facilitating feedback personalization and reducing students’ anxiety about receiving immediate feedback in a face-to-face setting (Martin, Alvarez, & Espasa, 2022).

Corrective Feedback and Teacher Cognition

Empirical research on CF has grown rapidly over the last few decades. One of the recent subsets of inquiry in CF research is concerned with teachers' beliefs behind their CF behavior (Mori, 2011). Most studies relating to this inquiry have been qualitative in nature with their focus on investigating teachers' stated beliefs about CF and their relation to classroom practices (Alkhamash & Gulnaz, 2019; Althobaiti, 2012). Only a few studies like those of Atai and Shafiee (2017), Mori (2011), and Shafiee, Nejadghanbar, and Parsaiyan (2018) have examined teachers' tacit beliefs about oral CF.

Mori (2011) qualitatively analyzed how the tacit beliefs of two English as a Foreign Language (EFL) in-service teachers shaped their CF practices in a Japanese context and how these types of beliefs are affected by social, cultural, personal, and experiential factors. Another study was conducted by Atai and Shafiee (2017) to investigate the pedagogical knowledge base underlying the oral CF provided by three Iranian EFL teachers in grammar instruction. The authors inferred 19 categories that were classified into three major themes: "professional knowledge" (i.e., knowledge of form-focused instruction), "procedural knowledge" (i.e., knowledge of reactive focus-on-form in grammar lessons), and "personal knowledge" (i.e., knowledge of classroom management regarding oral CF). Shafiee, Nejadghanbar, and Parsaiyan (2018) investigated teachers' cognitions underlying the provision of oral CF, as well as the transformative role of reflective inquiry for a male in-service EFL teacher as an ongoing development vehicle. The teacher showed an increased awareness of his informed online decisions and critical reflections and evaluations of the status, including facing administration constraints, criticizing teacher recruitment standards, and evaluating his and his colleagues' error treatments. However, to the best of the researcher's knowledge, none of these studies consider teachers' cognition and practices regarding CF in a speaking class. Speaking is one of the major skills in language learning. Through corrective feedback, the students will be able to practice speaking effectively without hesitation of making mistakes during their communication with others.

Furthermore, with the developments of e-learning platforms especially during the crisis of the Covid-19 pandemic, some studies have been conducted to investigate teachers' perceptions of e-learning in general. A few studies have been conducted to investigate teachers' perceptions of giving online feedback in writing classes (Ab Hamid & Romly, 2021). However, to the best of the researcher's knowledge, none of those studies consider teachers' cognition and practices regarding the online speaking class. This study attempts to enrich the body of literature by exploring Saudi Female EFL tacit beliefs and practices about online corrective feedback and the relationship between them.

Methods

Research Design

The present study adopted a multiple case study design which is a common qualitative research design. This type of design had been chosen because it could generate a rich and detailed description of each case, which contributed to an in-depth understanding of a highly complex phenomenon, namely teachers' tacit beliefs in relation to their classroom practices.

Participants

The participants were five Saudi female EFL pre-service teachers. The preservice teachers were fourth-grade students in Languages and Translation College at Imam Muhammad bin Saud University who were experiencing practicum at schools in Riyadh, Saudi Arabia. Convenience sampling and purposeful sampling were chosen for participant recruitment. The participants of the study were volunteers who consented to participate by signing an informed consent letter. Through purposeful sampling, the cases who have completed their practicum process were selected purposefully. Moreover, due to the cultural restrictions, this study investigated the cognitions and practices of Saudi female EFL teachers exclusively, and thus no Saudi male EFL teachers were involved in it.

Data Collection Instruments

This study adopted a qualitative approach to explore teachers' tacit beliefs and practices. The duration of the study was one full semester (i.e., four months and three weeks). Since eliciting teachers' tacit beliefs was challenging, in-depth data collection instruments that involved multiple sources of information were used. These included online classroom observations, face-to-face semi-structured interviews, and stimulated recall interviews. These different methods of data collection interacted with each other through the use of the "practical argument" process. The practical argument is a formal elaboration of practical reasoning that "lays out a series of reasons that can be viewed as premises and connects them to a concluding action" (Fenstermacher & Richardson, 1993, p. 103). According to El-Okda (2005), these elicited premises will assist teachers to verbalize, modify, or change the tacit beliefs that constitute their theories of action.

Observation

Online classroom observations had been conducted by the researcher through the web/mobile application *MyU* (<https://myu.co/>). The observation scheme used by the researcher in this study comprised predetermined observation categories (i.e., CF strategies and error types based on Ellis's [2009] CF classification (see Table one) and field notes.

Semi-structured Interviews

Face-to-face semi-structured interviews, preceded by online class observations, were conducted at school with teachers every week throughout the semester. The semi-structured interviews followed a guide that included a set of open-ended questions and probes, which covered specific domains such as preferred CF strategies, relevance of these strategies to error types, and opinions regarding the effectiveness of each strategy.

Stimulated Recall Interviews

The stimulated recall interviews were associated with the semi-structured interviews, one day after the online observation of the teachers' feedback to overcome any obstacle that could result from the short-term memory of participants. For the stimulated recall, a simple interview guide based on the research questions was used and the stimulus was the transcripts of each teacher's preceded online CF sessions.

Each interview session usually lasted for approximately 45 minutes, during which data for each participant were collected until saturation was reached when additional data no longer

contributed further information. The interviews were audio-recorded and transcribed. A word processor was used to transcribe the digital recordings.

Research Procedures

The duration of the study was one full semester (i.e., four months and three weeks). Each teacher conducted an online speaking class once a week through the web/mobile application *MyU* (<https://myu.co/>). They uploaded the assigned speaking task of each unit following the school curriculum and assigned textbook. The students logged into their accounts using the access code generated by their teacher to submit their oral individual responses. The teacher in turn provided feedback to each student.

Data Analysis

The process of data analysis in this study comprised two phases: (1) analysis of teachers' OCF to explore their teaching practices, and (2) analysis of stimulated recall and semi-structured interview responses. The researcher first analyzed the online observational discourse of each teacher to identify OCF episodes as units of analysis and to code the OCF strategies according to Ellis's (2009) framework (see table one). As the feedback was provided either as text or audio, the paralinguistic signal was excluded from the analysis. However, Sheen's (2011) explicit correction with a metalinguistic explanation was included.

The researcher next performed inductive data analysis for the two types of interviews following the open, axial, and selective coding processes of the grounded theory. Excerpts of the transcribed data were highlighted and coded. The nodes feature in NVivo 10 was used to produce a list of open codes. Similar or compatible nodes (i.e., codes) were grouped together to identify a highly abstract level of connection between the codes to represent the main themes of the study.

To verify the dependability and reliability of the codes, the researcher applied inter-coder reliability. For observation coding, a second coder observed one online class for each teacher using a copy of the researcher's observation scheme and all definitions of the codes with examples. The researcher and the second coder convened and calculated a 75% agreement on the codes. For the interview coding, a list of the nodes (codes) and their descriptions were exported from the Nvivo analysis software and emailed to a colleague of the researcher along with the interview transcripts. There was an 80% agreement on the codes before reconciliation and 98% after reconciliation.

Results

Role of Online Corrective Feedback in Classroom

The findings of the study revealed that all five teachers held positive beliefs about the role of CF in online EFL classes. Though two of the teachers were not satisfied with their English teachers' corrective feedback when they were students at school, they believed that it is a must in the EFL classroom. However, the practices of these two teachers differed from the others in which they tried to provide positive feedback (i.e., praises) more than negative feedback (i.e., CF). Moreover, all the teachers reported that online CF decreases students' anxiety about receiving oral CF. The teachers believed that students fear receiving oral CF in front of their teachers and peers in traditional classes. One of the teachers argued, based on her previous experience as an EFL student, that oral CF in speaking traditional classrooms raises the anxiety of students as they often

focus on producing perfect language with perfect grammar. Three teachers reported that online CF gave them the chance to provide feedback to each student privately. This allowed them to understand students' differences and needs regarding their speaking skills.

All the teachers pointed out that the quantity of CF provided is one of the most valuable benefits of the online teaching setting. Two teachers reported that the online setting allowed them to provide approximately two times as much feedback as that in the traditional classroom. One of the teachers said, "I have much time to provide more precise and compatible feedback." Another commented that online CF allowed her to provide clearer and more detailed information that was not possible in a traditional class. The teachers argued that in traditional classrooms, they do not have time to give feedback to each student. One of the teachers said, "I am teaching 30 students in one class, so how can I deal with this number of students while providing feedback." She added, "MyU App saved my time and effort and gave me the chance to figure out my students' real level of proficiency."

Frequency of Online Corrective Feedback Strategies

It was found that the teachers corrected students' errors using a range of OCF strategies. The observational data revealed that most teachers used output-prompting strategies more commonly than input-providing strategies. This reflected their interest in prompting self-correction discovery and reduction of the students' need for assistance. Table two indicates that metalinguistic clues and elicitation were the most frequently used online CF strategies. Teachers believed that these two strategies provided students with the opportunity to retrieve their previous knowledge and correct errors according to what they already knew. Two of the five teachers believed that these two strategies allowed the students to use their higher-order thinking skills, while another added that these strategies helped students become less dependent upon their teachers. Furthermore, the teachers never used repetition to correct errors in online speaking classes. Some of them argued that they used this strategy in their traditional classes but avoided using it in this study because they were afraid that the students would not understand it.

Moreover, the teachers believed input-providing strategies to be more effective than output-prompting strategies in dealing with time limitations and the low level of proficiency of students that hindered the provision of oral CF. In particular, explicit correction with metalinguistic explanations was the most frequently used strategy. Teachers believed that this strategy not only indicated the student's errors but also provided them with explanations to help avoid making such errors. In addition, the teachers argued that the non-concurrent (i.e., asynchronous) mode of online communication gave them the chance to take their time to compose this type of feedback strategy.

Table 2. *Teachers' frequency of CF strategies*

OCF strategies	N	F
Input-Providing Strategies		
Recast	25	8%
Explicit correction	64	21%
Explicit correction with metalinguistic explanation	65	21%
Output-Prompting Strategies		
Metalinguistic clue	107	35%

Elicitation	131	42%
Repetition	0	0
Clarification request	18	5%

Frequency of Online Corrective Feedback Strategies about Types of Errors in Speaking

The observational data revealed that the selection of CF strategies was highly associated with the type of error related to speaking skills (i.e., lexical, phonological, grammatical, and fluency-related errors) For all five teachers, the data revealed that input-providing strategies were the most frequently used for correcting phonological and intonation errors (see tables three and four). The explicit correction was used to address phonological errors as it provided students with the correct form in a clearer, direct way. Some of the teachers articulated that students should hear correct pronunciation from a teacher rather than their peers because this pronunciation is more authentic. As for lexical and grammatical errors, output-prompting CF strategies, particularly elicitation and metalinguistic clues were the most frequently used strategies for correction (see table three). The teachers believed that output-prompting strategies would help students actively engage in the process of correction, which could ultimately help them to develop vocabulary and master grammar. Both elicitation and metalinguistic clues strategies were also highly associated with correcting fluency-related errors, with teachers believing that students just needed clues to guide them in their ideas to convey the meaning correctly.

Table 3. Teachers' frequency of OCF strategies in relation to error types

OCF Strategies	Error Types									
	Intonation		Pronunciation		Grammar		Lexical		Fluency	
	F	%	F	%	F	%	F	%	F	%
Input-Providing Strategies										
Recast	0	0%	5	2%	8	3%	12	4%	0	0%
Explicit correction	3	1%	54	17%	3	1%	4	1%	0	0%
Explicit correction with metalinguistic Explanation	1	0.3%	23	7%	26	8%	15	5%	0	0%
Output-Prompting Strategies										
Metalinguistic clue	1	0.3%	0	0%	40	13%	60	19%	6	2%
Elicitation	1	0.3%	25	8%	39	12%	56	18%	8	3%
Repetition	0	0%	0	0%	0	0%	0	0%	0	0%
Clarification request	0	0%	7	2%	2	0.6%	6	2%	3	1%

Furthermore, it was found that the teachers used audio when correcting phonological and intonation errors, and text when correcting grammatical, lexical, or fluency-related errors. One of the most interesting observations regarding metalinguistic comments was that half of the teachers related their comments to real-life to attract the students' attention. For example, two teachers used the name of the famous national football team, "Al-Hilal," to help their students guess the correct meaning of the words "national" and "fan" (see table four). Another teacher, who taught at a

Tahfeez school at the time of the study, used quotes from the Holy Quran or Prophet Mohammad (peace be upon him) while correcting students' errors to increase their motivation (see table four).

Discussion

In this study, the data confirmed that teachers' OCF practices were strongly driven by their tacit beliefs. As result, the teachers' OCF beliefs were congruent with their practices within this study. The observational data revealed that the five teachers corrected most of the students' errors. This reflected the strong effect produced by their positive tacit beliefs toward implementing OCF in EFL-speaking classrooms. All of the teachers believed that OCF was essential for improving their students' English. The data indicated that output-prompting strategies were more commonly used than input-providing ones. This practice highlighted the teachers' belief that output-prompting strategies were more effective than input-providing strategies due to their encouragement of self-correction. The last consistent aspect was reflected in the teachers' belief about the association between the choice of OCF strategy and the type of linguistic error.

Such findings echo the results of previous studies (Atai and Shafiee, 2017; Mori, 2011; Shafiee, Nejadghanbar, & Parsaiyan, 2018). The study of Mori (2011), for example, clarified how the tacit beliefs of two English as a foreign language (EFL) in-service teachers shaped their CF practices in a Japanese context and how these types of beliefs are affected by social, cultural, personal, and experiential factors. Thus, the finding of this study reemphasized that the tacit beliefs of the teachers exert a more powerful influence on their classroom practices than their stated beliefs, which are more akin to theoretical knowledge than to reality.

Furthermore, the data of this study showed that the teachers believed that CF in online classes is effective for mitigating problems regarding time, student anxiety, motivation, low levels of proficiency, and so on. In line with these findings, Mori (2011) indicated that students' anxiety is one of the main obstacles preventing the application of CF in traditional classes. His study revealed that oral CF in traditional classrooms raised the anxiety of Japanese students as they would often focus on producing perfect language with perfect grammar. Martin, Alvarez, & Espasa (2022), on the other hand, found in their study that online corrective feedback facilitated students' personalization and reduced the anxiety that they usually face while receiving immediate feedback in a face-to-face classroom setting. Similarly, the study by Tseng & Yeh (2020) shows that OCF reduced students' anxiety and helped them to develop greater linguistic accuracy in their English-speaking performance.

Conclusion

As indicated above, the present study is the first of its kind to focus on EFL teachers' tacit beliefs and practices in relation to online corrective feedback strategies in speaking class. The findings confirm that the teachers' tacit beliefs strongly informed their practices, as these tacit beliefs were congruent with their practices in this study. The observational data revealed that all seven teachers corrected most of their students' errors using various OCF strategies. This reflected the strong effect produced by their positive tacit beliefs toward implementing OCF in EFL classrooms. The teachers reported that the online CF motivates the students and decreases their anxiety about receiving oral CF in front of their teachers and peers.

The findings offer the following pedagogical recommendations to teachers, as well as future studies. As technology, in particular, the Internet has revolutionized teaching, it is recommended to replicate the current study in various online settings instead of a traditional one. Moreover, capturing CF in an online setting is a complex issue; hence, simplistic pedagogical prescriptions cannot reflect the reality in which teachers enact OCF. Therefore, teacher educators should emphasize the overwhelming number of factors (e.g., cognitive, affective, and contextual) that compete for influence over teachers' CF practices and illustrate how teachers can achieve balance in their choices. In addition, the findings highlight the importance of *practical argument* as a systematic collaborative dialogue between the teacher and others (e.g., a teacher educator or peers) to expose the underlying reasons for the behaviors of teachers (Fenstermacher & Richardson, 1993). Therefore, I recommend the incorporation of practical arguments in teacher education programs to raise teachers' awareness of their beliefs and practices. Such awareness could contribute to the development of their teaching practices, which is the fundamental goal of an educational training program. Notably, this argument aims to support rather than a judge to ensure effective support for teachers.

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References

- Althobaiti, N. S. (2012). *EFL teachers' beliefs, instructional practices and professional development about corrective feedback in Saudi universities*. Australia, (Unpublished Doctoral Dissertation). Queensland University.
- Alkhamash, R., & Gulnaz, D. (2019). Oral Corrective Feedback Techniques: An Investigation of the EFL Teachers' Beliefs and Practices at Taif University. *Arab World English Journal (AWEJ)* 10.(2),40-54.
- Argyris, C., & Schon, D. A. (1974). *Theory in practice: Increasing professional effectiveness*. Oxford, England: Jossey-Bass.
- Atai, M. R., & Shafiee, Z. (2017). Pedagogical knowledge base underlying EFL teachers' provision of oral corrective feedback in grammar instruction. *Teacher Development*, 21(4), 580–596.
- Basturkmen, H., Loewen, S., & Ellis, R. (2004). Teachers' Stated Beliefs about Incidental Focus on Form and their Classroom Practices. *Applied Linguistics*, 25(2), 243–272.
- Borg, M. (2004). The apprenticeship of observation. *ELT Journal*, 58(3), 274-276.
- Borg, S. (2006). *Teacher Cognition and Language Education: Research and Practice*. London: Continuum.
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36(2), 81-109.
- Borg, S. (2009). *Introducing language teacher cognition*. Retrieved November 15, 2016 from <http://scholar.google.com/scholar?cluster=3217369253416610816&hl=en&oi=scholar>

- El-Okda, M. (2005). EFL student teachers' cognition about reading instruction. *The Reading Matrix*, 5(2), 43-60.
- Ellis, R. (2009). Corrective Feedback and Teacher Development. *L2 Journal*, 1(1), 3-18
- Ellis, R. (2012). *Language Teaching Research and Language Pedagogy*. Malden, MA: Wiley-Blackwell.
- Fenstermacher, G. D., & Richardson, V. (1993). The elicitation and reconstruction of practical arguments in teaching. *Journal of Curriculum Studies*, 25(2), 101– 114.
- Hendrickson, J. M. (1978). Error correction in foreign language teaching: Recent theory, research, and practice. *The modern language journal*, 387–398.
- Ab Hamid, H., & Romly, R. (2021). Teachers' perception of giving feedback to students' online writing assignments during movement control order (MCO). In *First International Conference on Science, Technology, Engineering and Industrial Revolution (ICSTEIR 2020)* (pp. 461-464). Atlantis Press.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. Torrance, CA: Laredo Publication Company Inc.
- Long, M. H. (1996). The role of the linguistic environment in second language acquisition. *Handbook of second language acquisition*, 2(2), 413-468.
- Liou, H. C., & Peng, Z. Y. (2009). Training effects on computer-mediated peer review. *System*, 37(3), 514-525.
- Lyster, R. (1998). Recast, repetition, and ambiguity in L2 classroom second discourse. *Studies in language acquisition*, 20(1), 51-81.
- Lyster, R., & Ranta, L. (1997). Corrective Feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19 (01), 37–66.
- Mori, R. (2011). Teacher cognition in corrective feedback in Japan. *System*, 39(4), 451–467.
- Martin, S., Alvarez, I. M., & Espasa, A. (2022). Video feedback and Foreign Language Anxiety in online pronunciation tasks. *International Journal of Educational Technology in Higher Education*, 19(1), 1-16.
- Nunan, D. (1991). *Language teaching methodology*. New York: Prentice Hall.
- Pham, V. P. H., & Usaha, S. (2016). Blog-based peer response for L2 writing revision. *Computer Assisted Language Learning*, 29(4), 724-748
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332.
- Phipps, S., & Borg, S. (2009). Exploring tensions between teachers' grammar teaching beliefs and practices. *System*, 37(3), 380–390.
- Putnam, R. T. Borko, H. (2000). What Do New Views of Knowledge and Thinking Have to Say about Research on Teacher Learning? *Educational Researcher*, 29(1), 4-15.
- Sheen, Y. (2011). *Corrective feedback, individual differences and second language learning*. New York: Springer.
- Swain, M. (2005). *The output hypothesis: Theory and research*. in E. Hinkel (ed. *Handbook of Research in Second Language Teaching and Learning*, Mahwah, NJ: Lawrence Erlbaum.
- Shafiee, Z., Nejadghanbar, H., & Parsaiyan, S. F. (2018). Transformation of an EFL Teacher's Cognition Underlying Oral Corrective Feedback: A Case of Reflective Inquiry. *Teaching English Language*, 12(1), 1–30.
- Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11(2), 129-158.

- Schachter, J. (1991). Corrective feedback in historical perspective. *Second Language Research*, 7(2), 89-102.
- Tseng, S.S., & Yeh, H.C. (2019). The impact of video and written feedback on student preferences of English-speaking practice. *Language Learning & Technology*, 23(2), 145–158.
- Verloop, N., Van Driel, J., & Meijer, P. (2001). Teacher knowledge and the knowledge base of teaching. *International Journal of Educational Research*, 35(5), 441– 461.
- Ur, P. (1996). *A course in language teaching*. Cambridge: Cambridge University Press.
- Woods, D., & Çakır, H. (2011). Two dimensions of teacher knowledge: The case of communicative language teaching. *System*, 39(3), 381–390.
- Warschauer, M., & Ware, P. (2006). Automated writing evaluation: Defining the classroom research agenda. *Language teaching research*, 10(2), 157-180.

Appendices

Table 4. Examples of OCF strategies used to correct student errors

OCF strategies	Samples	Error Type
Metalinguistic clue	S: The lady <u>buy</u> a shoulder bag two days ago. T: It is the simple past, something that happened in the past.	Grammatical error
Explicit correction	S: They didn't listen /?/ to the radio yesterday. T: We do not say listen. We say listen /'ls.ən/	Pronunciation error
Elicitation	S: There are two colors: black and green. T: There are two colors: black and . . .	Lexical error
Recast	S: We were all in the museum/?/. T: Museum /'mju:zi.əm/	Pronunciation error
Explicit Correction with Metalinguistic Explanation	S: It is a <u>notion</u> team. T: No. It is a national team. The name of our national team is Al-Hilal and that of our international team is Saudi Falcons. Is it clear?	Lexical error
Explicit Correction with Metalinguistic Explanation	S: There were <u>three ladies</u> in the garden. T: You read the words in the sentence using the same tone. You should emphasize “three ladies” with a high tone. For example, you can say, “There were three ladies in the garden.”	Intonation error
Clarification request	S: I preferred to go alone. T: Sorry your idea was not clear. Can you clarify more?	Fluency error

An Exploration of Students' Willingness to Communicate in Thai EFL Online Classroom

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Abstract

This study aims at exploring the level of Thai EFL undergraduate students' willingness to communicate in English language online classrooms. The crucial evidence from students' voices was investigated through the mixed-methods paradigm, called exploratory sequential research design which employed a qualitative, followed by a quantitative approach to answer the main research question that investigated the levels of Thai EFL undergraduate students' willingness to communicate in English language online classrooms. In the first phase, qualitative data was collected and analyzed from focus group interviews to elicit the rich data in deep detail and explain some outstanding points of view from the participants at the university level. Then, the results from the qualitative phase were used as a guideline to develop the questionnaires which were relevant to the willingness to communicate in online classrooms. One thousand one hundred and nineteen participants ($N=1,119$) responded to the questionnaires. Results showed that the salient factors that influenced the level of students' willingness to communicate in online classrooms were communication channels, students' beliefs, peer influence, teachers' characteristics, teaching methods, and online classroom atmosphere. The findings of this study can create teachers' awareness when teaching online and can be used to seek out how to improve themselves and adjust their own teaching approach to enhance their students' online language learning outcomes in the future. Recommendations for further research are addressed in the end.

Keywords: English as a Foreign Language, online classes, Thai EFL undergraduate students, Thai EFL online classroom, willingness to communicate

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Introduction

Due to the COVID-19 pandemic, this crisis has suddenly affected the educational system all around the world. The Thai educational system has also been disrupted by this crisis. To control the spread of Coronavirus, schools and academic institutions are all shut down suddenly and the way of teaching has changed dramatically and shifted away from the normal classroom to online teaching and learning by using various digital platforms. Simply put, the face of Thai education has been transformed according to the spread of Coronavirus. Both teachers and students have to work and study from home which has never happened before and we inevitably have to face a new challenge and try hard to adapt ourselves to the new social setting. Therefore, learning online has been providing opportunities for more learners to continue their education according to the current situation. The emergence of online education has created a channel where students no longer need to be able to meet face-to-face in the normal classroom to complete a course. The convenience and flexibility can be offered by the familiar words “anytime”, and “anywhere” which meant that accessibility can be seen as an advantage in the area of online learning. This makes the students far more convenient than traditional classroom learning experiences (Berge, 1997; Harasim, 1990; Simonson, 2000).

In English classes, it is known that speaking is an important productive skill that will enhance students' oral communication. A high degree of willingness to communicate in a language classroom is required as Freiermuth and Jarrell (2006) pointed out that ineffective interaction and language production led to a lack of willingness. Encouraging students' willingness to speak in the online classroom has become a new challenge for English teachers nowadays after the Coronavirus pandemic. From the researcher's direct experience, the problem occurred when it was found to be a lot harder to create students' willingness to communicate while teaching online. For example, we don't know exactly whether they are still studying with us or not because they always turn off their cameras so it is quite challenging for the teacher to cope with that kind of situation. Therefore, the issue of students' willingness to communicate in an online classroom is worth conducting to build upon and expand existing knowledge in light of students' advantages.

Moreover, it is crucial to find out what makes some students willing to communicate while others are unwilling to communicate in an online classroom. This issue should be taken into consideration in the new changing face of English language teaching. Furthermore, it is worth noticing that most previous research studies were conducted in a normal classroom or face-to-face classroom, not in an online classroom as found in this study. For this reason, conducting research in an online classroom is considered equally important as it occurred in a normal classroom because the sudden outbreak of COVID-19 might change the face of foreign language education. In the Thai EFL classroom context, there has not yet been explored more of the level of students' willingness to communicate in online classrooms. To bridge this gap, this present study, therefore, aims to investigate the level of students' WTC in online classrooms because of the scarcity of research in this aspect.

Based on the research objective of this study, the current study addresses the following question.

RQ: What are the levels of Thai EFL undergraduate students' willingness to communicate in English language online classrooms?

Review of Literature

Willingness to Communicate

McCroskey and Baer(1985), McCroskey and Richmond(1990, 1991) developed the concept of the “Willingness to communicate” construct based on the original concept of the word “Unwillingness to communicate” (UWTC) proposed by Burgoon (1976). She originally proposed and validated the measurement of unwillingness to communicate within the native language context only. The concept of unwillingness to communicate was interrelated among anomia and alienation, introversion, self-esteem, communication apprehension, and reticence. Consequently, people tend to avoid and/or devalue oral communication.

Later, the WTC construct was first used and developed by McCroskey, Fayer, & Richmond(1985), and the study was conducted regarding communication in the native language. The term “willingness to communicate” has been defined as the underlying tendency to talk to others which are rooted in a personality variable. They also highlighted that communication competence, communication apprehension, self-esteem, and cultural diversity can be counted as predecessors of WTC. Regarding culture, they also suggested that any kind of generalization should be done with that issue. MacIntyre and Charos(1996) developed path analysis to explore the relationships among the variables to predict willingness to communicate in the first language. They also examine the impact on the frequency of second language communication, and the role of global personality traits. The effect of significant paths on the frequency of communication from the willingness to communicate in the second language, language learning motivation, perceived L2 communicative competence, and also the opportunity for contact with second language speakers were found in this study. Moreover, they indicated that global personality traits and language-related affective variables initiated the psychological context for second language communication. According to the definition of WTC, MacIntyre, Clément, Dornyei, and Noels (1998) defined it as the readiness of learners to enter into conversation at a particular time with a specific person or person using the second language.

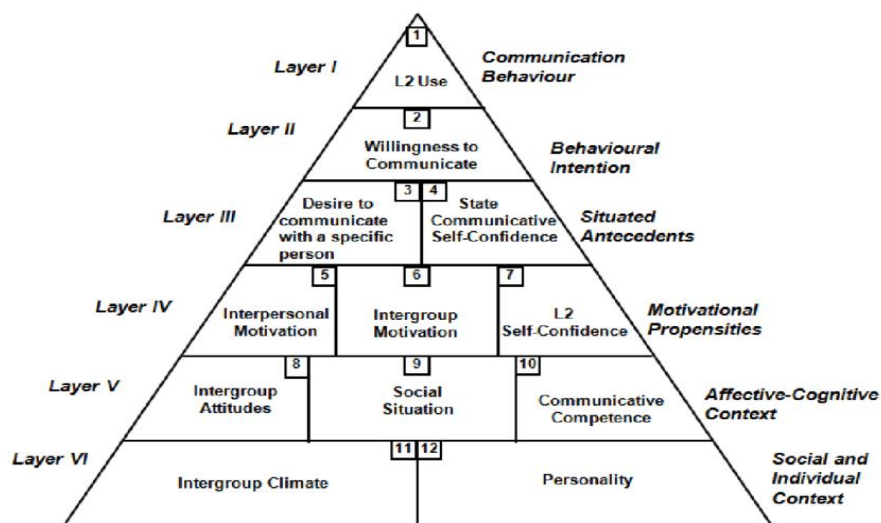


Figure 1. Heuristic model of variables influencing WTC (MacIntyre et al., 1998, p. 547)

Figure one demonstrated the Heuristic model of variables influencing WTC. It revealed that L2 learners' communication behaviors were influenced by the interrelation among social and

individual contexts, affective cognitive context, motivational propensities, situated antecedents, and behavioral intention. However, this model was argued by Wen and Clement (2003) that can only be implemented in the Western context. However, this model can be used as a reference in both Western the Eastern context nowadays.

From previous studies, the notions of willingness to communicate (MacIntyre et al., 1998; Hashimoto, 2002; Vongsila & Reinders, 2016), willingness to talk (Menzel & Carrell, 1999), and willingness to speak (Riasati, 2012; Hsu & Huang, 2017) can be referred to as the similar concept as it appears in this study. Encouraging language learners to communicate effectively is a major goal of language teaching. It is undeniable that teachers can play a significant role to help learners to develop WTC in the language classroom (Dornyei, 2007). In some previous studies, it has been recognized that teachers play a significant role as they create effective learning and communication in English classrooms. Importantly, students' learning would depend so much on teachers' teaching (Wen & Clement, 2003, cited in Gol et al., 2014). One of the most challenging language teachers' roles is how to make learners communicate. Concerning the characteristics of Asian students, it has frequently been reported that they are passive and shy, and they are not willing to answer questions in the EFL classroom (Cheng, 2000; Liu, 2005; Tsui, 1996;). From previous studies, many researchers mentioned that learners' WTC is influenced by teachers by addressing factors such as learners' self-confidence and anxiety or by choosing topics of learners' interests (Cheng, 2000; Tsui, 1996; Xie, 2011).

The earlier studies suggested that the essential components of the language learning process such as interlocutor interaction and pattern of interaction: teacher-fronted situation, dyad, small group, topic, and type of task can affect learners' WTC (Cao & Philp, 2006). According to Cao's (2011) study, the students expressed that they are likely to be willing to interact more when they like their teachers. This is consistent with Zarrinabadi's (2014) study which found that when the teachers encourage and support them to talk, for instance, by giving students sufficient time to think before answering questions; or allowing students to choose topics of discussion that are interesting for them, students tend to be more active when they use a foreign language in their classroom.

Some researchers have done empirical studies in this field by employing various methods to investigate what factors influence students' second language learning. They found some factors affecting students' WTC in different contexts. For example, in the Korean EFL context, qualitative research was conducted by Kang (2005), who collected the data by utilizing interviews, stimulated recall, and videotaped conversations with four Korean students who attended a conversation partner program in the USA. In conclusion, she postulated that the situational emergence of L2 WTC can be counted as an interactive effect of three psychological situations, which were responsibility and security, excitement, and also three situational variables, which were topics, interlocutors, and conversational contexts. Additionally, she found an association between speaking in an L2 and feeling safe from anxiety.

In connection with the interlocutor issues, it also appears in the results of Cao & Philp's study (2006) which found that learner's WTC was influenced by the familiarity with interlocutors, interlocutors' participation, and group size. Later, Cao (2009) also asserted the factors which can

influence students' WTC in classrooms, including topic, task type, interlocutor, and teacher. More specifically, task types, Peng(2014) asserted that L2 students' degree of WTC could be noticeably affected by task types. This is consistent with Pattapong(2010) who maintained that the nature of the task, level of difficulty, and the time allowed for completing the task can influence L2 students' WTC.

In recent studies, some studies were conducted in the Eastern context in relation to students' WTC and online learning. For instance, Weda, Atmowardoyo, Rahman, Said, and Sakti (2021) attempted to investigate what factors influenced students' willingness to communicate in online learning during the Covid-19 pandemic in higher education in Indonesia. 71 students participated and responded to the questionnaire. They found that most students liked to participate in group discussions, and they prefer online class discussions rather than offline class discussions. This finding was still in line with the aforementioned definition of WTC that MacIntyre, Clément, Dornyei, and Noels (1998) stated, which meant that they were ready to communicate in online classrooms. In terms of nervousness, they mentioned that students could express their feelings and other opinions in online classes without feeling nervous.

Due to the paucity of research in the Eastern context, this study, therefore, aims to explore the level of Thai EFL undergraduate students' willingness to communicate in English language online classrooms.

Methods

Participants

This study employed an exploratory sequential mixed methods research design which comprised two phases. In the qualitative phase, the participants in this step were six Thai first-year EFL undergraduate students of a state university in Thailand who enrolled in a foundation English online course and have been taught by Thai teachers in the academic year of 1/2020. Purposive sampling was employed for sample selection.

In the quantitative phase, the participants were 1,119 Thai EFL first-year undergraduate students. The participants came from different faculties and they had mixed abilities according to their admission scores. All foundation English classes were assigned to teach 100% online via online platforms according to the pandemic crisis.

Research Instruments

Focus Group Interview

A Focus group interview was employed in this study to elicit the rich data and was the primary data source that reflects the participants' perceptions of their willingness to communicate in online classrooms and create a better understanding of what exactly happened in online classrooms.

Willingness to Communicate Questionnaire

After having all qualitative data analyzed, the questionnaire was gathered, created, and adapted from the Willingness to Talk in Class Scale (Menzel & Carrell, 1999). This scale was previously utilized within traditional classrooms and used to be conducted on non-Thai participants. In this study, this scale was adapted and added more items related to the results from

focus group interviews in the Thai EFL context. However, some mismatched items from the scale were considered to be omitted from the current questionnaires according to the current online learning situation.

Then, the experts were asked to validate all items in the questionnaire by rating means of IOC (Index of item objective congruence). Items on research instruments scored greater than .50 and were consistent with expert judge validity. To avoid any misinterpretation due to the lack of English proficiency of the participants, all research instruments were translated into Thai. The pilot study was conducted by distributing it to 53 students via Google Form to ensure that the questionnaire is reliable.

Research Procedures

An exploratory sequential mixed methods research design was employed in this study. The researcher utilized a focus group interview via an online platform to collect rich data from the students in the first step and then used the findings from the qualitative phase to develop a questionnaire to measure the level of students' willingness to communicate in online classrooms.

First of all, six students from two sections were purposely selected to participate in the focus-group interview session. They were all freshmen and studied Foundation English courses online. The interviews were taken approximately between 20-30 minutes and all were recorded and transcribed. Accordingly, the participants can be ensured that their identity would be kept anonymous and confidential by using a pseudonym in the process of the research. Sample interview questions mapped to the research question based on the Willingness to Talk in Class Scale (Menzel & Carrell, 1999).

After the results from the focus group interviews were collected, transcribed, and analyzed by using thematic analysis. Then, the data was developed and made compatible with teaching and learning situations in online classrooms. The next phase started with forming the questionnaire which was developed based on the rich data elicited from the interviews and adapted from the Willingness to Talk in Class Scale (Menzel & Carrell, 1999). When the first semester ended, 49-items of the questionnaire were distributed to the participants via the online Google Form with their teacher's permission. When receiving all 1,119 responses from the participants, the obtained data were collected, calculated, and analyzed by using Statistical Package for the Social Sciences (SPSS) program. Means and standard deviations were calculated.

Results

Results from Focus Group Interview with Students

The qualitative findings were transcribed and analyzed by employing thematic analysis to develop the questionnaire for answering the research question. The themes emerged and are described below.

Communication Channels (Camera turning on/off)

Concerning communication channels, the issues of turning on and turning off their camera while learning online emerged and influenced their willingness to communicate. The results from students' interviews below showed the reasons why they preferred to turn off their cameras during studying online.

Nid: I feel nervous when I turn on the camera. I feel safer when I turn off the camera. That's why the students choose to turn off the camera. This is my privacy. Moreover, one of the students who usually turned on her camera also gave her opinion about how her willingness to communicate related to turning on/off her camera while studying.

Pim: It doesn't relate to each other because even when I turn off my camera, I still pay a lot of attention to what the teacher said and always jot down the note myself.

Communication Channels (The stability of the internet network)

From the student's interview, the stability of the internet network also affects the student's WTC. The researcher also found out that some students could not continue their studies because of the instability of the electricity system at home. An example is Som who stated:

Som: I prefer studying in the face-to-face classroom because we are sometimes in trouble with unstable internet networks so it is quite difficult for us to share screens and work as a group with friends. For this reason, it made us finish our work quite late. However, it is good for us to stay home and study online. I am willing to speak when the teacher gives us a chance to speak but my problem is the bad internet network which makes it hard to communicate while studying online. When the teacher asks a question, I will be ready to answer.

Peer Influence

The influence of peers also became one of the important factors that affected participants' WTC. The participants preferred to communicate with their teachers and friends openly without any pressure as can be seen from the following opinions:

Vera: Peer pressure is another factor that makes me feel embarrassed because I feel that I am an outstanding person when the teacher calls out my name and my teacher and friends will focus on what I said in the class.

The power of peer pressure still appeared in many dimensions especially, when one of their friends became the center of attention while he/she was talking. Pim also emphasized that she was willing to talk more if her peers would not make her feel embarrassed.

Pim: Sometimes I cannot remember the English vocabulary as I don't know what it is called. I am also afraid of peer pressure because when I speak English in the classroom, my friends sometimes make fun of me and that makes me embarrassed.

Teachers' Characteristics (Generation gap between teachers and students)

These responses emerged from students' interviews. Vera and Nid who took part in the study, expressed their different attitudes toward the relationships between students' WTC and their teachers regarding the generation gap between them as follows:

Vera: The way the teacher speaks a word will encourage the students to talk in English and make the students willing to talk. If the teacher looks younger, it will create a better understanding between us. In my point of view, it helps reduce the pressure and distance

between teachers and students so I think teachers' personality also plays an important role in encouraging students to learn.

In Vera's opinion mentioned above, she had a positive attitude toward the teacher who looks young, whereas Nid argued that she had a positive attitude towards the teacher who looks older as stated below.

Nid: Learning with the older teacher makes me feel comfortable to learn with because I feel like she is a mother. Sometimes she tells her own story from her own experiences and makes me feel familiar with her and easy to approach. The teacher is very helpful and gives us support when we cannot get the correct answer and she will make a correction for us when we use grammar incorrectly.

Teachers' Characteristics (Personality)

According to participants' responses, teachers' personality also plays an important role to increase students' WTC. This is supported by these participants' interviews.

Som: The teacher often tells some funny story as he is a funny guy and speaks English with simple words which are easy to understand and often share his experience in his life.

Tan: The teacher is very helpful, easy-going and takes good care of his students. He likes to make conversation with his students quite often.

Teachers' Characteristics (Relating to teacher's nationality)

According to the teacher's nationality, one of the participant's responses demonstrated that studying English with a native English-speaking teacher was her preference as suggested below.

Pim: From my experience, I often speak English with native English speakers because they always persuade us to talk so we can have a chance to practice speaking English all the time. Whereas Thai teacher hardly persuades us to speak English that much, But he usually focuses on teaching English grammar and following the coursebook. If the teacher gives us a chance to speak, then I will speak English.

Results from Questionnaire

After distributing the questionnaire, the total number of 1,119 responses the questionnaire was sent back to the researcher. Of the participants, 70.51% were female and 29.49% were male. After administering the questionnaires, the obtained data were collected, calculated, and analyzed using Statistical Package for Social Sciences (SPSS). To answer a research question, means and standard deviations were calculated for six categories which were communication channels, students' beliefs, peer influence, teachers' characteristics, teaching methods, and general online classroom atmosphere.

Research question: What are the levels of Thai EFL undergraduate students' willingness to communicate in English language online classrooms?

Table 1. *Descriptive statistics of students' willingness to communicate regarding communication channel*

Items	Students' Willingness to Communicate	\bar{X}	SD.
	Communication Channels		

1	I am willing to communicate when I turn on my camera while learning online.	3.02	1.12
2	I am willing to communicate when I turn off my camera while learning online.	4.13	0.95
3	I am willing to communicate when I can see the whole face of my teacher as it makes me understand better.	4.11	0.89
4	I am willing to communicate when the internet network is stable.	4.25	0.83
5	I am willing to communicate when I can type a message via chat box for communicating with my classmates and my teachers.	4.29	0.83

As illustrated in Table one, it showed a descriptive analysis of the levels of Thai EFL undergraduate students' WTC in English language online classrooms related to communication channels. It can be seen that the participants were willing to communicate when they had a chance to communicate with the class by typing a message into the chat box at a very high level as shown in item 5 (mean = 4.29, SD = 0.83). Followed by item 4 (mean = 4.25, SD = 0.83), the participants had a very high level of willingness to communicate when they found the stability of the internet network, so which made them feel comfortable communicating easily with the classroom. Whereas, turning on my camera while learning online in item 1 (mean = 3.02, SD = 1.12) had the least effect on students' willingness to communicate as the rate appeared at a moderate level.

Table 2. *Descriptive statistics of students' willingness to communicate regarding students' beliefs*

Items	Students' Willingness to Communicate	\bar{X}	SD.
	Students' Beliefs		
6	I am willing to communicate when I know that I am not going to lose face when I give the wrong answer.	3.24	1.05
7	I am willing to communicate when I feel comfortable talking.	4.15	0.93
8	I am willing to communicate when I feel that I will not be judged by the teacher.	4.12	0.92
9	I am willing to communicate because I respect the teacher.	4.39	0.79
10	I am willing to communicate because my parents taught me to make eye contact with the teacher.	3.33	1.08
11	I am willing to communicate when I have confidence in my English skills.	2.94	1.06
12	I am willing to communicate when I don't feel that I am the center of attention.	3.74	1.08
13	I am willing to communicate because I have always got a very good grade.	2.89	1.04
14	I am willing to communicate when my views differ from other students' views.	3.18	0.99
15	I am willing to communicate when I am prepared for class.	3.87	0.93

16	I am willing to communicate when I am comfortable with the subject matter.	4.03	0.88
17	I am willing to communicate when my views differ from the teacher's views.	3.27	1.01
18	I am willing to communicate when I know the correct answer.	4.30	0.83
19	I am willing to communicate when I can really help clarify the discussion.	3.65	0.96
20	I am willing to communicate when I am angry about a topic.	3.01	1.02

Regarding students' beliefs, the majority of the participants were willing to communicate when they respect the teacher at a very high level as shown in item nine (mean = 4.39, SD= 0.79). Results indicated that an increase in the level of students' willingness to communicate was shown when they respect the teacher in connection with the Thai cultural context. Moreover, a very high level of willingness to communicate was also shown in item 18 (mean = 4.30, SD = 0.83). It showed that an increase in the level of students' willingness to communicate happened when students knew the correct answer.

Table 3. *Descriptive statistics of students' willingness to communicate regarding peer influence*

Items	Students' Willingness to Communicate	\bar{X}	SD.
	Peer Influence		
21	I am willing to communicate when my friends will not put pressure on me.	4.13	0.97
22	I am willing to communicate when my friends won't feel that I am showing off my English skill.	3.94	1.02
23	I am willing to communicate when my friends won't make fun of me.	4.15	0.97
24	I am willing to communicate when my friends persuade me to talk.	4.25	0.88
25	I am willing to communicate when everyone is talking.	3.93	1.07
26	I am willing to communicate when the class is engaged in a heated debate.	3.15	1.11
27	I am willing to communicate when my views differ from my classmates' views.	3.22	0.98
28	I am willing to communicate when I dislike my classmates who are speaking.	2.18	1.24

Concerning peer influence, the participants had a very high level of willingness to communicate when their friends persuade them to talk (mean= 4.25, S = 0.88) as they rated in item 24. On the other hand, item 28 was rated as low (mean = 2.18, SD = 1.24), which showed that even though they like or dislike their classmates who are speaking, it might not affect their WTC that much.

Table 4. *Descriptive statistics of students' willingness to communicate regarding teachers' characteristics*

Items	Students' Willingness to Communicate	\bar{X}	SD.
	Teachers' Characteristics		
29	I am willing to communicate when there is no generation gap between teachers and students.	3.82	1.11

30	I am willing to communicate when I like the teacher's personality/the characteristics of my teacher.	4.15	0.93
31	I am willing to communicate when the teacher simplifies the English language use when he/she talks to us.	4.21	0.91
32	I am willing to communicate when the teacher is of the same gender.	2.98	1.35
33	I am willing to communicate with a non-Thai teacher who communicates in English.	3.07	1.15
34	I am willing to communicate when the teacher is open-minded.	4.51	0.75
35	I am willing to talk when I can talk to the teacher like a friend.	4.13	0.91
36	I am willing to communicate when the teacher will not be a commander.	4.32	0.88
37	I am willing to communicate when my teacher asks for a response from the class.	3.96	0.98

Regarding the teachers' characteristics, a large number of the participants were willing to communicate when they found that their teachers were open-minded as they rated at a very high level in item 34 (mean = 4.51, SD = 0.75). Additionally, the participants had a very high level of willingness to communicate as shown in rated item 36 (mean = 4.32, SD = 0.88), which means that a great number of the students were willing to communicate when the teacher would not be a commander as it would make them feel uncomfortable while studying online. Furthermore, the participants also rated item 31 as very high (mean = 4.21, SD = 0.91). This can be clearly explained when the teacher simplifies the English language used when he/she talks to them, so it would affect the level of their willingness to communicate.

Table 5. *Descriptive statistics of students' willingness to communicate regarding teaching methods*

Items	Students' Willingness to Communicate	\bar{X}	SD.
	Teaching Methods		
38	I am willing to communicate when the teacher gives an extra score for answering a question.	3.51	1.18
39	I am willing to communicate when the teacher gives extra scores for volunteering to join the activities.	3.57	1.13
40	I am willing to communicate when my teacher won't focus too much on grammar rules including the contents in a course book.	4.24	0.87
41	I am willing to communicate when I can answer the questions in Thai(L1).	4.31	0.85
42	I am willing to communicate when the class is engaged in an open discussion.	3.94	0.95
43	I am willing to communicate when I am in a small group in class.	3.71	1.06
44	I am willing to communicate when the topic is interesting.	4.02	0.88
45	I am willing to communicate when my assignment is being discussed.	3.50	1.06

46	I am willing to communicate when the whole class is discussing a particular assignment.	3.05	1.09
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In relation to the teaching methods, the majority of the participants had a very high level of willingness to communicate as shown in item 41 (mean = 4.31, SD = 0.85). It appeared when their teachers allowed them to answer the questions in Thai (L1) or clarify their answers in Thai, they would feel more comfortable and they would be more willing to communicate in the classroom. Furthermore, the participants also rated item 40 (mean = 4.24, SD = 0.87) as very high which revealed that the majority of participants were willing to communicate at a very high level when teachers shared their own experiences or discussed something else rather than focus too much on what's going on in the coursebook. However, it can be noticeable that students had a moderate level of willingness to communicate when the whole class was discussing a particular assignment.

Table 6. *Descriptive statistics of students' willingness to communicate regarding the general online classroom atmosphere*

Items	Students' Willingness to Communicate	\bar{X}	SD.
	General Online Classroom Atmosphere		
47	I am willing to communicate when I've found that the classroom atmosphere is relaxing.	4.39	0.83
48	I am willing to communicate so that the class won't be silent.	3.51	1.11
49	I am willing to communicate when no one else is talking.	2.94	1.22

Regarding the general online classroom atmosphere, the participants had a very high level of willingness to communicate as shown in item 47 (mean = 4.39, SD = 0.83). In item 48 (mean = 3.51, SD = 1.11), the participants also had a high level of willingness to communicate because the class will not be silent. It can be implied that the level of students' willingness to communicate was likely to increase when the students happened to be active, lively and supported each other. If their teachers encourage them to communicate, the class will not be silent. Then, their willingness to communicate can be increased.

Discussion

The present study aims at exploring the level of Thai EFL undergraduate students' willingness to communicate in English language online classrooms. The results showed that the level of students' willingness to communicate was highly influenced by the factors which included communication channels, students' beliefs, peer influence, teachers' characteristics, teaching methods, and online classroom atmosphere. Concerning the communication channel, the students had the highest level of WTC when they had a chance to communicate with the class by typing a message into the chat box. It can be assumed that it would be convenient and relate to face-saving concerns in the classroom (Hofstede, 2001). They might not feel comfortable enough to communicate with the class by talking individually in front of a large group of students. This is in tune with Toth(2010), who posited that one of the most studied topics, relating to communication is the tendency of some people to avoid communicating orally. In parallel, Kupczynski et al. (2008) postulated that an asynchronous environment affected students' participation as they would

participate more in that kind of environment because it is high time to post, read, and respond to messages, or even reflect on responses. In relation to Thai culture, shyness is part of Thai cultural identity as mentioned in the study of Chaidaroon(2004) so students might try to avoid communicating with their cameras turned on because they are likely to conceal their feelings and prefer keeping silent. Due to Thai cultural background, students are quite familiar with the teacher-centered approach which relates to authoritarian structure as Hofstede et al. (2005) proposed. They described that all work is led by a senior who is respected by younger members. As a result, they might feel considerate and prefer to receive knowledge passively and let teachers lead the class. Therefore, communicating via chat box would be another good option.

Concerning the internet network, the students also had a very high level of WTC when the internet network was stable. The result of this study indicated that the stability of the internet network affects their levels of willingness to communicate in an online classroom. In the age of online teaching and learning, the internet network has been regarded as a helpful and essential tool to engage students' WTC and interests. To support this, in Ogedebe's(2012) study, he mentioned that 79% of the respondents in his study accepted that their academic performance has been improved by using the internet. Accordingly, Fabito et al.(2021) who conducted their study in the Philippines also found that a good internet connection was considered to be one of the barriers and challenges that students had to inevitably encounter while learning online. This can be counted as an area of concern when students have to struggle to keep up with the new normal educational system. However, it is worth noticing that turning on their cameras while learning online probably did not affect the students' willingness to communicate that much as they rated it as moderate level. It can be assumed that the level of students' WTC did not depend on whether they turned on the camera or not.

In respect of students' beliefs, it can be seen from the findings that the highest level of WTC was related to the Thai cultural context which indicated that when they respected their teachers, their level of WTC would be increased. According to Hofstede et al.(2005) in the previous study, they suggested that culture determines human decisions, actions, and behaviors. Therefore, Thai culture may influence Thai students' belief on how Thai students respect their teachers and it would affect their level of WTC. This is similar to the concept of Confucianism and collectivism that influences strongly the Taiwanese context as mentioned in the study of Hofstede (2001) and Skow and Stephan (2000). The hierarchical relationship between teacher and students that lie within Confucianism embraces the higher status of teachers so students should respect their teachers due to Chinese traditional cultural values that widely impact Chinese society. In another aspect, a very high level of students' WTC can be increased when they know the correct answer. This finding concurred with the notion supported by Tsui (1996) who stated that the common causes of reticence in the class occurred when students lacked confidence, had a fear of making mistakes, and was laughed at. Students are likely to keep silent as he/ she thinks they are going to give the wrong answer to the class which might make them feel embarrassed especially when they find that their peers make fun of what answer they gave to the class.

Regarding peer influence, as demonstrated in this study, the majority of students had a very high level of WTC when their peers persuade them to talk. It would be better if their peers would cheer them up and encourage them to talk without fear of losing face. Therefore, fear of losing face

can play a significant role, especially, in relation to Thai cultural background and this may lead to students' reticence and unwillingness to communicate in the online classroom. This is also consistent with what Hamouda (2012) highlighted that Asian learners are often characterized as passive and silent in the English language classroom. However, it can be argued that the students' negative attitude toward their peers would probably not influence students' willingness to communicate that much as illustrated when they rated this item as low.

In accordance with the teachers' characteristics, the majority of the participants were willing to communicate when they found that their teachers were open-minded and this might reduce the gap between them. This finding is in line with the study of Cao (2011) and Zarrinabadi (2014). In Cao's (2011) study, the students indicated that they are likely to be willing to interact more when they like their teachers. This is consistent with Zarrinabadi's (2014) study which found that when the teachers encourage and support them to talk, for instance, by giving students sufficient time to think before answering questions; or allowing students to choose topics of discussion that are interesting to them, students tend to be more active using their foreign language in their classroom. In connection with teaching in an online classroom, it can be concluded that teachers' characters play a significant role and can be shone through the computer screen when he/she talks or communicates with their students throughout the semester.

Based on the findings, a very high level of students' willingness to communicate can be found when the teacher would not be a commander. It can be noticed that students were willing to communicate when the teacher would not act like a commander. The role of teachers in the digital era in their mind might be a facilitator or mentor rather than a commander who is likely to order and expect students to show obedience to the teacher. Although Thai culture can be described as having an authoritarian structure (Hofstede & Hofstede, 2005) as all work is led by a senior who is respected by younger members, teachers still need to listen and support them, help them learn better, create a good classroom environment, and enhance students' willingness to communicate. This result corresponds to the notion of Saetang(2014) in her study, she mentioned that low self-confidence and shyness could result from teachers' characteristics such as authoritarian power and emotional value which could lead to students' unwillingness to participate in class.

Results also showed that the students had a very high level of students' willingness to communicate when the teacher simplified the English language used when he/she talked to them. Due to students' language proficiency, students who have lower English proficiency than others may feel embarrassed when they make some mistakes in front of their peers. There was some crucial evidence from previous studies which showed that students with low proficiency caused students unwillingness to speak (Liu, 2005a; Liu, 2005b; Liu & Jackson, 2009). When the teacher simplifies the English language used when he/she talks to students, it would help them a lot, especially when they do not understand what teachers speak by using some complicated words. This can be conducive to the fact that the level of students' willingness to communicate can be increased when the teacher simplifies the English language used while teaching.

Concerning the teaching methods, the result showed the highest level of students' willingness to communicate that the majority of students had when their teachers allowed them to answer the questions in the first language (L1) or clarify their answers in Thai, this caused low

proficiency students felt more comfortable and they would be more willing to communicate by using the Thai language in the classroom because teachers were kind enough to listen to what they tried to answer using their mother tongue. Some students may feel frustrated with communicating in English and it will lead to miscommunication, boredom, and the feeling of unwillingness to participate in class. Regarding using L1 to communicate with students in the classroom, the result was similar to the previous studies conducted in a face-to-face classroom (Sung, 2010; Chun, 2014). It demonstrated that grammar explanation should be carried out by non-native English speaking teachers (NNESTs) who can use L1 to communicate with their students to make it easier for students to understand grammar points clearly. When they do not understand what teachers teach, it can be easier for them to ask their teachers by using L1 to communicate in the classroom. This finding concurred with what MacIntyre et al. (1998) suggested that the participants' willingness to communicate has been influenced by the level of proficiency in the target language.

Moreover, the findings also revealed that the majority of participants had a very high level of willingness to communicate when teachers would not focus too much on grammar rules including the contents in a coursebook. They were more willing to communicate when teachers shared their own experiences or discussed something else rather than focus too much on what was going on in the coursebook. This finding is similar to the result of Saetang's (2014) study which asserted that relaxing activities like talking about interesting and encouraging things apart from the course content would be students' preferences.

Regarding the general online classroom atmosphere, a relaxing online classroom atmosphere affects the level of students' willingness to communicate as it appeared that students had a very high level of students' willingness to communicate. Based on the results, it was in tune with the works of Pattapong (2010) and Peng(2014) who pointed out that students' willingness to communicate in second language classrooms can be promoted by a friendly classroom atmosphere, while a boring and silent atmosphere demotivated second language students' WTC. To sum up, one of the important factors which increased the level of students' willingness to communicate both in face-to-face and online classrooms is a relaxing classroom atmosphere.

Conclusion

Unlike the previous studies which have been conducted in a face-to-face classroom, this present study focused mainly on exploring the level of students' willingness to communicate in online classrooms which has not been previously explored. The results suggested that Thai EFL undergraduate students were willing to communicate more when they found the stability of the internet network and they could have more freedom and chances to communicate with the class via different communication channels such as chat boxes to feel less of a threat of losing face. After the pandemic crisis, teachers and students would have to confront new ways of teaching. They would have a hard time struggling with social distancing and it is considered harder to make students feel closer to the teachers. The only way they meet each other would be through electronic devices so it is quite hard to manage as well as create an appropriate classroom atmosphere for most teachers. In addition, the results also suggest that teachers should be open-minded and not act as a commander to motivate them to be more willing to communicate. Importantly, teachers should simplify their English language use when they find that some students are struggling with difficult words. In terms of peer influence, teachers should well-manage their classes when having

some students make fun of their friends while talking in English as it might reduce students' WTC. Hopefully, this current research could strengthen the significance of students' willingness to communicate in online classrooms, and it can create teachers' awareness through the lens of students' worldviews.

Recommendation for Further Studies

The recommendations for further studies should be continued to investigate students' willingness to communicate in an online classroom by employing larger sample sizes in different universities in Thailand. In terms of the qualitative approach, further study should be conducted by interviewing and observing a larger number of teachers and students to explore more what other factors can influence students' willingness to communicate in an online classroom to maximize students' learning outcomes in the future.

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References

- Berge, Z.L. (1997). Characteristics of online teaching in post-secondary, formal education. *Educational Technology*, 37(3), 35-47.
- Burgoon, J. K. (1976). The Unwillingness-To-Communicate Scale: Development and Validation. *Communication Monographs*, 43(1), 60-69.
- Carrell, L. J., & Menzel, K. E. (1999). The impact of gender and immediacy on willingness to talk and perceived learning. *Communication Education*, 48(1), 31-40.
- Cao, Y., & J. Philp (2006). Interactional context and willingness to communicate: a comparison of behavior in the whole class, group, and dyadic interaction. *System* 34. 480–93.
- Cao, Y. (2009). An ecological view of situational willingness to communicate in a second language classroom. In H. Chen & K. Cruickshank (Eds.), *Making a difference: Challenges for applied linguistics* (pp. 199–218). Newcastle-upon-Tyne, England: Cambridge Scholars Press.
- Cao, Y. (2011). Investigating situational willingness to communicate within second language classrooms from an ecological perspective. *System*, 39, 468–479. doi:10.1016/j.system.2011.10.016
- Cheng, X. (2000). Asian students' reticence revisited. *System*, 28(3), 435–446.
- Chaidaroon, S, S (2004) Effective communication management for Thai people, *Proceeding of the Global Era international conference on Revising Globalization and Communication in the 2000s*. Bangkok, Thailand
- Chun, S.Y. (2014). EFL learners' beliefs about native and non-native English – speaking teachers: perceived strengths, weaknesses, and preferences, *Journal of Multilingual and Multicultural Development*, 35:6, 563-579. doi: 10.1080/01434632.2014.

- Dornyei, Z. (2007). Creating a Motivating Classroom Environment. In J. Cummins, & Ch. Davison (Eds.), *International Handbook of English Language Teaching* (pp. 719-731). New York: Springer Science-Business Media, Inc. http://dx.doi.org/10.1007/978-0-387-46301-8_47
- Fabito, B.S., Trillanes, A.O., & Sarmiento, J.R. (2021). Barriers and challenges of computing students in an online learning environment: Insights from one private university in the Philippines. *International Journal of Computing Sciences Research*, 5(1),441-458. <https://doi.org/10.2514/ijcsr.2017.001.1.51>
- Freiermuth, M., & Jarrell, D. (2006). Willingness to communicate: Can online chat help? *International Journal of Applied Linguistics*, 16(2), 189–212.10.1111/ijal.2006
- Gol, M., Zand-Moghadam, A., & Karrabi, M. (2014). The construct of willingness to communicate and its relationship with EFL learners' perceived verbal and nonverbal teacher immediacy. *Lang. Teach.* 3, 142–143.
- Harasim, L. M., & Winkelmans, T. (1990). *Computer-mediated scholarly collaboration: A case study of an international online educational research workshop*. Knowledge, 11(4), 382-409.
- Hashimoto, Y. (2002). Motivation and Willingness to Communicate as Predictors of L2 Use: The Japanese ESL context. *Second Language Studies*, 20(2), 29-70.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2005). *Cultures and organizations: Software of the mind* (Rev. 2nd ed.). New York: Mcgraw-hill.
- Hsu L.I., Watson, T., Lin, C.H., & Ho, T, C.(2007). Explorations in Teachers' Nonverbal Immediacy Behaviors and Students' Willingness to Talk in English. *English Teaching & Learning*, 31, 1-27
- Kang, S. J. (2005). Dynamic emergence of situational willingness to communicate in a second language, *System*, 33, 277 ~ 292
- Liu, M. H. (2005). Reticence in oral English language classrooms: A case study in China. *TESL Reporter*, 38(1), 1-16
- MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, 15, 3-26.
- MacIntyre, P. D., Clément, R., Dornyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in an L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal*, 82(4), 545-562.
- McCroskey, J. C., & Baer, J. E. (1985). Willingness to communicate: The construct and its measurement. *Paper presented at the Speech Communication Association convention, Denver, CO.*
- McCroskey, J. C., Fayer, J., & Richmond, V. P.(1985). Don't speak to me in English: Communication apprehension in Puerto Rico. *Communication Quarterly*, 33, 185-192.
- McCroskey, J., Richmond, V. (1990). Willingness to Communicate: Differing cultural perspectives. *Southern Communication Journal*, 56, 72-77.
- McCroskey, J. C., & Richmond, V. P. (1991). Willingness to Communicate: A Cognitive View. In M. BoothButterfield (Ed.), *Communication, Cognition, and Anxiety* (pp. 19-37), Newbury Park, CA: Sa
- Ogedebe, P.M.(2012). Internet usage and students' academic performance in Nigeria tertiary institutions: a case study of the University of Maiduguri. *Acad. Res. Int*, 2(3), 334-343. [http://www.savap.org.pk/journals/ARInt./Vol.2\(3\)/2012\(2.3-41\).pdf](http://www.savap.org.pk/journals/ARInt./Vol.2(3)/2012(2.3-41).pdf)
- Pattapong, K. (2010). *Willingness to communicate in a second language: A qualitative study of issues affecting Thai EFL learners from students' and teachers' points of view*, (Unpublished doctoral dissertation). University of Sydney, Sydney, Australia
- Peng, J. (2014). *Willingness to communicate in Chinese EFL university classroom: An ecological perspective*. Bristol: Multilingual Matters.
- Riasati, M. J.(2012). EFL Learners' Perceptions of Factors Influencing Willingness to Speak in Language Classrooms: A Qualitative Study. *World Applied Sciences Journal*, 17(10). 1287-1297.

- Saetang, S. (2014). A survey in a Thai classroom on learning activities and learning problems. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)*, 5(3), 1753-1758.
- Simonson, M. (2000). Myths and distance education: What the research says (and does not) *Quarterly Review of Distance Education*, 4(1), 277-279
- Skow, L., & Stephan, L. (2000). Intercultural communication in the university classroom. In L. Samovar & R. Porter (Eds.), *Intercultural communication: A reader* (pp.355-370). Belmont, CA: Wadsworth.
- Sung, C. C. M. (2010). Native or non-native? Exploring Hong Kong students' perspectives. *Papers from the Lancaster University Postgraduate Conference in Linguistics & Language Teaching*, 4, 243-262.
- Toth, Z. (2010). *Foreign language anxiety and the advanced language learner: A study of Hungarian students of English as a foreign language*. Cambridge Scholars Publishing.
- Tsui, A. B. M. (1996). Reticence and anxiety in second language learning. In K. M. Bailey, & D. Nunan (Eds.), *Voices from the Language Classroom* (pp.145-167). Cambridge University Press.
- Vongsila, V., & Reinders, H. (2016). Making Asian Learners Talk: Encouraging Willingness to Communicate. *RELC Journal*, 47, 331 - 347.
- Weda, S., Atmowardoyo, H., Rahman, F., Said, M. M., & Sakti, A. E. F. (2021). Factors Affecting Students' Willingness to Communicate in EFL Classroom at Higher Institution in Indonesia. *International Journal of Instruction*, 14(2), 719-734.
<https://doi.org/10.29333/iji.2021.14240>
- Wen, W. P., & Clément, R. (2003). A Chinese conceptualisation of willingness to communicate in ESL. *Language Culture and Curriculum*, 16(1), 18-38.
- Xie, Q.M. (2011). *Willingness to communicate in English among secondary school students in the rural Chinese English as a Foreign Language (EFL) classroom*. (Unpublished doctoral dissertation). AUT University, Auckland.
- Zarrinabadi, N.(2014). Communicating in a second language: investigating the effect of teacher on learners' willingness to communicate. *System*, 42, 288-95.

CONFLICT OF INTEREST STATEMENT

The author agrees that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declares the absence of conflicting interests with any funders.

EFL Students' Attitudes towards Using Online Learning during Covid-19: Applying Technology Acceptance Model

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Abstract:

This study examined the attitudes toward online learning of EFL students by applying technology acceptance model (TAM) constructs along with the characteristics of the online learning system and the experience of online learning as external independent variables. The study used a quantitative approach. The researchers collected data by administering a questionnaire using Microsoft's online form to the tertiary students who were studying for their Bachelor of Arts degree (B.A.) in the English Language and Literature Department at Al-Balqa Applied University – Jordan. . One hundred eighty-five students out of 602 responded to the questionnaire. The researchers used SPSS and Structural Equational Modeling (SEM – Smart PLS) to analyze the data. Among the findings, the characteristics of an online learning system significantly affected perceived usefulness (PU), perceived ease of use (PEOU), attitudes, and the behavioral intentions (BIs) of EFL learners. In contrast, EFL learners' PEOU negatively affected their attitudes towards online learning and BIs. Finally, the attitudes of students who studied online for four semesters or more were negative compared to those who took less than four semesters online. These findings could be attributed to the supposedly temporary and rapid shift to online learning due to Covid-19 lockdown measures. This study is significant because it develops an understanding of tertiary EFL attitudes towards online learning. It also reflects on their behavioral intentions to utilize online learning after the pandemic. The researchers believe that this is the first study to examine EFL learners' attitudes and BIs on using online learning during/after the pandemic in Jordan using TAM.

Keywords: Covid-19, EFL students' attitudes, experience in online learning, online learning system characteristics, technology acceptance model

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Introduction

The emerging health measures of coronavirus (Covid-19) have demanded adaptations in almost all aspects of life, including social and educational domains. Full and partial lockdowns worldwide have imposed restrictions on individuals and institutions. Closures of schools and universities forced the shift to online learning. In Jordan, and according to the enforcement of the Jordan National Defense Law No. 13 of 1992 (Ministry, 2021), fully online classes have started in March 2020 till the end of August 2021. Starting from the academic year 2021/2022, a hybrid education system at schools and universities took place under the government's recovery plan. The design incorporates in-person, blended, and online classes depending on the development of the measures due to the vaccination rates and the constant mutation of the virus.

Although online instructions started earlier in Jordan during the 2000s by individual institutions and scholars (Badran, 2014), most students and instructors have never experienced formal online instructions. Moodle platform is the Learning Management System (LMS) used by most Jordanian universities (Wimpenny, Adefila, & DeWinter, 2018; Al-Shboul & Alsmadi, 2014). At an earlier stage, the Ministry of Higher Education and Scientific Research tolerated a "25% cap for online content" (Wimpenny, Adefila, & DeWinter, 2018, p. 28). Following the aftermath of the pandemic, "online learning is no longer an option but a necessity" (Al-Salman & Haider, 2021, p. 296). Thus, the ministry has issued regulations for officially merging electronic instructions in higher education institutions, valid on the 30th of June 2021 (Education, 2022).

To understand how English as a Foreign Language (EFL) students received online learning to enhance its points of strength and address its challenges, the researchers applied TAM constructs and two external variables. They were the characteristics of the online learning system and experience in online learning. The Technology Acceptance Model (TAM) constructs, introduced by Davis (1989), stemmed from the Theory of Reasoned Action (TRA). TRA states that people's perceptions identify their attitudes toward an object, which determines their intentions to act accordingly, and they will finally decide on their actual behavior (Agudo-Peregrina, Hernández-García, & Pascual-Miguel, 2014). Davis regarded that the use of a particular system was a behavior that could be explained by TRA, and the user's attitudes towards that system were "a major determinant of whether the user will use or reject the system" (Granic & Marangunic, 2019, p. 2574).

As for the external variables, experience in online learning was cited as among the most commonly used external factors (Abdullah & Ward, 2016). The researchers assumed that the EFL learners' previous experience in online learning had a positive impact on their attitudes and behavioral intentions to use online learning. Researchers who used online learning experience as an external variable found that "the greater the online learning experiences of users, the stronger their intention to use an online learning community" (Liu, Chen, Sun, Wible, & Kuo, 2010, p. 608). Furthermore, the characteristics of online learning as an Information System (IS) are defined in this research by the features this system offers to assist the online user of the learning system (Hassanzadeh, Kanaani, & Elahi, 2012).

Rationale and Significance of the Study

This study attempts to understand how students perceive online learning and their attitudes towards using it after Covid-19 to help teachers and officials at the universities to improve and develop online learning to achieve the best of students' interests. This study is believed to be the first on EFL students using TAM in Jordan.

Thus, in the context of EFL online learning, it was hypothesized that:

H1: Online learning system characteristics significantly affected PU of online learning.

H2: Online learning system characteristics significantly affected PEOU of online learning.

H3: Online learning system characteristics significantly affected attitudes towards using online learning.

H4: Online learning system characteristics significantly affected the BIs of online learning.

H5: PEOU significantly affected PU of online learning.

H6: PEOU of online learning significantly affected attitudes toward using online learning.

H7: PU of online learning significantly affected attitudes towards using online learning.

H8: PU significantly affected BIs to use online learning.

H9: Attitudes towards online learning significantly affected BIs to use online learning.

H10: The positive effect of proposed determinants on attitudes and BIs was more robust for EFL students who studied online for four semesters or more than EFL students who studied less than four semesters.

For this research, besides the primary constructs of TAM, online learning system characteristics and online experience, which the researchers argue to influence the EFL learners' acceptance of using technology in an online learning setting, were used. In the following section, empirical literature concerning the constructs of the learners' acceptance of and their attitudes towards the online learning systems will be examined.

Literature Review

Technology Acceptance Model is introduced by Davis (1989) to anticipate the user's acceptance of a new technology before launching it. It suggests that the use of the new technology is predicted by the behavioral intentions of the user. It is based on two primary constructs, i.e., perceived usefulness (PU) and perceived ease of use (PEOU) of that technology. Davis (1989) defines PU as the degree to which users believe that using a particular system would enhance their performance, and PEOU as the degree to which users believe that using a specific system would be free of effort. That is to say, if the new technology is easy to use, this means it is usefully perceived, and users' attitudes and behavioral intentions are positive concerning it.

In their research, Pituch and Lee (2006) studied the effect of the online learning system characteristics on the learners' acceptance of technology. The findings revealed a strong impact of online learning system characteristics on the students' acceptance of using online learning. Previous research has also shown that online learning system characteristics have positively affected PU of online learning (Hsieh, Huang, & Wu, 2016). Moreover, in their research, Alharbi and Drew (2014) and Salloum, Alhamad, Al-Emran, Abdel Monem, & Shaalan (2019) found a positive correlation between system characteristics and PU of the online learning systems. Likewise, it had been determined that the online learning system characteristics positively affected

PEOU of online learning Salloum et al. (2019). In their research, Pituch and Lee (2006) also revealed a significant relationship between online learning system characteristics and learners' PEOU of online learning. As stated by Pituch and Lee (2006), if the online learning system positively affected PU and PEOU of online learning, it meant that this system was user-friendly. Therefore, the learners' attitudes towards online learning would be enhanced completely. Kanwal and Rehman (2017), who examined the effect of online learning system characteristics on the students' attitudes towards using online learning, reported a positive relationship between the online learning system characteristics and the students' attitudes toward using it.

Kanwal and Rehman (2017) stated a significant correlation between the online learning system characteristics and the learners' BIs to use it. Pituch and Lee (2006) pointed out that if the online learning system characteristics have positively impacted the learners' attitudes toward it, the learners would have apparent behavioral intentions to use it.

Research that examined the potential relation between PEOU and PU in the domain of online learning has shown that PEOU of online learning positively affected the learners' PU of online learning (Almarabeh, 2014; Al-Okaily, Alqudah, Matar, Lutfi, & Taamneh, 2020; Farahat, 2012; Hsieh, Huang, & Wu, 2016; Jiang et al., 2021). While previous research has shown a significant relationship between learners' PEOU of online learning and their attitudes towards using online learning (Almarabeh, 2014; Farahat, 2012; Jiang et al., 2021), learners' PEOU of using online learning in the study of Natasia, Wiranti, & Parastika, (2022) did not significantly affect the learners' attitudes towards using online learning system.

Regarding PU as a TAM construct that significantly affected the learners' attitudes towards using online learning, previous research acknowledged that PU has positively affected learners' attitudes towards using online learning systems (Almarabeh, 2014; Farahat, 2012; Jiang et al., 2021; Natasia et al., 2022). As stated in the literature, several research articles have shown that PU had a positive impact on the learners' BIs using online learning systems (Almarabeh, 2014; Farahat, 2012; Haleman & Yamat, 2021; Jiang et al., 2021; Natasia et al., 2022; Salloum et al., 2019).

Some researchers indicated that the students with positive attitudes toward online learning systems had greater BIs toward them (Almarabeh, 2014; Farahat, 2012; Haleman & Yamat, 2021; Natasia et al., 2022). On the contrary, others claimed that learners' attitudes toward online learning systems had an insignificant effect on the learners' BIs toward them because the online learning systems were the only choice they had during the lockdown in the era of covid-19 (Jiang et al., 2021; Teo, Wong, & Chai, 2008).

Experience, as one of the common external constructs used in the TAM in an online learning setting in literature, had been generally viewed as an important one to be examined for its possible effect on the learners' attitudes toward using online learning systems besides their intentions to use it. Some research articles revealed that both the learners' attitudes towards using an online learning system and their BIs to use it were positively affected to different degrees by the online learning experience (Abramson, Dawson, & Stevens, 2015; Jiang et al., 2021; Liu et al., 2010), whereas other related research revealed that online learning experience had no significant effect

on the learners' attitudes towards using online learning system and their BIs to use it (Hrtoňová, Kohout, Rohlíková, & Zounek, 2014; Mailizar, Burg, & Maulina, 2021).

The previous research showed similarities and differences in terms of the positive effect of the core constructs of the TAM and the proposed external ones in the learners' acceptance of using online learning (Almarabeh, 2014; Al-Okaily et al., 2020; Farahat, 2012; Hrtoňová et al., 2014; Hsieh, Huang, & Wu, 2016; Jiang et al., 2021; Mailizar et al., 2021). This research combined the core constructs of the TAM (PEOU and PU of using online learning), which were believed to have an effect on the learners' acceptance of technology, with the external constructs (online learning system characteristics and experience of online learning) to examine their impact on the undergraduate EFL Jordanian students' attitudes towards accepting the use of online learning. However, the researchers found that no previous research was conducted to examine the undergraduate EFL learners' attitudes towards accepting online learning systems using TAM and the two proposed external constructs (online learning system characteristics and experience of online learning) at the national and local levels.

Methods

This is quantitative research. The researchers used an online Likert-scale questionnaire targeting FEL students. The study investigated the factors that predict EFL students' attitudes toward using online learning during covid-19 by applying TAM constructs to design the questionnaire. The questionnaire items were adopted from the previous literature (see Table one). It contained six sections (demographic information, PU, PEOU, BIs, attitudes, and characteristics of online learning systems). Participants were asked to choose their answers for the demographic part. Five-point Likert scale was used in sections two to six (strongly disagree, disagree, neutral, agree, and strongly agree). The ethical considerations were met despite the low-risk nature of the research. They included voluntary participation, anonymity, and confidentiality.

Table 1. *Sources of the questionnaire*

Sections of the Questionnaire	Source
Perceived usefulness of online learning	(Mohammadi, 2015)
Perceived ease of use of online learning	(Mohammadi, 2015)
Intentions to use online learning	(Mohammadi, 2015)
Attitudes towards using online learning.	(Salloum, Alhamad, Al-Emran, Abdel Monem, & Shaalan, 2019)
*Online learning system characteristics	(Pituch & Lee, 2006)

*Online learning" is used instead of "web-based learning" for consistency

Preliminary data computation was conducted using SPSS 26 (Pallant, 2020). Meanwhile, the measurement model and structural model were assessed using Smart PLS 3.3. Smart PLS is a Structural Equation Modeling (SEM) method that has received much significance in recent decades, and its popularity has grown for testing concepts and theories. The success of SEM is justified by its ability to evaluate measurement models that include latent variables and, at the same time, test relationships among the latent variables (Babin et al., 2008; Hair, Hult, Ringle, & Sarstedt, 2021), making this approach helpful for this study.

Research Procedures

The distribution of the online questionnaire was done through Microsoft Forms. The questionnaire link was sent to the targeted students with a cover letter explaining the study's goals and instructions to fill out the questionnaire. Several reminders were sent to students to increase the responding ratio. After two months (November and December 2021), data collection was stopped as no more responses were received, and the sampling approach was based on simple random methods. The targeted population comprised 602 EFL students who are studying for their B.A. degree in the English Language and Literature Department at Al-Balqa Applied University, making the required sample 234. The sample size was determined by statistical tables proposed by (Bougie & Sekaran, 2019) for the sample size needed at a confidence of 95% and a 5.0% margin of error.

Further, as this study used the SEM approach for statistical analysis, SEM-AMOS was not seen as suitable for this study because the goodness of fit indices in AMOS is sensitive to sample size. Fitness indices in AMOS require using a ratio of 1:10 per parameter (Bentler & Chou, 1987). Since the instrument has 25 parameters, this requires a sample comprising 250 responses. However, the exact sample size in this study included 177 responses. Therefore, Smart PLS was seen as more suitable since Smart PLS discards data distribution assumptions, and it is ideal for small samples (Hair et al., 2021). In total, 187 complete responses were received. However, ten responses were dropped due to patterns in assessments. The exact sample size that was deemed for further analysis comprised 177 answers.

Findings

Socio-demographics of Students

Counts and percentages were gathered for the socio-demographics of students. Out of 177, $n=155$ (87.6%) were females, and $n=22$ (12.4%) were males, showing that most of surveyed FEL students were females. Further, more than half of students $n=104$ (58.8%), completed less than four online semesters. Meanwhile, $n=73$ (41.2%) completed four or more online semesters. Concerning the level of study, the sample comprised students from all levels as follows: $n=52$ (29.4%) in the first year, $n=42$ (23.7%) in the second year, $n=35$ (19.8%) in the third year, and $n=48$ (27.1%) in the fourth year or more. Finally, the majority of the sample, $n=171$ (96.6%), used Moodle and Microsoft Teams, and $n=6$ (3.4%) used other online learning systems. See Table two.

Table 2. *Socio-demographics of students (n= 177)*

Demographic	Subset	Count	%
Gender	Male	22	12.4%
	Female	155	87.6%
	<i>Total</i>	<i>177</i>	<i>100%</i>
No. of online semesters	Less than four	104	58.8%
	Four or more	73	41.2%
	<i>Total</i>	<i>177</i>	<i>100%</i>
Level of the study	First-year	52	29.4%
	Second-year	42	23.7%
	Third-year	35	19.8%
	Fourth-year or more	48	27.1%
	<i>Total</i>	<i>177</i>	<i>100%</i>

Online learning system	Moodle and Microsoft Teams	171	96.6%
	Other	6	3.4%
	<i>Total</i>	<i>177</i>	<i>100%</i>

Descriptive Statistics

Table three gathered mean and std. values for our proposed factors. FEL students perceived that the online learning system had moderate levels of usefulness (Mean= 3.40), ease of use (Mean= 3.59), and moderate levels of attitudes toward the online learning system (Mean= 3.04), along with a moderate level of BIs toward the future use of the system (Mean= 3.39). Meanwhile, students reported a high level (Mean= 3.73) of online learning system characteristics showing that it had a high level of favorable characteristics. Besides, all responses were seen spanning around its mean values as neither of std. values were greater than (1) except for attitudes. Std. value for attitudes scored (1.06), showing non-homogeneity among respondents.

Table 3. Descriptive statistics (n= 177)

Factor	Mean	Level	Std.	Minimum	Maximum
Perceived usefulness	3.40	Moderate	0.75	1.33	5.00
Perceived ease of use	3.59	Moderate	0.81	1.00	5.00
Behavioral Intentions	3.39	Moderate	0.94	1.00	5.00
Attitudes	3.04	Moderate	1.06	1.00	5.00
Online learning system characteristics	3.73	High	0.74	1.00	5.00

This could be explained by varying agreement levels among respondents. Gathered findings demonstrated that online learning systems were still not fully effective in providing students with valuable capabilities and ease of use.

Measurement Model Testing

Various procedures were utilized to test measures validity as well as reliability. The measurement model was evaluated using the PLS algorithm and Factor Loading (FL) for all parameters scored values exceeding the minimum recommended level (0.70), except for two parameters in PU (U1, U2). Accordingly, they were dropped from the model. As a result, all retained parameters have FL > (0.70).

Retained parameters have remained for the next step in PLS analysis. Statistical consistency across parameters was evaluated based on internal consistency. For this purpose, Composite Reliability [CR] and Cronbach alpha were reported. Through the threshold set by Hair et al. (2021), which is (0.70), both CR and Cronbach alpha were evaluated. Findings illustrated in Table four reported that FL for all retained parameters were found to be greater than (0.70). Furthermore, Cronbach alpha and CR values were also found to be greater than (0.70), showing that all measures

have satisfactory internal consistency. Cronbach alpha values were found as follows: PU (0.819), PEOU (0.840), Behavioral Intentions (0.795), Attitudes (0.915), and Online Learning System Characteristics (0.880). Meanwhile, CR values were found as follows: PU (0.880), PEOU (0.887), Behavioral Intentions (0.878), Attitudes (0.940), and Online Learning System Characteristics (0.909).

Table 4. *FL, internal consistency, and convergent validity for revised measures (N= 177)*

Measure	Parameter	AVE	Cronbach α	CR	FL	T
Perceived usefulness	U3	0.649	0.819	0.880	0.749	17.064
	U4				0.773	19.870
	U5				0.854	38.702
	U6				0.841	32.792
Perceived ease of use	E1	0.610	0.840	0.887	0.762	18.724
	E2				0.804	19.932
	E3				0.803	21.866
	E4				0.815	32.371
	E5				0.719	14.485
Behavioral intentions	INT1	0.708	0.795	0.878	0.716	11.971
	INT2				0.887	52.313
	IN3				0.907	79.913
Attitudes	A1	0.798	0.915	0.940	0.926	88.983
	A2				0.907	59.933
	A3				0.816	27.191
	A4				0.920	57.170
Online learning system characteristics	C1	0.626	0.880	0.909	0.716	18.312
	C2				0.776	21.883
	C3				0.840	23.788
	C4				0.789	19.648
	C5				0.812	20.126
	C6				0.807	28.992

Regarding convergent validity, Average Variance Extracted (AVE) was reported. The AVE values were greater than (0.50), showing that all measures explain more than 50% of the variance (Hair et al., 2021). AVE values were found as follows: PU (0.649), PEOU (0.610), Behavioral Intentions (0.708), Attitudes (0.798) and Online learning System Characteristics (0.626). Finally, the gathered results in Table five addressed discriminant validity using Fornell and Larcker's (1981) criterion.

Table 5. *Discriminant validity through Fornell & Larcker criterion (n= 177)*

Factor	1	2	3	4	5
Attitudes	0.893				
Perceived ease of use	0.642	0.781			
Behavioral intentions	0.777	0.705	0.841		
Online learning system characteristics	0.607	0.679	0.655	0.791	
Perceived usefulness	0.794	0.667	0.738	0.587	0.805

- Square root for AVE is in diagonal

Indeed, the square root for each measure's AVE value was lower than the measures shared correlation with other measures, showing that the discriminant validity was established.

Structural Model Testing

A structural model was used to test the proposed hypotheses by gathering path estimates. As a start, collinearity was examined by reporting Variance Inflation Factor (VIF) values. Collinearity issues exist whenever the VIF values exceed 3.00 (Hair et al., 2021). None of VIF values exceed 3.00, showing that this issue does not emerge in this study. VIF values were found: 2.330, 1.972, 1.911, 1.000, 2.951, 1.658, 2.840 and 1.855.

Coefficient of determination (R^2) values were gathered from regression output. The model scored a moderate level of R^2 values showing a sufficient proportion of variance which is explained by the proposed factors. Determination Coefficient (R^2) values were as follows: PU (47.7%), PEOU (46.1%), BIs (68.3%), and Attitudes (66.7%). Further, the predictive relevance of the model Q^2 demonstrated that the model has moderate to large predictive relevance as Q^2 values exceeded the 0.15 level (Hair et al., 2021). Q^2 values were as follows: PU (0.301), PEOU (0.269), Behavioral Intentions (0.458), and Attitudes (0.526). After assessing the structural model quality, path estimates were gathered to provide a decision for our hypotheses. Path estimates gathered beta coefficients to determine the amount of change along with P values using bootstrapping through 5000 sub-samples. Path analysis is displayed in Figure one.

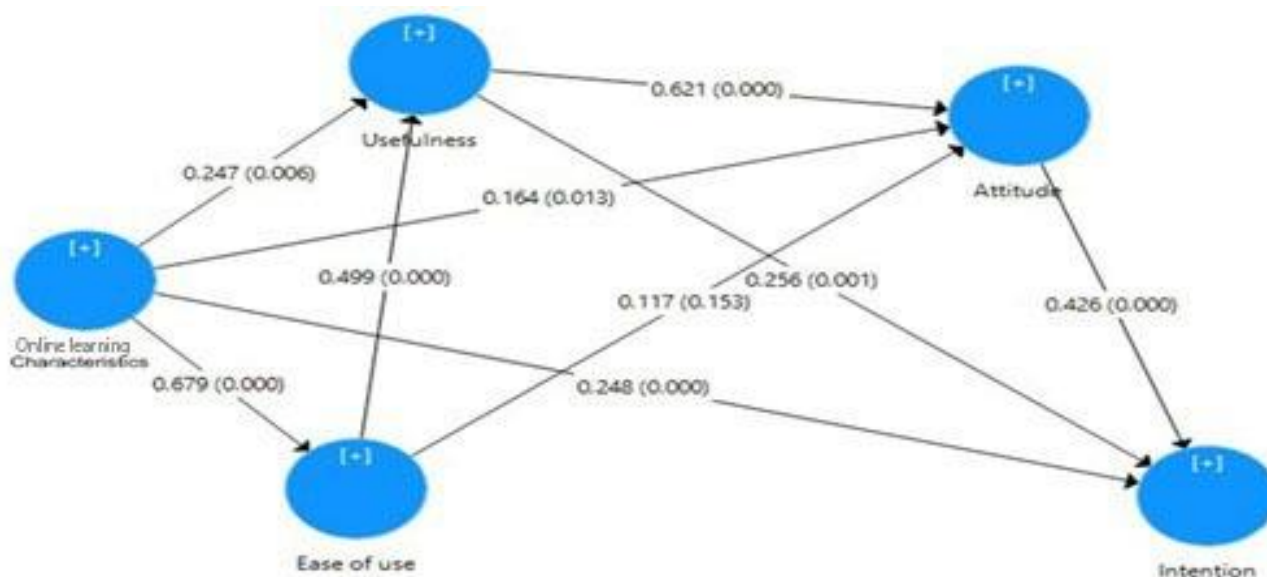


Figure 1. Path analysis for structural model

H1: Online learning system characteristics significantly affected PU of online learning. Path estimates for this hypothesis were ($\beta = 0.247$, $t = 2.727$, $P = 0.006$) showing a positive effect supporting H1.

H2: Online learning system characteristics positively affected PEOU of online learning. Path estimates were ($\beta = 0.679$, $t = 14.104$, $P = 0.000$) reporting a significant effect supporting H2.

H3: Online learning system characteristics positively affected attitudes towards using online learning. Path estimates were ($\beta = 0.164$, $t = 2.485$, $P = 0.013$) reporting a significant effect supporting H3.

H4: Online learning system characteristics positively affected the behavioral intentions of online learning. Path estimates were ($\beta = 0.248$, $t = 4.260$, $P = 0.000$) reporting a significant effect supporting H4.

H5: PEOU significantly affected PU of online learning. Path estimates were ($\beta = 0.499$, $t = 6.008$, $P = 0.000$) reporting a positive effect supporting H5.

H6: PEOU of online learning significantly affected attitudes toward online learning. This was the only non-supported hypothesis as the path estimates were not significant: ($\beta = 0.117$, $t = 1.430$, $P = 0.153$), rendering no support for H6.

H7: PU of online learning significantly affected attitudes towards using online learning. Path estimates were ($\beta = 0.621$, $t = 8.876$, $P = 0.000$), reporting a positive effect supporting H7.

H8: PU significantly affected behavioral intentions to use online learning. Path estimates were ($\beta = 0.256$, $t = 3.364$, $P = 0.001$) reporting a positive effect supporting H8.

H9: Attitudes towards online learning significantly affected behavioral intentions to use online learning. Path estimates were ($\beta = 0.426$, $t = 5.190$, $P = 0.000$) reporting a positive effect supporting H9. Table six provides a summary of path estimates.

Table 6. *Summary for path estimates*

<i>H</i>	<i>Path</i>	<i>Beta</i>	<i>Decision</i>
<i>H1</i>	Online learning system characteristics → Perceived usefulness	0.247*	Supported
<i>H2</i>	Online learning system characteristics → Perceived ease of use	0.679*	Supported
<i>H3</i>	Online learning system characteristics → Attitudes	0.164*	Supported
<i>H4</i>	Online learning system characteristics → Behavioral intentions	0.248*	Supported
<i>H5</i>	Perceived ease of use → Perceived usefulness	0.499*	Supported
<i>H6</i>	Perceived ease of use → Attitudes	0.117	Not supported
<i>H7</i>	Perceived usefulness → Attitudes	0.621*	Supported
<i>H8</i>	Perceived usefulness → Behavioral intentions	0.256*	Supported
<i>H9</i>	Attitudes → Behavioral intentions	0.426*	Supported

* $P < 0.01$

Finally, to test H10, which says that “The positive effect of proposed determinants on attitudes and BIs was more robust for EFL students who studied online for four semesters or more than EFL students who studied less than four semesters”, the researchers executed MGA using PLS. Parametric test results for the differences in path coefficients between the two groups (Less than four semesters vs. Four or more semesters). The results revealed insignificant differences for all paths donating that enrolling in more than four online semesters did not add any improvements to the model. Hence, H10 is not supported. Table seven gathered parametric test results for comparisons between path estimates.

Table 7. *Parametric test results*

<i>H</i>	<i>Path</i>	<i>Beta-diff</i>	<i>P-value</i>
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H1	Online learning system characteristics → Perceived usefulness	0.163	0.354
H2	Online learning system characteristics → Perceived ease of use	- 0.007	0.938
H3	Online learning system characteristics → Attitudes	- 0.085	0.536
H4	Online learning system characteristics → Behavioral intentions	0.030	0.797
H5	Perceived ease of use → Perceived usefulness	- 0.227	0.161
H6	Perceived ease of use → Attitudes	0.212	0.217
H7	Perceived usefulness → Attitudes	- 0.080	0.582
H8	Perceived usefulness → Behavioral intentions	- 0.138	0.381
H9	Attitudes → Behavioral intentions	0.158	0.346

***P < 0.01**

The following sections will discuss the findings of our study in relation to other studies, along with their practical implications and the conclusion.

Discussion

This study investigated factors that predict EFL students' attitudes toward online learning in the COVID-19 era. TAM was successfully employed to capture the factors that explain students' attitudes. To do so, the quantitative approach guided this study to gather students' perceptions while using an online questionnaire. Scales were adopted from previous studies. The instrument was validated and exhibited satisfactory statistical reliability and validity.

Starting with descriptive analysis, critical implications can be concluded. Although online learning systems became the primary means to interact with students and thus required such systems to be thoroughly and professionally tailored to provide education of high quality, students' perceptions of benefits that should be provided by systems were of moderate levels. This entailed that these systems were still subject to improvement and enhancement that should be considered by these systems developers.

Through path estimates supported by bootstrapping results, most hypotheses were supported except for the association between PEOU and attitudes. Findings of Alharbi and Drew (2014), Hsieh et al. (2016), Pituch and Lee (2006), and Salloum et al. (2019) all supported the positive effect of online learning system characteristics on PU of online learning. Pituch and Lee (2006) and Salloum et al. (2019) also found a positive impact of online learning system characteristics on the PEOU of online learning. Positive effects of online learning system characteristics on both attitudes and BIs of EFL learners were also depicted in studies by Kanwal and Rehman (2017) and Pituch and Lee (2006). Like online learning system characteristics, the positive effects of PU of online learning on attitudes and BIs of EFL learners were also supported by most of the studies (Almarabeh, 2014; Farahat, 2012; Halemam & Yamat, 2021; Jiang et al., 2021; Natasia et al., 2022; Salloum et al., 2019;).

In contrast, PEOU and attitudes toward EFL learners' use of online learning received contradictory views. While most of the studies supported the positive effects of PEOU on PU of online learning (Almarabeh, 2014; Al-Okaily et al., 2020; Farahat, 2012; Hsieh et al., 2016; Jiang et al., 2021), some studies were inconsistent about the relationship between PEOU and attitudes towards online learning. Natasia et al. (2022) findings were conformed with our results that PEOU did not positively affect EFL learners' attitudes toward using online learning. On the contrary, Almarabeh (2014), Farahat (2012), and Jiang et al. (2021) findings revealed positive effects of PEOU on learners' attitudes. The association between PEOU and attitudes was seen as insignificant. This entailed a critical implication that should be considered. The ease of using online learning systems couldn't foster or shape the students' attitudes. This took us to the earlier point that the ease of use of online learning is still a subject for improvement to promote its role in becoming a significant predictor of attitudes.

Likewise, the findings related to attitudes and BIs towards using online learning were also discordant. While studies by Almarabeh (2014), Farahat (2012), Haleman and Yamat (2021), and Natasia et al. (2022) supported our findings that attitudes towards online learning significantly affected their behavioral BIs, findings of other studies like Jiang et al. (2021) and Teo et al., (2008) found that EFL learners' attitudes towards online learning had an unimportant effect on their behavioral intentions to use online learning. Finally, our findings proved that the experience in online learning did not have a positive impact on EFL learners' attitudes and BIs to use it. We argued that the insignificant effect of previous online learning experience on students' attitudes toward using online learning might be because dealing with technology and its tools was considered a normal part of the students' daily life with different degrees. It could also be attributed to the sudden, supposedly temporary, and abrupt shift to online learning because of Covid-19 lockdown measures. Studies by Hrtoňová et al. (2014) and Mailizar et al. (2021) showed concordance with these findings, while studies by Abramson et al. (2015) and Jiang et al. (2021) revealed a positive effect of experience on attitudes and BIs to use online learning.

Path estimates for all proposed associations that reported significant positive influences to support the idea that these factors as predictors for attitudes and BIs provided a promising scenario if online learning systems are maintained effectively. Students' attitudes will be in favor of these systems. Accordingly, their future intention to use these systems can be granted.

Conclusion

The aim of this research is to understand how EFL students receive online learning to enhance its points of strength and address its challenges. As a result, the researchers applied TAM to investigate students' attitudes towards using the online learning system. The most significant findings of this study revealed that characteristics of the online learning system positively affect the EFL learners' PEOU, PU, and attitudes towards online learning systems. Additionally, our findings revealed that the online learning system characteristics positively impact the learners' BIs of the online learning system. Furthermore, PEOU has a positive impact on PU of online learning system and the attitudes toward using it. The PU of online learning has significantly affected the attitudes and the BIs to use it. This study has asserted the essential role the online learning system characteristics ought to play in affecting the learners' attitudes towards the online learning system.

We could conclude that the online learning system needs to be user-friendly to enhance its usability.

Practical Implications

The outcomes of this research have some practical implications for the successful adoption of online learning in teaching English as a foreign language. Taking into consideration that the research results might be shared with other tertiary students, online officials in the higher education institutions in Jordan ought to make use of the positive impact of online learning system characteristics on students' attitudes and behavioral intentions towards the adoption of the online learning system. This positive impact could be enhanced by getting programmed and continuous feedback from the students. Accordingly, the flexibility and constant improvement of online learning system tools empower students learning styles to keep them up-to-date with technological innovation and ultimately produce an autonomous and long-life learner.

The online learning system could be considered an employability skill because EFL learners, especially the future teachers of them, need not to stop developing their language and communication skills. Secondly, and despite the insignificant impact of online experience on EFL students, attention should be paid to the students' psychological aspect towards online learning since it is unquestionably linked to Covid-19 pandemic measures, which gave it a sense of a temporary nature. Education administration and instructors might gradually use all the opportunities to merge online learning as part of the students' lifestyle.

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References

Abdullah, F., & Ward, R. (2016). Developing a general extended technology acceptance model for elearning (GETAMEL) by analysing commonly used external factors. *Computers in Human Behavior*, 56, 238-256. <http://dx.doi.org/10.1016/j.chb.2015.11.036>

- Abramson, J., Dawson, M., & Stevens, J. (2015). An examination of the prior use of e-learning within an extended technology acceptance model and the factors that influence the behavioral intention of users to use m-learning. *Sage Open*, 5(4), 1-9. <http://dx.doi.org/10.1177/2158244015621114>
- Agudo-Peregrina, Á. F., Hernández-García, Á., & Pascual-Miguel, F. J. (2014). Behavioral intention, use behavior and the acceptance of electronic learning systems: Differences between higher education and lifelong learning. *Computers in Human Behavior*, 34, 301-314. <https://dx.doi.org/10.1016/j.chb.2013.10.035>
- Alharbi, S., & Drew, S. (2014). Using the technology acceptance model in understanding academics' behavioural intention to use learning management systems. *International Journal of Advanced Computer Science and Applications*, 5(1), 143-155. <http://dx.doi.org/10.14569/IJACSA.2014.050120>
- Almarabeh, T. (2014). Students' perceptions of e-learning at the University of Jordan. *International Journal of Emerging Technologies in Learning*, 9(3), 31-35. <http://dx.doi.org/10.3991/ijet.v9i3.3347>
- Al-Okaily, M., Alqudah, H., Matar, A., Lutfi, A., & Taamneh, A. (2020). Dataset on the acceptance of e-learning system among universities students' under the Covid-19 pandemic conditions. *Data in Brief*, 32, 1-5. <http://dx.doi.org/10.1016/j.dib.2020.106176>
- Al-Salman, S., & Haider, A. S. (2021). Jordanian university students' views on emergency online. *Online Learning*, 25(1), 286-302. <http://dx.doi.org/10.24059/olj.v25i1.2470>
- Al-Shboul, M. A., & Alsmadi, I. (2014). Challenges of utilizing e-learning systems in public universities in Jordan. *International Journal of Emerging Technologies in Learning*, 5(2), 4-10. <http://dx.doi.org/10.3991/ijet.v5i2.1147>
- Al-Suqri, M. (2014). Perceived usefulness, perceived ease-of-use and faculty acceptance of electronic books: an empirical investigation of Sultan Qaboos University, Oman. *Library Review*, 63(4/5), 276-294. <http://dx.doi.org/10.1108/LR-05-2013-0062>
- Babin, B. J., Hair, J. F., & Boles, J. S. (2008). Publishing research in marketing journals using structural equation modeling. *Journal of Marketing Theory and Practice*, 16(4), 279-286. <http://dx.doi.org/10.2753/MTP1069-6679160401>
- Badran, A. (2014). New trends in higher education in Jordan 2014. *Education, Economic and Development. 4th Arab-Turkish Congress of Social Sciences* (pp. 1-28). Amman: Arab Thought Forum.
- Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78-117. <http://dx.doi.org/10.1177/0049124187016001004>
- Bougie, R., & Sekaran, U. (2019). *Research methods for business: A skill building approach* (8th Ed.). John Wiley & Sons.
- Chou, I.-C. (2016). Reading for the purpose of responding to literature: EFL students' perceptions of e-books. *Computer Assisted Language Learning*, 29(1), 1-20. <http://dx.doi.org/10.1080/09588221.2014.881388>
- Davies, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(2), 319-340. <http://dx.doi.org/10.2307/249008>
- Education, M. o. (2022, January 15). *Legislation/Arabic*. Retrieved from Ministry of Higher Education in Jordan website:

- <https://mohe.gov.jo/Ar/List/%D8%A7%D9%84%D8%A7%D9%86%D8%B8%D9%85%D8%A9>
- Farahat, T. (2012). Applying the technology acceptance model to online learning in the Egyptian universities. *Procedia - Social and Behavioral Sciences*, 64, 95-104.
<http://dx.doi.org/10.1016/j.sbspro.2012.11.012>
- Fornell, C., & Larcker, F. D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Sage Publications, Inc.*, 18(1), 39-50.
<http://dx.doi.org/10.2307/3151312>
- Granic, A., & Marangunic, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology*, 50(5), 2572-2593. <http://dx.doi.org/10.1111/bjet.12864>
- Hair, J. F., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications, Inc.
- Haleman, K. N., & Yamat, H. (2021). The acceptance of e-learning among ESL primary school students during Covid-19. *Journal of English Language Teaching and Applied Linguistics*, 3(1), 8-18. <http://dx.doi.org/10.32996/jeltal.2021.3.1.2>
- Hassanzadeh, A., Kanaani, F., & Elahi, S. (2012). A model for measuring e-learning systems success in universities. *Expert Systems with Applications*, 39(12), 10959-10966.
<http://dx.doi.org/10.1016/j.eswa.2012.03.028>
- Hrtoňová, N., Kohout, J., Rohlíková, L., & Zounek, J. (2014). Factors influencing acceptance of e-learning by teachers in the Czech Republic. *Computers in Human Behavior*, 51(B), 873-879. <http://dx.doi.org/10.1016/j.chb.2014.11.018>
- Hsiao, C.-H., & Tang, K.-Y. (2014). Explaining undergraduates' behavior intention of e-textbook adoption: Empirical assessment of five theoretical models. *Library Hi Tech*, 32(1), 139-163. <http://dx.doi.org/10.1108/LHT-09-2013-0126>
- Hsieh, J. S., Huang, Y.-M., & Wu, W.-c. V. (2016). Technological acceptance of LINE in flipped EFL oral training. *Computers in Human Behavior*, 70, 178-190.
<http://dx.doi.org/10.1016/j.chb.2016.12.066>
- Jiang, M. Y.-c., Jong, M. S.-y., Lau, W. W.-f., Meng, Y.-l., Chai, C.-s., & Chen, M. (2021). Validating the general extended technology acceptance model for e-learning: evidence from an online english as a foreign language course amid Covid-19. *Frontiers in Psychology*, 12, 671615-. <http://dx.doi.org/10.3389/fpsyg.2021.671615>
- Kanwal, F., & Rehman, M. (2017). Factors affecting e-learning adoption in developing countries—empirical evidence from Pakistan's higher education sector. *IEEE Access*, 5, 10968-10978. <http://dx.doi.org/10.1109/ACCESS.2017.2714379>
- Liu, I.-F., Chen, M., Sun, Y., Wible, D., & Kuo, C.-H. (2010). Extending the TAM model to explore the factors that affect Intention to use an online learning community. *Computers & Education*, 54(2), 600-610. <http://dx.doi.org/10.1016/j.compedu.2009.09.009>
- Mailizar, M., Burg, D., & Maulina, S. (2021). Examining university students' behavioural intention to use e-learning during the Covid-19 pandemic: An extended TAM model. *Education and Information Technologies*, 26, 7057-7077.
<http://dx.doi.org/10.1007/s10639-021-10557-5>
- Ministry, J. P. (2021, December 9). *Jordan - National Legislation*. Retrieved from UN Environment Program. LEAP: <https://leap.unep.org/countries/jo/national-legislation/announcement-enforcement-jordan-national-defence-law-no13-1992>

- Mohammadi, H. (2015). Investigating users' perspectives on e-learning: An integration of TAM and IS success model. *Computers in Human Behavior*, 45, 359-374.
<http://dx.doi.org/10.1016/j.chb.2014.07.044>
- Natasia, S. R., Wiranti, Y. T., & Parastika, A. (2022). Acceptance analysis of NUADU as e-learning platform using the Technology Acceptance Model (TAM) approach. *Procedia Computer Science*, 197, 512-520. <http://dx.doi.org/10.1016/j.procs.2021.12.168>
- Pallant, J. (2020). *SPSS survival manual*. Routledge.
- Pituch, K. A., & Lee, Y.-k. (2006). The influence of system characteristics on e-learning use. *Computers & Education*, 47(2), 222-244.
<http://dx.doi.org/10.1016/j.compedu.2004.10.007>
- Salloum, S., Alhamad, A. Q., Al-Emran, M., Abdel Monem, A., & Shaalan, K. (2019). Exploring students' acceptance of e-learning through the development of a comprehensive technology acceptance model. *IEEE Access*, 7, 128445-128462.
<http://dx.doi.org/10.1109/ACCESS.2019.2939467>
- Shadiev, R., & Yang, M. (2020). Review of studies on technology-enhanced. *Sustainability*, 12(2), 524. <http://dx.doi.org/10.3390/su12020524>
- Teo, T., Wong, S. L., & Chai, C. S. (2008). A cross-cultural examination of the intention to use technology between Singaporean and Malaysian pre-service teachers: An application of the technology acceptance model (TAM). *Educational Technology & Society*, 11(4), 265-280.
- Wimpenny, K., Adefila, A., & DeWinter, A. (2018). *Needs Analysis Report*. Retrieved from JOVITAL - Jordan Opportunity for Virtual Innovative Teaching and Learning: <https://jovital.eu/needs-analysis-report/>. <http://dx.doi.org/10.18552/jovital/2018/001>

The Impact of Designing an Electronic Course of Computer Uses on Developing Academic Achievement and Creative Thinking in a Saudi University

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Abstract

This research aims to measure the impact on academic achievement and developing creative thinking skills by designing an electronic course (e-course hereafter) for computer uses in teaching at a Saudi university. Following a quasi-experimental methodology, forty students (female) were selected and segregated into control and experimental groups for this study. The latter was taught using the designed e-course for 'Computer Uses in Teaching' and the former was taught in a normal class. To achieve research objectives, research tools consisted of an e-course (a cognitive test to measure academic achievement), and Torrance test to measure creative thinking skills. The results demonstrated a significant difference ($\alpha \geq 0.05$) between the experimental and the control groups in the average score of achievement test. The post-test synthesis, analysis, and evaluation levels were found in accordance with the experimental group. The average score of post-test creative thinking test results evaluated at the levels of flexibility, fluency, and originality were also found to be significantly different ($\alpha \geq 0.05$) with respect to the two groups. It is recommended to develop the digital content in accordance with the measures taken during the Corona pandemic and e-learning standards.

Keywords: academic achievement, creative thinking skills, designing course, electronic course

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Introduction

Scientific and technological development has led to rapid and successive changes in all aspects of life which is reflected in the educational process in all disciplines. It is, therefore, necessary to develop the educational system to meet the learning needs resulting from developments in education and technology to meet actual realities and to keep pace with recent global trends. In the 21st century, educational programs based on novel technological approaches and e-communication are found to be the most effective, as they “develop abilities, skills and knowledge of learners” (Aikina et al., 2015, p.58). Appearance of the deadly Corona virus in the last few months of 2019 led to the closing of all educational institutions and proposing e-learning and distance education in emergencies to ensure that students did not drop out of education under the Corona pandemic. Therefore, there was a call to blend the conventional teaching with online teaching to help learners cope with the challenges during the pandemic (Aboagye et al., 2020, p. 1).

E-learning relies on a range of modern technology methods, which can be used to facilitate student learning processes by providing educational contents through the preparation and design of e-courses that are either synchronous or asynchronous (Wheeler, 2012, p. 1109). In Saudi context, Al-Samiri (2021) pointed out that:

"Most Saudi universities utilized Blackboard, a Learning Management System (LMS), designed to deliver both synchronous and asynchronous modes of learning. However, this software was not used extensively and served a supplementary role prior to the pandemic, and its e-learning users are still discovering its features." (p. 149).

According to Tran et al. (2010), an electronic course is based on computer techniques, offering study material through the Internet and using various multimedia elements as support. Learning, teaching, assessment processes are carried out through the Internet" (p. 11). Several studies have examined the importance of electronic courses and their use by students. Zengin (2012) which has emphasized the extent to which students benefit from e-courses in the learning process. Pereira, Wen and Tavares (2015) focused on the introduction of an e-course capable of promoting knowledge and acquiring skill, along with the research of Trotter (2007), which demonstrates the impact of e-course on students' academic achievement.

The interest in developing thinking skills is increasing in the current century where creative thinking has taken an important place. For Jackson et al. (2012), creative thinking is a mental phenomenon that results in new ideas or concepts or their combination (p. 372). Grégoire (2016) has discussed Woodman and Schoenfeld's (1989) viewpoint and proposed a development model that leads to interaction between three components: “mental abilities and personal traits on one side; family and education on the other side; and the current situation” (p.26). This interaction helps produce the three important elements of creativity, *viz.* fluency, originality, and flexibility. Therefore, education experts emphasize the need to develop the different thinking skills of students and teach them how to think creatively through an approach that focuses on different dimensions of thinking, *viz.* conceptual, cognitive, and metacognitive, in learning (Kusmayanti et al., 2018). Studies on creative thinking skills, (e.g., Bahar & Maker, 2011), have revealed that the creative ability for success and achievement is concerned with developing students' creative thinking skills (Moma et al., 2013).

International and regional conferences have also urged development of education curricula and application of technology. For example, the Second International Conference on the Development of University Education Environment, held in 2012 recommended that a more student-friendly learning environment should be made. It also recommended that the role of e-courses and that of e-learning environments be activated, university-wise, for responding to student's needs. In turn, this study could benefit all Saudi universities, particularly emerging universities, which must establish infrastructure for electronic education centers, planners and developers of curriculum, as well as university education experts to review the contents, objectives and education methods. This will enable university students to acquire knowledge related to technological innovations using e-courses to increase the level of academic achievement; scientific innovation; and making education more interesting.

Research Problem

The research problem can be identified in the following main question:

- What is the impact of designing an e-curriculum on teaching, on students' achievements, and on developing creative thinking skills of female students at a Saudi university?

Following are the detailed sub-questions originating from the main research problem:

1. What is the perception of an e-course for 'Computer Uses in Teaching'?
2. What is the effect of an e-course on learners' achievements as per Bloom's Synthesis levels?
3. What is the effect of an e-course on learners' achievements as per Bloom's Analysis levels?
4. What is the effect of an e-course on learners' achievements as per Bloom's Evaluation levels?
5. What is the effect of an e-course on learners' creative thinking skills, such as Fluency, Flexibility, and Originality?

Research Hypotheses

1. The average scores of the control and the experimental groups of female students in the post test for Achievement at the Synthesis level exhibit no significant difference ($\alpha \geq 0.05$).
2. The average scores of the control and the experimental groups of female students in the post test for Achievement at the Analysis level exhibit no significant difference ($\alpha \geq 0.05$).
3. The average scores of the control and the experimental groups of female students in the post test for Achievement at the Evaluation level exhibit no significant difference ($\alpha \geq 0.05$).
4. The average scores of the control and the experimental groups of female students in the post test of Achievement for the creative thinking skill evaluation of Fluency exhibit no significant difference ($\alpha \geq 0.05$).
5. The average scores of the control and the experimental groups of female students in the post test of Achievement for the creative thinking skill evaluation of Flexibility exhibit no significant difference ($\alpha \geq 0.05$).

6. The average scores of the control and the experimental groups of female students in the post test of Achievement for the creative thinking skill evaluation of originality exhibit no significant difference ($\alpha \geq 0.05$).
- 7.

Research Objectives

This study aims at the following objectives:

1. Designing an e-course for the program ‘Computer Uses in Teaching’ for female students at a Saudi university and to investigate its impact on the academic achievements and creative thinking skills.
2. Identifying the impact of an e-course of ‘Computer Uses in Teaching’ on the academic achievement as for Bloom's higher levels of thinking (synthesis, analysis, and evaluation) of female students at a Saudi university.
3. Detecting the impact of an e-course of ‘Computer Uses in Teaching’ on the enhancement of creative thinking abilities (fluency, flexibility, and originality) of female at a Saudi university.

Significance of the Study

The importance of this research lies in its contribution to the following issues:

1. Providing an e-course model to be designed and produced for the program entitled ‘Computer Uses in Teaching’.
2. Contributing to the development of education by introducing this e-course which defines the roles of university professor and learner, methods of interaction, and online lessons.
3. Overcoming the problems caused by the increasing demand for higher education and the increasing number of male and female students.
4. Educational program designers, faculty members and educational institutions may benefit from this model.
5. Keeping pace with modern and global trends in the development of education through placing the learner at the heart of it.

Methodology and Procedures

This research followed the quasi-experimental method that consists of the control group and the experimental group with a pre-test post-test. This method aims to examine the impact of the independent on the dependent variable.

Population & Sample

The population of this study consisted of female students at Hail University, enrolled at the ‘computer uses in teaching course’ in the 2nd semester of the academic year 2020/2021. The sample for the study comprised 40 female students. The participants were selected randomly. They were informed about the Study; the researcher got their consent for participation in the study. They were also told that they were allowed to withdraw from this study if and when they so desired at any stage without incurring any penalty. It was made sure and the participants were told that their data would be kept confidential and would be used only for research purposes. The participants were divided into two equivalent groups: Experimental (20 female students), and Control (the other 20 female students). For the control group, the conventional method was used to teach the

"Computer Uses in Teaching" program, whereas an e-course was used to teach the experimental group the same course.

Table 1. *Demographic information for the participants*

Group	N	Level	Teaching Method
Control	20	2nd semester	Conventional Method
Experimental	20	2nd semester	An e-course
Total Number of Participants			40

Variables

1. The independent variable: design of an e-course (Computer Uses in Teaching);
2. Dependent variables:
 - a) Academic achievement: Bloom's higher cognitive levels (Synthesis, Analysis, and Evaluation) of female students;
 - b) Creative thinking skills: Flexibility, Fluency, and Originality of female students.

Research Tools

An Achievement Test was used to gauge the impact of the e-course entitled 'Computer Uses in Teaching' on students' academic achievements and Torrance Test was used to evaluate creative thinking skills. The following methods were adopted for test preparation:

- Test tool: an achievement test for the "computer uses in teaching" course was prepared.
- The purpose of the tool: the achievement test was used to gauge the academic achievement at the "computer uses in teaching" course. The test was prepared according to the high order cognitive levels of Bloom's taxonomy: synthesis, analysis, evaluation. It was consisted of 22-multiple choice items, each with four options, one of which represents the correct answer. The total score of the test was 22 marks.

The test was prepared in three stages:

First Stage: Academic Content Analysis of the course (Concepts, Terminology, Facts and Generalizations) as in Table 2 are the test specifications.

Table 2. *Achievement Test Specifications*

No.	Topics	Cognitive levels of objectives			Lesson Items Sum	Relative weight of topics
		Synthesis	Analysis	Evaluation		
1	Introduction to the computer and its matter	0	5	1	6	27.27%
2	Computer Components	2	3	1	7	31.81%
3	Computer viruses, and application programs	3	3	2	8	36.36%
4	Computer uses in education: advantages and Justifications	0	0	2	2	9.09%
Total		5	11	6	22	100%
Relative weight of cognitive levels of the objectives		22.72%	50%	27.27%	100%	

- Test Formulation: Multiple-choice in the light of behavioral goals.

- Drafting Test Instructions: The title and purpose of the test for research, instructions for conducting the test, its time duration, and the ways to answer the items were duly explained.
- Preparing an answer key: An answer key was prepared for correcting the achievement test. It shows scores distribution, where one score is assigned to each test item, where each correct answer takes one degree, and zero for each wrong answer. The maximum degree is twenty-two (22), and the minimum is zero (0).

Second Stage: Ensuring the internal consistency and test reliability

To verify of the internal consistency and reliability of the test, it was conducted on a pilot sample, consisted of 16 female students who did not belong to the actual sample. Results of the verification of internal consistency are presented below:

a. Internal Consistency

Pearson Correlation Coefficient was calculated between the degree of each item in the test with respect to its related total cognitive level degree. Table 3 demonstrates the results.

Table 3. *Correlation Coefficients (CC) between the degree of each test item and the total degree of the cognitive level to which it belongs*

Synthesis Level		Analysis Level				Evaluation Level	
No.	CC	No.	CC	No.	CC	No.	CC
1	0.697**	1	0.574*	7	0.793**	1	0.635**
2	0.896**	2	0.704**	8	0.753**	2	0.680**
3	0.854**	3	0.608**	9	0.753**	3	0.712**
4	0.874**	4	0.776**	10	0.740**	4	0.804**
5	0.798**	5	0.525*	11	0.608*	5	0.882**
		6	0.813**			6	0.574*

**Significant level 0.01

* Significant level 0.05

Table 3 shows that all items of the test have a statistically significant correlation coefficient with the cognitive level they measure. The range of correlation coefficient significance levels are from 0.01 to 0.05. Table 4 illustrates the correlation coefficient between the total test degree with respect to each cognitive level degrees.

Table 4. *Correlation Coefficients (CC) between the degree of each cognitive level and the total degree of the achievement test*

Cognitive Levels	No. of items	CC
Synthesis	5	0.942**
Analysis	11	0.947**
Evaluation	6	0.956**

**Significant level 0.01

Table 4 shows that the degree of each cognitive level (Synthesis, Analysis, Evaluation) depends on the total score of the test, as the correlation coefficient was significant at the 0.01 level. These results demonstrated a high degree of internal consistency for the test.

b. Testing Reliability

To verify the reliability of the test, the Alpha Cronbach coefficient was calculated for the three cognitive levels of the test and the scale as a whole. The results are presented in Table 5.

Table 5. Reliability coefficient for the achievement test

Cognitive Levels	No. of Items	Cronbach's Alpha
Synthesis	5	0.879
Analysis	11	0.890
Evaluation	6	0.807
The test as whole	22	0.952

The reliability coefficients have a high degree of Reliability, as alpha – Cronbach coefficients for the test levels ranges from (0.807 – 0.879). Alpha-Cronbach coefficient was 0952 for test as whole. The previous results presented in tables 3,4 and 5 confirmed the validity of the test for achieving the objectives of the current study.

c. Calculating Discrimination and Facility Coefficients of the achievement test

To calculate the discrimination coefficient, the test sheet has been arranged upward or downward based on the overall test score. Two categories are chosen based on the test. If the number of students is less than 30, the answer papers can be divided into two sections by 50% for each section. The discrimination coefficient is calculated by the following equation (Eid, 2012, p. 19):

Discrimination

$$\text{coefficient} = \frac{\text{Correct answers No in the higher group} - \text{Correct answers No in the lower group}}{\text{Students No in one group of the two}} \times 100\%$$

Al-Azzawi (2008) explains that items with a discrimination coefficient greater than 0.39 are items of high discrimination coefficient, and for the Facility coefficient, it is calculated as follows.

$$\text{Facility coefficient} = \frac{\text{Correct answers No in the higher group} + \text{Correct answers No in the lower group}}{\text{Students No in one group of the two}} \times 100\%$$

The difficulty coefficient = 1 - the Facility coefficient.

The items with facility or difficulty coefficients in the range between 0.2 to 0.8 are acceptable. Table 6 shows the values of the discrimination, facility and difficulty coefficients.

Table 6. Test items' Discrimination, Facility and Difficulty coefficients

No.	Discrimination coefficient	Facility coefficient	Difficulty coefficient	No.	Discrimination coefficient	Ease coefficient	Difficulty coefficient
1	0.50	0.63	0.37	12	0.50	0.25	0.75
2	0.63	0.31	0.69	13	0.50	0.25	0.75
3	0.63	0.44	0.56	14	0.50	0.25	0.75
4	0.50	0.25	0.75	15	0.50	0.38	0.62
5	0.50	0.25	0.75	16	0.50	0.50	0.50
6	0.50	0.5	0.50	17	0.50	0.50	0.50
7	0.50	0.38	0.62	18	0.50	0.25	0.50

8	0.50	0.5	0.50	19	0.63	0.56	0.44
9	0.50	0.38	0.62	20	0.75	0.63	0.37
10	0.50	0.38	0.62	21	0.75	0.38	0.62
11	0.63	0.31	0.69	22	0.50	0.50	0.50

The results in Table 6 clarify that all test items have discrimination, facility and difficulty coefficients that fall within the acceptable range in the educational studies.

d. Pre-test application for the achievement test

To examine the equivalence of the achievement in the "computer uses in teaching" course, the Achievement Test was administrated on both groups (experimental and control) before applying the study. Thereafter, the "Man-Whitney *U*" test was used to evaluate the significant difference between the average scores of the two groups in the pre-test. The results are presented in Table 7.

Table 7. Results of Pre-test application of the achievement test

Test Cognitive Levels	Study Groups	Total Ranks	Ranks' Average	U – Value	Z- Value	Significant Level	Significance
Synthesis	Experimental	437	21.8	173	1	0.478	Insignificant
	Control	383	19.15				
Analysis	Experimental	426	21.33	183.5	0.488	0.659	Insignificant
	Control	393	19.68				
Evaluation	Experimental	364	18.20	154	1.43	0.153	Insignificant
	Control	456	22.80				

The results illustrate that the levels of ranking in the Pre-test application of the Achievement test for the experimental and the control groups are not significantly different. This validates that the two groups are equal with respect to higher cognitive levels (such as Synthesis, Analysis, and Evaluation).

Torrance Verbal Test (A) tool

To measure creative thinking skills, Torrance's Verbal (A) Test was used, as it is one of the most important global measures of creativity that many studies have used to measure creative thinking skills, efficiently. It is rationalized to the Saudi context, is accredited by Saudi Ministry of Education, and is suitable for use at all education grades.

First Stage: Planning and preparing the test through

- Identifying test aim: It is to evaluate the creative thinking ability of female students in Computer Uses Courses, Faculty of Education, Hail University.
- Specifying creative thinking skills measured by the test: They are: fluency, flexibility, and originality.
- Torrance Creative Thinking Test (A) consists of seven subtests, which take five minutes to answer. These tests are as follows: questioning, predicting causes, predicting results, enhancing production, and uncommon uses such as unusual questioning, and suppose. Verbal type (A) was used in this research. The Creative Thinking Test of Torrance was restricted only for the first three subtests, i.e., questioning, predicting causes, and predicting results for the 'uses of computers in teaching' course.

- Test instructions formulation: The activities in the handbook will give you the opportunity to use your imagination and think of ideas. Answers in these activities will not be regarded right or wrong. The goal is to find out how many ideas you can offer.

Attesting internal consistency and reliability of Torrance Test for Creative Thinking (A)

- a. Calculating validity of test internal consistency

To verify the internal consistency validity, the test was applied to the pilot sample, which calculates the correlation coefficients among various dimensions and every test dimension's degree along with the calculation of correlation coefficients among the total test score and every dimension's degree. Table 7 demonstrates the results.

Table 8. *Correlation coefficients of the dimensions of Torrance test "a"*

Test Dimensions	Fluency	Flexibility	Originality	Total Degree
Fluency	1	0.681**	0.763**	0.894**
Flexibility		1	0.723**	0.883**
Originality			1	0.929**
Total Degree				1

**Significant level 0.01

The results shown in table 8 indicates that Torrance test dimensions are associated with each other, as the correlation coefficients between these dimensions was significant at the level of 0.01.

- b. Test Stability:

Test-retest was done to establish the validity of Torrance test (a). The post-test was conducted four weeks after the pre-test. Then, an analysis of the results was done and Pearson correlation coefficient was calculated between scores of the two applications, as shown in Table 9.

Table 9. *Correlation coefficients for Torrance Test (a)*

Test Dimensions	Correlation coefficients
Fluency	0.582*
Flexibility	0.553*
Originality	0.714**
Total Degree	0.816**

**Significant level 0.01

* Significant level 0.05

The results confirm that the test has a high degree of stability, with correlation coefficient values ranging from 0.582 to 0.714 at a significant level of (0.01), (0.05), and a total reliability factor of 0.816 at a significant level of (0.01).

Previous findings on the validity and stability of the test indicate the test validity and relevance to achieve the objectives of the study.

- c. Pre-test application of Torrance creative thinking test

Torrance Creative Thinking Test was previously applied to both the groups of this study, and Man-Whitney Test was then applied to recognize the statistical significance of the differences between the average scores of female students in both groups. Results were as follows:

Table 9. Results of Torrance Creative Thinking Pre-test Application

Plastic Creativity Skills	Group	Total Ranks	Average ranks	U Value	Z Value	Significant Level	Significance
Fluency	Experimental	420	20	190	0.350	0.799	Insignificant
	Control	400	21				
Flexibility	Experimental	403.5	20.18	193.5	0.213	0.826	Insignificant
	Control	416.5	20.83				
Originality	Experimental	436	21.80	174	0.801	0.495	Insignificant
	Control	384	19.20				
Total Degree	Experimental	407	20.35	197	0.084	0.933	Insignificant
	Control	413	20.65				

No significant difference was observed between the grade results of the control and the experimental groups in Torrance Creative Thinking Pre-test application, which confirms the equality of the two groups before the experiment, in terms of creative thinking abilities (flexibility, fluency, and originality).

Research Materials

First: Designing an e-course for the program entitled 'Computer Uses in Teaching'

In the light of one of the research objectives, which is to arrive at a proposed e-course for 'Computer Uses in Teaching' course to the female students at the Faculty of Education, Hail University, the e-course is designed according to the five stages of the general educational design model (Analysis, Design, Development & Production, Implementation, and Evaluation).

1. First Stage: Analysis

This stage consists of the following:

Analysis of Objectives: The overall objective of designing the e-course was to provide the academic material of the course of 'Computer Uses in Teaching' to measure its impact on the academic achievement of female students and to develop their creative thinking skills. In addition, the procedural behavioral objectives were determined and presented to a group of validators to verify their scientific accuracy, formulation soundness, and their correct level.

2. Second Stage: Design

At this stage, specifications of the e-course were written to be implemented in the development phase as follows:

- Procedural Objectives Identification: Objectives were formulated to be comprehensive, relevant to the general objectives and measurable.
- Educational Content Design: Educational content is determined in the light of educational objectives to be achieved. Ideas are broken down and written in brief.
- Learning and Teaching Strategies Identification: The e-course content was presented using visual thinking, participatory learning and e-discussion strategies.
- Designing e-course scenario: It includes the operational steps to build the e-course on the learning management system (Blackboard), as in Table 10.

Table 10. Operational steps to build an electronic course

First Step	Second Step	Third Step
Start Here Page	Course Information (Course Manual)	Course Lessons
Welcome Message	Course Description	Lessons' Objectives
Course Overview	Course Tutor Information	Academic achievement Map
Survey in the course	Course Evaluation	Educational content
Student's Manual	References & Resources	Activities
Dating Activity	Course Policy	Evaluations

3. Third Stage: Development

It consists of the following steps:

- Developing the e-course scenario where the educational content of the course has been distributed into (4) topics and includes (4) video clips, (4) fixed images, structural & closing tests, and learning activities.
- Identifying the software used in online course design, namely, Microsoft PowerPoint, Microsoft Word, and Learning Management System (Blackboard) website.
- Producing and developing multimedia using fixed and moving images, video recording, PowerPoint and text writing and coordination.
- Programming e-course content: Audio-visual multimedia has been integrated into the electronic course.
- Developing the posting medium: The e-course website is developed as an intermediary for posting on the Blackboard Learning Management System on the website of a Saudi university.
- The initial pilot of the e-course: After completing the development processes, the program is tested for application to a group of female students to detect and revise errors.
- Validation: It is conducted by a group of specialists in teaching techniques, who have agreed on the usability and applicability of the e-course.

4. Fourth Stage: Implementation

The e-course was applied to the research sample of female students in order to measure its effectiveness in the academic achievement, develop their creative thinking, and ensure that the product works well.

5. Fifth Stage: Evaluation:

The positive and negative aspects were identified through observing the implementation on the main sample. For improvement, it was presented to a group of validators and education technology specialists. A modification was made in the light of their observations, thus answering the first research question, "What is the proposed perception for designing an e-course for Computer Uses in Teaching?"

Second: Student's Manual:

It is the guide for female students of the experimental group to use the e-course, consisting of: introduction, manual purpose, the objective of using the e-course and the method of its use. The e-course was exposed to a group of validators specialists in teaching/learning techniques. In the light of their notes and guides, some modifications were carried out to have come at the final draft of the manual.

Steps of Study Tool Implementation

After checking the validity and reliability of the tool of the study, the researcher has taken the following steps:

- Random selection of the control and experimental groups.
- Conducting the Pre-Test (Torrance Test for Creative Thinking Skills) for the students (female) of the control as well as of the experimental groups.
- Conducting the research on the experimental group by teaching the e-course designed for the program ‘Computer Uses in Teaching’ via the Internet and teaching the control group in the traditional style for four weeks, two hours a week.
- Conducting the Pre-Test (Achievement, Torrance Creative Thinking Skills Test) for the students of both the groups.
- Test correction (Achievement, Torrance Creative Thinking Skills) so that one score is given for the correct answer, and zero for the wrong answer.
- Making appropriate statistical treatments.

Statistical Tools

The following statistical tools have been followed:

- Pearson Correlation Coefficient, to verify the validity of the internal consistency of the Achievement Test and Torrance Test (A), as well as the latter reliability.
- Cronbach's Alpha factor to attest reliability of the Achievement Test.
- Man-Whitney U test, which is a non-parametric test, is employed, instead of the T-test, to study the differences between two independent samples if comparisons are made between small-number groups. It was employed for evaluating the significant difference among the test scores of controls as well as experimental groups in the Pre-test and Post-test applications of both the Achievement Test and Torrance Creative Thinking test (A).
- Effect of Impact Equation: It was used to gauge the effect of electronic-course on the progression of Bloom's Cognitive Levels (i.e., Synthesis, Analysis and Evaluation) and Creative Thinking abilities (such as Fluency, Flexibility and Originality) of Experimental Group, and the Size of Impact is calculated by this Equation:

$$E_s = \frac{|z|}{\sqrt{n}}$$

Where $|z|$: is the absolute value of the standard degree z . n is the total sample size, (Corder & Foreman, 2011, p. 308). The degree of the impact is estimated by the following values: $0.1 \leq E_s < 0.3$ is a small impact size; $0.3 \leq E_s < 0.5$ is a medium impact size, and $E_s \geq 0.5$ is a large impact size.

Results & Discussion

This section is devoted to the research results statement and discussion through attesting the research hypotheses.

Testing the first hypothesis

The research hypothesis 1 stated that “The average scores of the control and the experimental groups of female students in the post test for Achievement at the Synthesis level exhibit no significant difference ($\alpha \geq 0.05$).”

Table 11 lists the results for Man-Whitney *U* value for the first hypothesis.

Table 11. *The difference between the results of the post-test application for the Synthesis level*

Group	Total Ranks	Average ranks	U Value	Z Value	Significance	Significant Level
Experimental	583	29.35	23	4.95	0.00	Significant
Control	233	11.65				

Table 11 demonstrates that the results of the post-test application of the Achievement Test at the Synthesis level were considerably different ($\alpha \geq 0.05$) for the control and the experimental groups and the differences supported the experimental group. The impact size (Es) of the e-course at the Synthesis level of the experimental group was 0.78, which is significantly large.

Testing the second hypothesis

The research hypothesis 2 stated that “The average scores of the control and the experimental groups of female students in the post test for Achievement at the Analysis level exhibit no significant difference ($\alpha \geq 0.05$).”

Table 12 lists the results for Man-Whitney *U* value for the second hypothesis.

Table 12. *The difference between the results of the post-test application for the Analysis level*

Group	Total Ranks	Average ranks	U Value	Z Value	Significance	Significant Level
Experimental	584.50	29.23	25	4.777	0.00	Significant
Control	235.50	11.78				

Table 12 demonstrates that the results of the post-test application of the Achievement Test at the Analysis level were considerably different ($\alpha \geq 0.05$) for the control and the experimental groups and the differences supported the experimental group. The impact size (Es) of the e-course at the Analysis level of the experimental group was 0.75, which is significantly large.

Testing the third hypothesis

The research hypothesis 3 stated that “The average scores of the control and the experimental groups of female students in the post-test for Achievement at the Evaluation level exhibit no significant difference ($\alpha \geq 0.05$).”

Table 13 lists the results for Man-Whitney *U* value for the third hypothesis.

Table 13. *The difference between the results of the post-test application for the Evaluation level*

Group	Total Ranks	Average ranks	U Value	Z Value	Significance	Significant Level
Experimental	583.50	29.18	26.5	4.88	0.00	Significant

Control	236.50	11.83				
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Table 13 demonstrates that the results of the post-test application of the Achievement Test at the Evaluation level were considerably different ($\alpha \geq 0.05$) for the control and the experimental groups and the differences supported the experimental group. The impact size (Es) of the e-course at the Evaluation level of the experimental group was 0.77, which is significantly large. This can be attributed to the effectiveness of the e-course and its attractive ways and interaction with students. The results of this research are consistent with the findings of Pereira, Wen & Tavares (2015), which indicates positive achievement test results, and with those of Zengin (2012), which confirmed students' benefit from an e-course in learning. In addition, the results are also in line with the findings of Trotter (2007), which illustrates the impact of the syllabus on academic achievement.

Testing the fourth hypothesis

The research hypothesis 4 stated that “The average scores of the control and the experimental groups of female students in the post test of Achievement for the creative thinking skill evaluation of Fluency exhibit no significant difference ($\alpha \geq 0.05$).”

Table 14 lists the results for Man-Whitney *U* value for the fourth hypothesis.

Table 14. *The difference between the results of the post-test application of the creative thinking test for Fluency*

Group	Total Ranks	Average ranks	U Value	Z Value	Significance	Significant Level
Experimental	590	29.50	20	5.51	0.00	Significant
Control	230	11.50				

Table 14 demonstrates that the results of the post-test application of ‘Torrance Test’ for ‘Creative Thinking’ in Fluency skill were significantly different ($\alpha \geq 0.05$) for the control and the experimental groups and the differences supported the experimental group. The impact size (Es) of the e-course on the Fluency skill of the experimental group was 0.87, which is significantly large.

Testing the fifth hypothesis

The research hypothesis 5 stated that “The average scores of the control and the experimental groups of female students in the post test of Achievement for the creative thinking skill evaluation of Flexibility exhibit no significant difference ($\alpha \geq 0.05$).”

Table 15 lists the results for Man-Whitney *U* value for the fifth hypothesis:

Table 15. *The difference between the results of the post-test application of the creative thinking test for Flexibility*

Group	Total Ranks	Average ranks	U Value	Z Value	Significance	Significant Level
Experimental	530	26.50	80	3.82	0.00	Significant

Control	290	14.50				
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Table 15 illustrates that the results of the post-test application of ‘Torrance Test’ for ‘Creative Thinking’ in Flexibility skill were significantly different ($\alpha \geq 0.05$) for the control and the experimental groups and the differences supported the experimental group. The impact size (Es) of the e-course on the Flexibility skill of the experimental group was 0.60, which is significantly large.

Testing the sixth hypothesis

The research hypothesis 6 stated that “The average scores of the control and the experimental groups of female students in the post test for the creative thinking skill evaluation of Originality exhibit no significant difference ($\alpha \geq 0.05$).”

Table 16 lists the results for the Man-Whitney *U* value for the sixth hypothesis:

Table 16. *The difference between the results of the post-test application of the creative thinking test for Originality*

Group	Total Ranks	Average ranks	U Value	Z Value	Significance	Significant Level
Experimental	540	27	70	4.10	0.00	Significant
Control	280	14				

Table 16 illustrates that the results of the post-test application of ‘Torrance Test’ for ‘Creative Thinking’ in Originality skill were significantly different ($\alpha \geq 0.05$) for the control and the experimental groups and the differences supported the experimental group. The impact size (Es) of the e-course on the Originality skill of the experimental group was 0.65, which is significantly large. Thus, it can be said that the e-course greatly affected the Fluency, Flexibility, and Originality skills of the experimental group, which demonstrates the effectiveness of e-course in developing the ability of female students to find and express ideas in an unfamiliar manner and to produce as many ideas creatively as possible. These results are in line with Bahar and Maker’s (2011) study which aims to discover the relationship between creative ability in mathematics and mathematical achievement. Furthermore, the results are also in line with the study of Moma et al. (2013) in which the test subjects of the experimental group were found to be the best when evaluated for identifying the creative thinking abilities in mathematics.

Conclusion

Following is the summary of the result outcomes of the present research work:

1. The average scores obtained by the female students in the post-test for Achievement at the Synthesis level exhibit significant differences ($\alpha \geq 0.05$) between the experimental and the control groups, favoring the experimental group.
2. The average scores obtained by the female students in the post-test for Achievement at the Analysis level exhibit significant differences ($\alpha \geq 0.05$) between the two groups, favoring the experimental group.
3. The average scores obtained by the female students in the post-test for Achievement at the Evaluation level exhibit significant differences ($\alpha \geq 0.05$) between the two groups, favoring the experimental group.

4. The average scores obtained by the female students in the Achievement post-test for 'creative thinking skills for Fluency' exhibit significant differences ($\alpha \geq 0.05$) between the two groups, favoring the experimental group.
5. The average scores obtained by the female students in the Achievement post-test for 'creative thinking skills for Flexibility' exhibit significant differences ($\alpha \geq 0.05$) between the two groups, favoring the experimental group.
6. The average scores obtained by the female students in the Achievement post-test for 'creative thinking skills for Originality' exhibit significant differences ($\alpha \geq 0.05$) between the two groups, favoring the experimental group.

Recommendations

On the basis of the results of this study, it is recommended to:

- Develop digital content in line with e-learning standards, taking cues from the Corona pandemic and beyond.
- Train faculty members in courses concerned with e-course designing.
- Carry out experimental studies to measure the impact of e-courses for developing the skills of digital citizenship considering the pandemic disease of the Corona virus.
- Conduct research works on female students in the field of education for evaluating the effect of e-courses on the progression of graphical thinking abilities.

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References

- Aboagye, E., Yawson, J. A., & Appiah, K. N. (2020). COVID-19 and E-Learning: the Challenges of Students in Tertiary Institutions. *Social Education Research*, 1-8.
- Aikina, T. Y., Sumtsova, O. V. & Pavlov, D. I. (2015). Implementing electronic courses based on Moodle for foreign language teaching at Russian technical universities. *International Journal of Emerging Technologies in Learning*, 10(3), 58-61.
- Al-Azzawi, A. (2008). *Measurement and evaluation in the teaching process*. Amman: Degla House.
- Al-Samiri, A. R. (2021). English Language Teaching in KSA in Response to the COVID-19 Pandemic: Challenges and Positive Outcomes. *Arab World English Journal (AWEJ)*, Special Issue on Covid 19 Challenges April 2021, 147-159

- Bahar, K., & Maker, J. (2011). Exploring the relationship between mathematical creativity and mathematical achievement. *Asia-Pacific Journal of Gifted and Talented Education*, 3(1), 33-48.
- Corder, G. & Foreman, D. (2009). *Non parametric statistics for non-statisticians: a step by step approach*. Willey sons Inc.
- Eid, G. K. (2012). *Educational measurement and evaluation with SPSS applications*. Kuwait: Al Falah Library for Publishing and Distribution
- Grégoire, J. (2016). Understanding creativity in mathematics for improving mathematical education. *Journal of Cognitive Education and Psychology*, 15(1), 24-36.
- Jackson, L., Witt, E., Games, A., Fitzgerald, H., von Eye, A. & Zhao, Y. (2012). Information technology use and creativity: Findings from the Children and Technology Project. *Computers in Human Behavior*, 28(2), 370-376.
- Kusmayanti, I., Sumantri, S. & Noornia, A. (2018). The Effect of Concept-Rich Instruction on the Ability of Mathematical Study School Students Under reviewed from Math Anxiety. *International Journal of Scientific and Research Publications*, 8(8), 430-436.
- Le, D. L., Tran, V. H., Nguyen, D. T., Nguyen, A. T. & Hunger, A. (2010). Applying Pedagogical Analyses to Create an On-Line Course for e Learning. In Setchi, R., et al. (Eds.), 14th International Conference on *Knowledge- Based and Intelligent Information & Engineering Systems* (KES 2010% 8- 10 September, Cardiff, Wales, UK, Lecture Notes in Computer Science, Vol. 6277, pp. 114- 123.
- Moma, L., Kusumah, S., Sabandar, J. & Dahlan, A. (2013). The enhancement of junior high school students mathematical creative thinking abilities through Generative learning. *Mathematical Theory and Modeling*, 3(8), 146-157.
- Pereira, C. A., Wen, C. L., & Tavares, H. (2015). Alcohol abuse management in primary care: an e-learning course. *Telemedicine and e-Health*, 21(3), 200-206.
- Trotter, A. (2007). School Subtracts Math Texts Add E-Lessons, Tests. *EducationWeek*, 26(36), 10-11.
- Wheeler, S. (2012). E-Learning and Digital Learning. In N. M. Seel (Ed.), *Encyclopedia of the Sciences of Learning* (pp. 1109–1111). Boston, MA: Springer.
- Woodman, R. W., & Schoenfeldt, L. F. (1989). Individual differences in creativity. In *Handbook of creativity* (pp. 77-91). Springer, Boston, MA.
- Zengin, O. (2012, April). A Case Study on Moodle: Investigating Students Perceptions on the Use of Moodle. Paper Presented in the *Ireland & UK Moodle moot 2012 Conference Publication*.

Taking the Wave of Digitalization: Reflection on the Psychological Readiness of Teachers in Using Information and Communication Technologies

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Abstract

Considering the brainwave of the psychological approach for the use of Information and Communication Technology (ICT), collaboration, expectation, and motivation have been identified as the aspects of readiness for integrating technology into the teaching strategies. Studies have investigated the integration of ICTs in the teaching/learning process; still there is a lack of research probing the significance of the psychological readiness of teachers on their perceptions about utilizing ICTs in the Algerian EFL context. The research, between hands, aspires to bridge the gaps, reveal the significant obstacles; and barriers encountered while exploring ICTs, and investigate the following query: What are the significant psychological obstacles that might prevent the effective implementation of ICTs? A mixed-method design was used in this research, employing a survey questionnaire and semi-structured interview to collect data from thirty- five EFL teachers at the University of Mohammed Ben Ahmed in Oran; Algeria. Participant teachers reveal a satisfactory willingness for using education technologies. Lack of training, insufficient ICT skills, technology anxiety, resistance to change, and no perception of benefits were the major psychological obstacles reported by the informants. To perk up the digital proficiencies of teachers, to train them to utilize ICTs, and to explore the potential of ICTs were highly recommended to rouse in teachers, the emotional readiness to implement Information Technologies.

Keywords: barriers, digitalization, Information and Communications Technology, teaching and learning in Algerian context, psychological readiness

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Introduction

In the age of digitalization, the use of Information and Communications Technology (ICT) in the context of foreign language teaching and learning is essential to facilitate the process of language learning, and the acquisition of 21st-century skills. ICT revolutionizes the teaching/learning environment, and modernizes the teaching experience of instructors in their role as makers of educational settings. The objective behind incorporating Information Technologies is to develop and enhance the teaching materials, making them understandable and engaging to students at any level of the pedagogical prospectus.

New challenges for teachers are associated with the self-reliant creation and evolution of the learning content, and the adaptation of this later in the structure of varied virtualized options in the ICT plan. Internal and external factors may significantly impede ICT integration, negatively affecting teachers' psychological readiness and willingness to face the challenge. It is critical to investigate the components of psychological readiness of teachers to uncover the significant barriers that may prevent them from accepting novelties and effectively coping with the demands of the digital world.

On this basis, the major problem is the imbalance between the effective implementation of novelties in learning environments, and the deficiency of psychological willingness to take part in innovation readily. Being internally reluctant to explore the innovative technologies of teaching, teachers would deliberately develop a psychological barrier that could prevent them from perceiving the merits of ICTs and, thus, refuse the change brought in education. The broad potential of structuring the psychological preparedness lies in the fact that teachers would have positive attitudes toward implementing ICTs only if they are psychologically ready to raise the deft and adapt quickly to the prevailing changes.

Though several studies have probed the integration of ICTs in the teaching/learning process, only a few types of research have investigated the impact of the psychological readiness of teachers on their attitudes about using ICTs in their classroom instruction. With positive attitudes toward implementing ICTs, EFL teachers would be emotionally prepared to cope with the current alterations. This research attempts to explore the following question:

- What are the significant psychological obstacles that might prevent the effective implementation of ICTs?

The current research intends to underline the psychological strategy about the readiness of teachers to use ICTs to bridge the gaps, and deal with the challenges encountered while exploring the innovative teaching strategies.

Literature Review

Towards a Technology Shift: Major Merits and Challenges

With the implementation of Information and Communication Technologies in education, a significant change has been perceived in the instructive role of the teachers (Petrova, 2016). It is, hence, essential to comprehend the psychological attitudes of teachers toward exploiting new technologies. According to García-Valcárcel and Mena (2021), ICTs are frequently employed as powerful instruments to endorse cooperative learning among learners, and teachers. The

integration of ICTs enables teachers to give assignments, find solutions, surmount difficulties, or invent platforms and online learning applications (Ghounane, 2020).

Studies investigate the potential, and the promising advantages of ICTs to perk up the quality of education, as development in ICTs is both reason and a result of globalization (Hrehova&Teplická, 2020).According to Kent (2004), ICT refers to “Information and Communication Technology such as computers, communications facilities, and features that variously support teaching-learning, and a range of activities in education” (QCA schemes of work for ICT in Kent country council, 2004, p.1).

Besides, Batool, Kazmi, Islam, and Nawaz(2021) argued that the psychological preparation of teachers to employ ICTs has to be supervised by specialists in education. Michaeli, Kroparo, and Hershkovitz(2020)noted that education technologies are the best way to display data to various stakeholders to visualize the concept of the online learning environment. Educational technology devices comprise some types of visual aids that hearten teachers to consider and assist the motivational attitudes and behaviors of students. In a digital world, training teachers to pilot their perceptions and attitudes are more likely to develop their e-competencies and self-confidence. It is beneficial for teachers, and students to have positive perceptions and attitudes toward innovative education technologies (Benmansour, 2021).

The course outline for teachers should bring up-to-date ICT awareness, employing an all-inclusive psychological strategy. According to Rani (2017), considering the implementation of technology in the teaching/learning process, teachers must develop the knowledge and competencies compulsory to utilize ICT in their classroom instruction. Oralbekova, Begalieva, Ortaeva, Magauova, and Suleimen(2021)indicate that it is significant to develop the readiness and willingness of pre-service teachers to use Information Technologies in comprehensive pedagogy and learning.

It is significant to highlight the importance of developing the digital proficiencies of students in the new horizon of technologies. Trans-media technology, in this perspective, as described by Havrilova, Oriekhova, Beskorsa, Churikova-Kushnir, and Sofronii,(2021) is a recent inventive plan, which scientists deem the actual communication revolt. Letendre(2017), in this perspective, put ICT in the concept of world culture and educational psychology.

Selwyn (2010) believes that the correlations between pedagogy and technology are contentious and suggests an effective strategy to go further than wondering if a given technology is effective or not. Researchers like Barak (2016), Perrotta (2017), and Saunders (2013) point out the prevalence of the emotional and social components of teachers when incorporating ICTs in their teaching practices. The use of technology in the teaching and learning process cannot uniquely consider the efficiency of digital competencies (Paraskeva, Bouta, &Papagianni, 2008), but other social and cognitive facets such as readiness, and anticipations, beliefs, perceptions, and attitudes of teachers. Besides, motivation, and enthusiasm should be considered (Tondeur, van Braak, &Ertmer, 2016).

Psychological Attitudes between Raising the Challenge and Resisting the Change

With the emergence of computers affecting nearly all aspects of life, the education sphere also lives a paradigm shift to online learning. Decision-makers and education experts envisage aspirations to perceive a turning point in teaching and learning. Alvarado, Aragón, and Bretones(2020)stated that teachers and students are more engaged when appealing and adequate technology tools are used. General assumptions from the findings are that more particular endorsement, backing and prospects must be provided to boost teachers' motivation and ,thus, perk up their attitudes and aptitudes to implement ICT in teaching (Fernández-Cruz &Fernández-Díaz,2016). Letendre (2017) inspected technology use and reported that the perceptions and readiness of teachers to use technology were essential factors. In a study by Ammani and Aparanjani (2016), it is stated that “because of its interactive and dynamic nature, ICT has the stamina to meet the needs of the individual student by providing opportunities to direct their learning and to pursue information” (p. 2). It seems that ICTs are meant to support the learning content, and stimulate the creative thinking about the curriculum.

Many studies like those of Batool, Kazmi, Islam, and Nawaz (2021) investigated the readiness of pre-service teachers to use educational technologies. It is also critical to mull over the factors hamper this technological alteration. Perienen(2020) described significant teaching changes, and Creswel and Creswell (2018)brought up the low-level use, whereby some fundamental processes like Internet information exploration, presentation programs and other application programs, are inserted into classroom instruction.

Conversely, the shift to technological alterations will bring about an overload in duties and anxieties. Thus, the process of ICT integration would be associated with negative impressions of perceptions that would result in the attitudes of rejection and opposition (Yu, Lin, & Liao 2017).New ICTs cause an overloaded working time for instructors, such as encountering an incessant need for documents, additional virtual seminars, and more regular online classes with students, which negatively impacting their energy and enthusiasm (Ballet &Kelchtermans 2008). Deepiti and Chandraka(2021) stated that:

Most of the students use the android mobile device for online learning. [...] they also require a good internet connection or sufficient mobile internet data. Downloading various study materials require massive mobile internet data. [...] every student can't have enough internet data. It creates a financial burden on these families and thereby on students. (p. 2)

Some researchers like Addas and Pinsonneault(2015) consider that interruptions unconstructively impact task performance, and cause cognitive overload. Another difficulty students meet in e-learning is a lack of comprehending the content taught in distant classes.Deepiti and Chandraka(2021) reported: “ Time length of the online courses also affects the concentration level of students. They face difficulties in accomplishing their online assignments”. (p. 2)

Moreover, technical breakdowns (such as instant messages, emails, etc.), and didactic demands for information may contract, and reduce teaching production. Externally compelled classroom disruptions have some bearing on the learning environment (Leonard, 2001). Those

unconstructive attitudes will result in negative feelings of stress and anxiety (Joo, Lim, & Kim, 2016).

Nowadays, there are rising demands on teachers and education experts to explore the advantages of ICTs to bridge education gaps. The viaduct to the teaching environment, perceptions, and level of competencies teachers have about technology will affect its implementation in the class (Jena, 2015). Selivanova et al. (2020) considered that teachers, in modernized teaching-learning settings, need to be trained to adapt their teaching materials to the new demands of e-learning, and facilitate the comprehension and understanding of content. With unique competencies teachers need to upgrade and master, there is a personal conviction about the effectiveness of the technology (Hidayah, 2015).

Harris, Harris, and Jena (2015) unveiled that beliefs and perceptions of teachers are crucial in shaping significant attitudes and outlooks about technology integration. Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, and Sendurur (2012) advocated that attitudes of teachers about technology greatly impacted their ICT implementation than some contextual issues. She also revealed that when incorporating technology into their syllabus design, teachers' attempts are usually fettered by external (first-order) and internal (second-order) obstacles. First-order obstacles involve the acquisition of digital competencies essential to the use of computers. Second-order barriers apply the teaching strategies of technology incorporation. The significant barriers that lead to negative attitudes among teachers involve technology anxiety, the fear of technical breakdowns, and lack of training (Al-fudailand Mellar(2008), Currie and Eveline (2011), Harris, et al. (2015)&Joo, et. (2016).

Livingstone (2012) considered that ICT integration had afforded revolutionary learning opportunities centered on technology creativeness, collaborative communication fuelled by an emotional willingness, and psychological readiness of teachers. Selwyn (2010) considered that the relations between education and technology still needs investigation, and suggests a critical approach to go further than merely asking if a particular technology works technically.

The implementation of ICTs during the last decades has created crucial advantages by providing innovative learning opportunities based on digital creativity and collaborative communication (Livingstone, 2012). Harmer(2007) stated, "a word innovation means something new, which means new ideas to change things for better"(p.2).He added : "If we look at all the language teaching methods [used] by different teachers [..], we cannot say that all of them are 100% successful. It is essential to keep looking and searching to find ways to make teaching and learning better"(p.2).ICTs have led to fundamental changes in teaching/learning (Almashi, 2019).

Research Design and Methodology

A mixed-method research plan was adopted. Through the mixed-method design, this study started with a quantitative approach and finished with a qualitative approach, wherein the quantitative was more underlined than the qualitative to scrutinize the study's objectives (Creswell& Creswell, 2018).

Instrumentation

A survey questionnaire and semi-structured interview were used. The questionnaire aids in collecting quantitative data, and examining the psychological attitudes of EFL teachers when using ICTs. Using the questionnaire is highly beneficial as it supports the researcher in underlining the significant internal and external psychological barriers to ICT integration. The use of the interview, on the other hand, is meant to collect qualitative data about the perspectives of participant teachers and the use of ICTs in their classroom instruction. The fluent nature of the interview makes the researcher, involved in the study, eager to report the perceptions and voices of the interviewees efficiently and effectively.

The participants of this study were a sample of thirty-five ($n = 35$) Algerian EFL in-service teachers from Mohammed Ben Ahmed university in Oran, Algeria. They were teaching modules like literature, civilization, oral expression, and psychology of education for the license, and master's students in the English language department at the University of Oran²; during the first semester of the academic year 2021-2022. Informants had, at minimum, 06 years of teaching experience. Amid 35 participants, 20 were females (57.1%), and 15 were males (42.8%) teaching as full-time teachers in the department of English. Average age of the teachers was about 47. Selection of participants was based on a random sampling technique. Participants were selected because they used ICTs in their teaching practices, mainly with the shift to online learning during the pandemic.

For soliciting the readiness of EFL teachers to implement ICTs, and the significant obstacles that interfere in the process of the implementation, both quantitative (survey questionnaire) and qualitative (semi-structured interview) data collection instruments were employed. The survey questionnaire data were gathered and examined. Then, the interview data were collected, and reviewed for developing quantitative results. Before collecting information, a pilot test was performed to ensure the validity and reliability of the items. The interview procedure, the selection of the participant teachers was based on their teaching profiles, where ICT tools were utilized in classroom instructions.

Eight EFL teachers (05 females and 03 males) participated in the interview, which took around 15 to 20 minutes. The interview data were analyzed to treat the following themes: availability, competencies, and obstacles to using ICTs that were highlighted for developing an in-depth comprehension of the findings from the survey analysis.

Data Presentation and Analysis

The Questionnaire

To take the wave of digitalization, and cope with the demands of education nowadays, it deems critical for teachers to introduce ICTs in their didactic approaches, and adapt their teaching strategies according to the new learning conditions. Though they seem reluctant to leave their comfort zone, teachers should handle the situation by exploring innovative education technologies, developing ICT skills, and challenging their fears and resistance. Table one gives an idea about ICT tools used by EFL teachers:

Table1. *ICT tools*

ICT tools	%
Internet	85%
WIFI	70%
Social applications	35%
Google	80%
YouTube	77%
Social networks	80%
Online learning platforms	47%

Table one shows that participants were using Internet(85%);Google(80%) ; Social networks(80%); YouTube (77%); WIFI(70%); Online learning platforms (47%), and Social applications (35%) respectively. It seems that teachers are eager to use ICT tools.

In the second question, the participants were asked about the perceived benefits of ICTs. Table two spotlights teachers' perceptions regarding the merits of using ICTs in their teaching.

Table2. *Benefits of ICTs*

Perceived Benefits of ICTs	%
Developing effective and attractive teaching strategies	62%
Having collaborations and cooperation with peers and students	60%
Interacting and communicating online with students	58%
Providing feedback	35%
Using audio and visual aids	59%
Engaging students in learning	57%
improving students' motivation	57%
enhancing students' learning outcomes	47%

Table two reveals that teachers acknowledge the use of ICTs in that it develops practical and attractive teaching strategies (62%), maintains collaborations and cooperation with peers and students (60%), and supports online interaction and communication (58%). Fifty-nine percent of respondents reported that the integration of ICTs rouses the use of audio and visual aids. Seventy-five percent of informants revealed that using ICTs boosted motivation and engagement in teaching and learning. They also pointed out the importance of enhancing learning outcomes of students (47%), and providing feedback (35%). It seems that informants are satisfied with the use of ICTs.

Teachers were, then, questioned about their readiness to utilize ICTs. The following table provides an idea about the aptitudes and proficiencies EFL teachers in using ICTs.

Table 3. E- Competencies of Teachers

E- competencies of Teachers	%
Mastering PowerPoint and excel software	55%
Posting lectures online	53%
Attending virtual meetings	30%
Communicating with students through online platforms	39%
Having distant classes	45%
Using audio, videos, movies ,or songs as teaching materials	37%

Table three indicates that fifty-five percent of teachers use PowerPoint and Excel software, post their lectures online (53%), and have distant classes (45%). 39% of respondents believed that using ICTs permits teachers to communicate with their students via online platforms. 37% reported implementing ICTs embellished and enhanced their teaching using audio, videos, movies, or songs. 30% of responses envelop attending virtual meetings.

The fourth question seeks to inspect the significant internal and external obstacles that may dishearten teachers to use ICTs and, thus, resist the change. Barriers to integrating ICTs are exposed in the following table.

Table4. *Barriers to integrating ICTs*

Barriers and obstacles	%
Cognitive overloads	70%
Lack of training	80%
Overload teaching time	75%
No perception of benefits	78%
Resistance to change	79%
Insufficient ICT skills	80%
Emotional anxiety toward technology	79%
Fear of technical breakdowns	65%
Existing teaching method	74%
Inconsistent syllabus	76%

Findings from table four reveal that most teachers believe that insufficient ICT skill (80%), the lack of training (80%), and emotional anxiety towards technology (79%) as significant barriers to

ICT integration. Teachers believe that resistance to change (79%) results from absence of perception of benefits (78%). Incompatible syllabus (76%) can cause an overload of teaching time (75%). The existing teaching methods (74%) cause cognitive overloads 70%, and develop a fear of technical breakdowns (65%).

In the last question, the informant teachers requested to propose some suggestions for the effective integration of ICTs. Table five provides an idea about the top recommendations.

Table 5. *Suggestions for effective use of ICTs*

<i>Suggestions</i>	<i>%</i>
Developing digital proficiencies of teachers.	69%
Exploring the potential of ICTs	70%
Training teachers to utilize ICTs.	71%
Reducing the teaching hours.	67%
Providing technical support mechanisms.	65%

Table five shows that for implementing ICTs, stakeholders, decision-makers, and education experts should provide training sessions for instructors to use ICTs (71%). They also reported that teachers and students need to explore the potential of ICTs (70%). Results disclose that it is critical developing the digital competencies teachers (69%); reducing the teaching hours (67%); and providing technical support mechanisms (65%). If they are actively trained to employ technology, teachers will be psychologically ready to face the change and develop ICT proficiencies. They would have positive attitudes about introducing education technologies.

The Interview

Online interviews endeavor to elicit voices and considerations of EFL teachers about using ICTs. Interviews attempt to examine the psychological readiness of teachers and the perceived obstacles faced when implementing educational technologies. The interviews also seek to bring out their attitudes and visions about using technology in a digital teaching and learning mode.

Question one: How can the use of ICT be beneficial for your teaching?

Interviewed teachers stated that when using ICT tools, they are encouraged to adopt good and appealing teaching approaches. They added that it maintains collaborations and cooperation with peers and students. An interviewee stated: *“I like interacting and communicating with my students online”*. They reported that the integration of ICTs involves the use of authentic learning materials in addition to audio and visual aids. It is stated: *“when listening to a song in an oral expression session or watching a movie in a lecture of literature, I have my students completely engaged in the learning process”*. They asserted that ICTs increased motivation and engagement in teaching and learning. They also pointed out the importance of enhancing the learning outcomes of students.

Question two: What do you appreciate most in the use of ICT?

Answers showed that using ICTs changes the perception and construction of lesson plans and activities. Participating teachers claimed that it allows them to reconsider the existing teaching approaches and reflect on the inconsistent syllabus employed in the curriculum. It was claimed: *“with technology in classes, teachers are provided with the opportunity to have rich and efficient learning materials which can be shared with peers and students”*. They highlighted the relevance of online learning platforms and social networks in keeping in touch with students and providing feedback.

Question three: How do you evaluate your level of readiness to use ICT?

Interviewed teachers appear to have good competencies in using ICTs in their classroom instructions. They stated that they are competent in PowerPoint and Excel presentations and reported that they frequently post their lectures online, and have online classes.

Question four: What are the major problems encountered when integrating ICT?

Interviewee teachers consider insufficient ICT skills, the lack of training, and technology anxiety the major obstacles faced when integrating ICTs. They believe that inconsistent syllabus, and the existing teaching methods dishearten teachers from using technology, and claim that fear of technical breakdowns, and fears of competition were the actual hampers in implementing ICTs.

Question five: What do you suggest to integrate ICT into education nowadays?

Informant teachers asserted that they should reflect on more engaging enterprises when integrating ICTs. Interviewees insisted that it is crucial, for decision-makers, to provide active training to integrate ICTs effectively. It is also concluded that providing professional and technical support is highly required.

Discussion

Data analysis demonstrates that implementing ICTs in the EFL context was conceived as efficient and effective. Teachers involved in the study revealed a conditioned emotional willingness to utilize ICTs. The finding confirms the results of a survey by García-Valcárcel and Mena (2021) that using ICTs, as a shift mechanism, is advantageous. In this study, EFL teachers concede the learning facilities of educational technologies in enhancing motivation, providing feedback, and updating the traditional teaching approaches. These conclusions support studies by Michaeli, et al. (2020) and Oralbekova, et al. (2021), which indicated that it is significant to develop the psychological readiness of teachers to use ICTs in comprehensive pedagogy and learning.

The findings disclose that teachers were motivated to use ICTs in their didactic strategies. Though, they lack training; teachers are ready to shift to a digital teaching model wherein they are expected to post lectures on the platforms, give lessons online, and attend virtual meetings. These conclusions prop up the research findings by Kapalygina (2021) and Almashi(2019), which expose that the integration of ICTs fosters the construction of social behavior on digitalization. These findings support the results of a study by Havrilova, et al. (2021), which maintained that implementing ICTs is a novel strategy, that researchers consider the turning point of modern communication. This also confirms the findings of research by Alvarado et al. (2020), which maintained positive attitudes and psychological readiness of teachers towards technology was of paramount importance.

Results showed that informant teachers have a psychological readiness to use ICTs, with some limitations. Result might answer the main research question, what are the significant psychological barriers that might prevent the effective implementation of ICTs?

This study showed that the internal obstacles to integrating ICTs, involve insufficient ICT skills, resistance to change, technology anxiety, fear of technical breakdowns, and cognitive overloads. The lack of training, the plethora of teaching time, existing teaching methods, and inconsistent syllabus were the external obstacles as mentioned by Addas and Pinsonneault(2015) and Ertmer (2017).

These findings corroborate the thought of Joo, et al. (2016) and Carlson, et al. (2015), who considered that those internal and external barriers cause negative attitudes about using ICTs. Results, also uphold that computer concerns are a significant obstacle. Findings match the results of a study by Currie and Eveline(2011) that a lack of technical support, and insufficient digital competencies might impede ICT integration. They believed that providing training sessions and exploring the potentials of ICT were the possible enablers to effectively introducing ICTs.

Conclusion

The present research aims to analyze the psychological readiness of EFL teachers to use Information Communication Technologies in English language teaching at Oran University. The paper tries to reflect on the significant internal and external obstacles faced when integrating ICTs. Findings revealed that participant teachers have positive perceptions and attitudes about using ICTs. Analysis also showed that some internal and external barriers prevent the integration of ICTs. Stakeholders and decision-makers should realize that purchasing the latest educational technologies is not the magic stick. Success of this initiative is related with the motivation, collaboration, and the expectation of teachers to accept the change.

Suggestions

Education technologies attempt to promote an engaging and efficient teaching/ learning environment where both teachers and learners are advantageous to the facilities afforded by digitalization. The study provides some suggestions that can assure effective implementation of ICTs in the language teaching/ learning process:

- Encouraging efficient technology plans.
- Developing ICT skills of teachers and students.
- Affording good training programs and software.
- Adopting suitable strategies to meet the content objectives for practical teaching approaches.
- Supporting technology-enhanced teaching for tutors to rise above the obstacles encountered in the educational structure.

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References

- Addas, S., & Pinsonneault, A. (2015). The many faces of information technology interruptions: A taxonomy and preliminary investigation of their performance effects. *Information Systems Journal*, 25(3), 231–273. <http://doi.org/10.1111/isj.12064>
- Afshar, H.S.A. & Asakereh, A. (2016). Speaking skills problem encountered by Iranian EFL freshmen and seniors from their own and their instructors' perspective. *Electronic Journal of Foreign Language Teaching*, 13(1), Pp.112-130
- Al-fudail, M., & Mellar, H. (2008). Investigating teacher stress when using technology. *Computer & Education*, 51(3), 1103–1110. <http://doi.org/10.1016/j.compedu.2007.11.004>
- Almutairy, S; Davies, T., & Dimitriadi, Y. (2015). The readiness of applying M-learning among Saudi Arabian students at higher education *International Conference on Interactive Mobile Communication Technologies and Learning (IMCL)*.33-36. <https://doi.org/10.3991/ijim.v9i3.4423>
- Almashi, I. (2019). Psychology of innovation management using information and communication technologies in the activities of environmental public organizations. *Scientific Bulletin of Mukachevo State University*, 105-107. [https://doi.org/10.31339/2413-3329--2\(10\)/2-105-107](https://doi.org/10.31339/2413-3329--2(10)/2-105-107)
- Alvarado, L. E., Aragón, R. R., & Bretones, F. D. (2020). Teachers' Attitudes Towards the Introduction of ICT in Ecuadorian Public Schools. *TechTrends*, 64,p.2. <http://doi:10.1007/s11528-020-00483->
- Andreevsky, E., Akhmedkhanov, M., Lavina, T., & Streltsov, R. (2015). Improving professional and psychological selection and further development of professionally important qualities of specialists on the protection of important state facilities in the course of educational activities with the use of information and communication technologies. *Procedia – Social and Behavioral Sciences*.497-504. <https://doi.org/10.1016/j.sbspro.11.749>
- Ammani, S. & Aparanjani, U. (2016). The Role of ICT in English Language Teaching and Learning. *International Journal of Scientific & Engineering Research*, (7), July 2016.1. ISSN 2229-5518 IJSER © <http://www.ijser.org>
- Barak, M. (2016). Science Teacher Education in the Twenty-First Century: a Pedagogical Framework for Technology-Integrated Social Constructivism. *Research in Science Education*, 47(2), 283-303. <http://doi.org/10.1007/s11165-015-9501-y>
- Batool, A., Kazmi, H., Islam, R., & Nawaz, M. (2021). Effects of Using ICT in Professional Development. *Merit Research Journal of Education and Review*, 001-005, <https://doi.org/10.5281/zenodo.3620848>

- Ballet, K., & Kelchtermans, G. (2008). Workload and willingness to change: Disentangling the experience of intensification. *Journal of Curriculum Studies*, 40(1), 47–67. <http://doi.org/10.1080/00220270701516463>
- Benmansour, S. (2021). Zoom Sessions in Distant Learning: Algerian EFL Students' Perceptions and Attitudes. *Arab World English Journal (AWEJ) Special Issue on Covid 19 Challenges*.(1) 264-280. DOI: <https://dx.doi.org/10.24093/awej/covid.20>
- Chesley, N. (2014). Information and communication technology use, work intensification and employee strain and distress. *Work, Employment & Society*, 28(4), 589–610. <http://doi.org/10.1177/0950017013500112>
- Creswell J. W., & Creswell, J. D. (2018). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications, Inc.
- Currie, J., & Eveline, J. (2011). E-technology and work/life balance for academics with young children. *Higher Education*, 62(4), 533–550. <http://doi.org/10.1007/s10734-010-9404-9>
- Deepti, D., & Chandraka, K. M. (2021). A Study of Impact of Online Education on Mental Health and Academic Performance of Children of Project Affected People Studying at Undergraduate Level in Navi Mumbai, 11(4). *revista GEINTEC Gestao, Inovacao e Tecnologias*
- Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers and Education*, 59(2), 423–435. <http://doi.org/10.1016/j.compedu.2012.02.001>
- Fernández-Cruz, F. J., & Fernández-Díaz, M. J. (2016). Los docentes de la Generación Z y sus competencias digitales [Generation Z's Teachers and their Digital Skills]. *Revista Comunicar*, 24(46), 97–105. <http://doi.org/10.3916/C46-2016-10>
- García-Valcárcel, J., & Mena, A. (2021). “In-service teachers' use of ICT for the promotion of collaborative professional learning”, *Research anthology on facilitating new educational practices through communities of learning*. 287-301, <https://doi.org/10.4018/978-1-7998-7294-8.ch015>
- González-Sanmamed, M., Sangrà, A., & Muñoz-Carril, P. C. (2017). We can, we know how. But do we want to? Teaching attitudes towards ICT based on the level of technology integration in schools. *Technology, Pedagogy and Education*, 26(5), 633–647. <http://doi.org/10.1080/1475939X.2017.1313775>
- Ghounane, N. (2020). Moodle or Social Networks: What Alternative Refuge is Appropriate to Algerian EFL Students to Learn during Covid-19 Pandemic. *Arab World English Journal*, 11 (3) 21-41. DOI: <https://dx.doi.org/10.24093/awej/vol11no3.2>
- Harris, K. J., Harris, R. B., Carlson, J. R., & Carlson, D. S. (2015). Resource loss from technology overload and its impact on work-family conflict: Can leaders help? *Computers in Human Behavior*, 50, 411–417. <http://doi.org/10.1016/j.chb.2015.04.023>
- Harmer, J. (2007). *How to teach English with ICT-second edition*. Pearson Education Limited, Edinburgh Gate, Harlow, Essex, CM20 2JE, England and associated companies through the world. Editorial development by Ocelot publishing, Oxford, with Helena Gomm. ISBN 978-1-4058-4774-2
- Havrilova, L., Oriekhova, V., Beskorsa, O., Churikova-Kushnir, O., & Sofronii, Z. (2021). A survey analysis of art teachers' use of trans-media technology. *Multidisciplinary Journal for Education, Social and Technological Sciences*, 58, p.24 <https://doi.org/10.4995/muse.2021.14875>

- Hidayah, R., Susiani, T., & Salimi, M. (2020). How elementary school teachers use ICT-based learning media?. *Journal of Physics: Conference Series*, 012-015. <https://doi.org/10.1088/1742-6596/1511/1/012015>
- Hrehova, D., & Teplická, K. (2020). The informational communication technology is a tool of global education. *SHS Web of Conferences*, 06-08. <https://doi.org/10.1051/shsconf/20207406008>
- Ismail, B., Azizan, I., & Azman, N. (2013). Teaching via mobile phone: A case study on Malaysian teachers' technology acceptance and readiness. *Journal of Education Online*, 13(5). <https://doi.org/10.9743/jeo>.
- Jena, R. K. (2015). Technostress in ICT enabled collaborative learning environment: An empirical study among Indian academician. *Computers in Human Behavior*, 51, 1116–1123. <http://doi.org/10.1016/j.chb.2015.03.020>
- Joo, Y. J., Lim, K. Y., & Kim, N. H. (2016). The effects of secondary teachers' techno stress on the intention to use technology in South Korea. *Computers & Education*, 95, 114–122. <http://doi.org/10.1016/j.compedu.2015.12.004>
- Kapalygina, I. (2021). Development of information hazard awareness in primary school learners through due structuring of pedagogical activities. *Perspectives of Science and Education*, 10(6) 243-255. <https://doi.org/10.32744/pse.2021.2.17>
- Kent, N., & Facer, K. (2004). Different world? A comparison of young people's home and school ICT use. *Journal of computer assisted learning*, 20(6), 440-455
- Leonard, L. J. (2001). From indignation to indifference: Teacher concerns about externally imposed classroom interruptions. *Journal of Educational Research*, 95(2), 103–109. <http://doi.org/10.1080/00220670109596578>
- Letendre, G. (2017). World Culture, Educational Sociology and the Impact of Information & Communication Technology on Teachers. *The Journal of Educational Sociology*, 60-69. <https://doi.org/10.11151/eds.100.60>
- Livingstone, S. (2012). Critical reflections on the benefits of ICT in education. *Oxford Review of Education*, 38(1), 9–24. <http://doi.org/10.1080/03054985.2011.577938>
- Michaeli, S., Kroparo, D., & Hershkovitz, A. (2020). Teachers' use of education dashboards and professional growth. *The International Review of Research in Open and Distributed Learning*. 61-78. <https://doi.org/10.19173/irrodl.v21i4.4663>
- Negriy, V., & Lagutin, G. (2020). Psychological aspects of digitalization of education. *Safety psychology and psychological safety: problems of interaction between theorists and practitioners*, 199-205, <https://doi.org/10.15862/53MNNPK20-26>
- Oralbekova, A., Begaliev, S., Ortaeva, A., Magauova, A., & Suleimen, M. (2021). Teachers' readiness to use ICT in the conditions of inclusive education. *E3S Web of Conferences*, 07-21, <https://doi.org/10.1051/e3sconf/202125807021>
- Paraskeva, F., Bouta, H., & Papagianni, A. (2008). Individual characteristics and computer self-efficacy in secondary education teachers to integrate technology in educational practice. *Computers & Education*, 50(3), 1084–1091. <http://doi.org/10.1016/j.compedu.2006.10.006>
- Petrova, H. (2016). New functions of teachers when training with information-communication technologies. *New technologies in Physics Education*, 786-790, https://www.researchgate.net/publication/309811744_New_functions_of_teachers_when_training_with_information-communication_technologies.

- Perrotta, C. (2017). Beyond rational choice: How teacher engagement with technology is mediated by culture and emotions. *Education and Information Technologies*, 22(3), 789-804. <http://doi.org/10.1007/s10639-015-9457-6>
- Perienen, A. (2020). Teaching Attitude, Is A Psychological Tendency of Teachers Towards Students, Teaching Process and Relative Teaching. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(6). DOI:10.29333/ejmste/7803
- Rani, R. (2017). ICT (Information Communication Technology) in Teacher Education. *ShikshanAnveshika*, p.7. <https://doi.org/10.5958/2348-7534>.
- Rosen, L. D., & Weil, M. M. (1995). Computer availability, computer experience and technophobia among public school teachers. *Computers in Human Behavior*, 11(1), 9-31. [http://doi.org/10.1016/0747-5632\(94\)00018-](http://doi.org/10.1016/0747-5632(94)00018-)
- Saunders, R. (2013). The role of teacher emotions in change: Experiences, patterns and implications for professional development. *Journal of Educational Change*, 14(3), 303-333. <http://doi.org/10.1007/s10833-012-9195-0>
- Sydorenko, N., Denysenko, V., Borisenko, N., & Hrytsenko, I. (2020). Formation of professional competencies of primary school teachers using ICT. *Revista Tempos e Espaço em Educação*. 1-17, <https://doi.org/10.20952/revtee.v13i32.14965>
- Spivakovska, Y. (2014). Psychological strategy of cooperation, motivational, information and technological components of future humanitarian teacher readiness for professional activity in polysubjective learning environment. *Information Technologies in Education*, 111-121, <https://doi.org/10.14308/ite000474>
- Shakhbanova, Z., & Yarmetov, Z. (2020). Improving the effectiveness of teachers using ICT. *Ekonomika I Upravlenie: Problemy, Resheniya*, 42-50, <https://doi.org/10.36871/Ek.Up.P.R..11.04.008>
- Selivanova, E., Yarychev, N., & Ilyasov, D. (2020). Pedagogical strategy for developing teachers' psychological readiness to exchange knowledge. *International Technology, Education and Development Conference*, 1, 2119-2126, <https://doi.org/10.21125/inted.2020.0663>
- Selwyn, N. (2010). Looking beyond learning: Notes towards the critical study of educational technology. *Journal of Computer Assisted Learning*, 26(1), 65-73. <http://doi.org/10.1111/j.1365-2729.2009.00338.x>
- Tondeur, J., van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2016). Understanding the relationship between teacher's pedagogical beliefs and technology use in education: a systematic review of qualitative evidence. *Educational Technology Research and Development*, 65(3), 555-575. <http://doi.org/10.1007/s11423-016-9481-2>
- Wajcman, J., & Rose, E. (2011). Constant connectivity: rethinking interruptions at work. *Organization Studies*, 32(7), 941-961. <http://doi.org/10.1177/>
- Yu, T.-K., Lin, M.-L., & Liao, Y.-K. (2017). Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. *Computers in Human Behavior*, 71(2), 196-208. <http://dx.doi.org/10.1016/j.chb.2017.02.005>

The Effects of the Covid-19 Pandemic Sequestration Period on Sight Translation Female Students' Academic Performance at King Khalid University

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Abstract

Many alma maters, colleges, graduate schools, and institutes of higher education around the world postponed lecture hall teaching because of the coronavirus disease outbreak and moved on to learning and teaching online. The recent study aims at scrutinizing the effects of the covid nineteen pneumonia epidemic sequestration on the academic performance of sight translation female students at King Khalid University. Also, the study seeks to answer the following main question: has the covid nineteen pneumonia (Covid 19) considerably impacted translation of female students' sight translation achievement?. The purposive sample of the study consisted of (47) female students of sight translation at the Dhahran al-Janoub female student campus, who attended lectures on different days and participated in the study. The main findings of the study revealed that the covid nineteen pneumonia epidemic sequestration might have both positive impacts and adverse effects on translation female students' sight translation achievement.

Keywords: academic performance, the covid nineteen, translation, effect, female students

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Introduction

The covid nineteen pneumonia (Covid 19) was first discovered by Chinese scientists before the end of 2019 in the Chinese city of Wuhan. The coronavirus pandemic outbreaks heavily impacted internationally, regionally, and locally tertiary education. It has also momentously changed teaching and learning processes that regularly occurred face-face before the coronavirus pandemic rapidly swung across the globe and has moved to an online mode via blackboard. Even though a plethora of global research has explored the pedagogical, educational, and social implications of university closures and online learning for university students. In a nutshell, the far-reaching impacts of the COVID-19 pandemic on translation students' achievement in colleges of translation are yet unclear (Moliner, Alegre, Cabedo-Mas, & Chiva-Bartoll, 2021). When investigating these impacts, several reasons must be reflected, as university students, instructors, professors of translation, and deans of the colleges have had to acclimatize to new teaching and learning settings arising from constraints of the coronavirus pandemic outbreaks with little to no further notice.

Students of translation have had to cope with a new educational setting because of health measures that have involved, among other accommodations, online learning combined with in-person learning (mixed), groups of students of translation attending college on different days, limitations on interactions and contiguity among peers and between students and instructors limited or no study trips, and limited access to digital and traditional classroom materials. The current study intends to identify the impact of the covid nineteen pneumonia (Covid 19) on the achievement of female translation students at the Dhahran al-Janoub female student campus.

The recent study proposes to pinpoint if the covid nineteen pneumonia epidemic significantly influences the academic performance of female students of sight translation at the Dhahran al-Janoub female student campus, King Khalid University, in Abha /Saudi Arabia, particularly those attending on different days for maintenance of health purposes, maybe most influenced by these new circumstances. Not being able to participate in college- in the second semester of the 2019–2020 academic year and attending only the first semester in person in the current academic year makes them attractive stratus of studies in the educational field, thus in this research paper, the researchers aim to determine if the covid nineteen pneumonia (Covid 19) has had a significant impact on sight translation female students' academic performance and if it has, the researchers intend to measure the impact and explore the factors that may play an essential role in clarifying the phenomenon.

To attain the objectives defined in the study, consecutive questions were posed :

RQ1: Has the covid nineteen pneumonia (Covid 19) considerably impacted translation of female students' sight translation achievement?

RQ2: If the covid nineteen pneumonia (Covid 19) considerably impacted translation of female students' sight translation achievement, what factors justify this impact?

Review of Literature

Covid Nineteen Pneumonia and the World Context

Covid nineteen pneumonia (Covid 19) is a disease caused by SARS-CoV-2. This disease was first found in late 2019, in a Chinese city named Wuhan. It is one of the more dangerous

diseases in the modern world and appertains to the broader family of (RNA) viruses, causing plagues, from influenza to more severe diseases. The main symptoms of Covid nineteen pneumonia (Covid 19) are fever, dry cough, fatigue, myalgia, shortness of breath, and dyspnoea (Shereen et al., 2020).

In the mid of March, two thousand and twenty, the sudden increase in many international cases took the Director-General of the World Health Organization (WHO) to declare that the outbreak could be described as a pandemic. By then, more than a hundred and eighteen thousand cases had been announced in hundred and fourteen countries, around the world, and four thousand two hundred and ninety-one mortalities had been recorded (Phan et al., 2020).

By the end of March, two thousand and twenty, the World Health Organization of the European Region had become the focal point of the epidemic, reporting over forty percent of international affirmed cases of Covid 19 on April twenty-eighth, two thousand and twenty are sixty-three percent (Bai, et al., 2020, Tang, et al., 2020). Covid nineteen pneumonia (Covid 19) is described by fast transmission and can happen by intimate contact with an ill individual. The details of the illness are developing. Covid nineteen pneumonia (Covid 19) has disseminated speedily from a Chinese city called Wuhan to other parts of the regions around the world, endangering the lives of many people.

Before the end of January two thousand and twenty, the WHO reported health emergencies in the global community and called for combined efforts from all over the world to preclude its rapid dissemination. Subsequently, the World Health Organization announced COVID-19 as " a global pandemic disease".

Covid Nineteen Pneumonia and the Saudi Context

After the World Health Organization (WHO) announcement, countries worldwide, together with the Kingdom of Saudi Arabia, have been reponing and preparing plans to bring the situation under control. Since its verification first case of COVID19, on Monday second of March, two thousand and twenty the Saudi ministry of health has been cautiously and observantly checking the situation and increasing country-specific actions that are in harmony with the guidelines of the World Health Organization (WHO) in connection with the outbreak of Covid nineteen pneumonia Covid 19. (Arab N, 2020; Maghrabi, 2022,).

Also, in Saudi Arabia, Covid nineteen pneumonia (Covid 19) has dramatically changed people's routines. These comprise hanging all domestic, return, and, international flights, shutting all markets and the Kingdom, excluding drugstores and, supermarkets, and shutting down kindergartens, elementary and intermediate schools, secondary schools, colleges, universities, and educational centers. These educational organizations had to shut and substitute all in-person learning and teaching, with learning online until the following (2020–2021) Academic year. Entry visas have been pending, as have prayers at mosques, as well as the two Holy Mosques in Mekkah and Almadina. The Covid 19 impacted university students educationally and socially. It was unparalleled worldwide in the educational area of students in more than a hundred and thirty countries to be out of school or university at the same time, making contradictory feelings of

possibly sorrow, worry, disturbance, or anxiety about their future but also unequivocally in times of doubtfulness (Zitoun,2020).

Previous Studies

There are rare and scarce studies exploring the impact of the covid nineteen pneumonia (Covid 19) pandemic outbreak on university students' academic achievement in general and translation achievement in particular. Hence, the current study is a single and unique study that investigates the impact of the covid nineteen pneumonia (Covid 19) pandemic outbreak on university translation female students' sight translation achievement.

Gonzalez et al. (2020) studied the impact of coronavirus pneumonia on students' performance in tertiary education. The study targets to probe the effect of coronavirus pneumonia sequestration on Spanish students' performance in tertiary education. The study revealed that coronavirus pneumonia sequestration changed students' learning strategies to an extra, constant habit enhancing their performance. Moussa, et al. (2022) conducted a study entitled "exploring the relationship between students' academic success and happiness levels in the higher education settings during the lockdown period of COVID-19". The study aimed to measure the level of happiness among higher education students and its relationship with their academic success during the lockdown period of COVID—19. The study revealed that higher education students in the UAE have high levels of happiness and academic success; the students' happiness levels were found to be correlated to their academic success.

Alemany-Arrebola, Rojas-Ruiz, Granda-Vera, and Mingorance-Estrada(2020) have carried out a study on the effect of COVID-19 on the cognizance of personal academic efficacy, state of distress, and tendency to feel anxious among university students. The study seeks to investigate the connection between perceived personal effectiveness and usefulness during the Covid nineteen pneumonia epidemic sequestration period and the level of state of stress and tendency to feel anxious during coronavirus sickness. The findings of the study showed that there was a contrariwise proportionate relationship between anxiety and personal efficacy. Male students indicated the highest perception of personal effectiveness, while female students had higher scores in the state of distress, and a tendency to feel anxious; the latter was highlighted in cases when a near relative or far relative passed away.

Aguilera-Hermida (2020) undertook a study on undergraduate students' utilization and consent of emergency studying online because of novel coronavirus illness. The study examines university students' views of their acceptance, usage, and adoption of emergency checking online. The findings showed how, perspective, motivation, encouragement, self-motivation, personal efficacy, and utilization of innovative technology played a more significant role in the cognitive commitment and educational achievements of students.

Al-Marroof, Salloum, Hassanien, and Shaalan(2020) completed a study about anxiety from coronavirus sickness lockdown and adaptation of technologies: the influence of Google Meet during coronavirus outbreak. The study explored the effect of stress and pressure on students' and teachers' adaptation to technology during the coronavirus pandemic. The results revealed that both data analysis techniques have successfully provided support to all the hypothetical and assumed

relationships of the research model. Alqahtani (2022) conducted a study that examined Saudi female students' awareness of word-formation procedures about the terminology of unknown coronavirus. The study attempts to study the acquisition of word-formation procedures appertaining to the terms of novel coronavirus pneumonia. The results revealed that the percentages of wrong or incorrect answers were higher than true ones, thus proposing that the students were not conversant with word-formation processes. The findings showed comparable results in words shaped through combining and commingling, signifying they failed to distinguish between the two methods.

Alwazna,(2021) had undertaken a study on teaching translation during a coronavirus pandemic. The study focuses on translation teaching during the coronavirus pandemic and tries to find the challenges translation instructors meet in distance learning and the solutions obtainable to untangle them. The data indicated that 40% of the participants evaluated their networked translation teaching encounter during the coronavirus pandemic as congenial. On the contrary, no participant has assessed their networked translation teaching experience as unsatisfactory. About 23.33% of the participants judge their networked translation teaching experience as very good, and the same percentage applies to those who evaluate their networked translation teaching experience as good to a certain extent.

Alghamdi (2021) studied the impact of coronavirus disease on the social measurement and educational aspects of Saudi university students' academia. The study investigated the effect of coronavirus disease on the social extent and size, and academic elements of Saudi university students' lives. The results displayed high to lower levels of agreement concerning Saudi university students' perceptions of the positive and negative influence of the coronavirus pandemic in their lives, with social elements influenced more than educational, and intecullaul ones; and no statistically significant sex differences. Moliner et al. (2022) carried out a study on the coronavirus pandemic's impact on 9th-grade pupils' mathematics achievement". The study purposed to scrutinize the effect of the covid nineteen epidemic on 9th-grade pupils' mathematics achievement. The findings of the study revealed that the coronavirus pandemic might be considerably and negatively impacting 9th-grade pupils' mathematics achievement. Moreover, it has been suggested in previous studies that student academic achievement might diminish or enhance considering, the educational shifts and the psychological factors connected with the Coronavirus disease (COVID-19) pandemic that has impacted students.

To conclude, the aforementioned previous studies discussed the effect of the coronavirus pandemic on the educational achievement of college students during the epidemic confinement. But in this study, the researchers want to explore the impact of the covid nineteen pneumonia (Covid 19) pandemic confinement on female translation students of sight translation performance. This study was conducted at the Department of English, Dhahran al-Janoub female students' campus, King Khalid University, Abha /Saudi Arabia, during the second term of the academic 2020/2021.

Methods

Study Design

A quantitative approach is employed by the two researchers for probing the effects of the Covid-19 pandemic on sight translation female students' academic performance at King Khalid University. The quasi-experimental approach is used following both pre-and post-test groups for evaluating the female students' sight translation performance.

Participants

About forty-seven translation female students of sight translation at the Department of the English, Dhahran al-Janoub female students' campus, King Khalid University, were randomly selected and assigned to one control group and one experimental group. These students enrolled for the sight translation course during the 2019–2020 academic year served as the control group. These students attended the first semester of the 2019–2020 Academic year (August to December) regularly; the COVID-19 pandemic lockdown in the Kingdom of Saudi Arabia aligned with the launch of the second term. Therefore, only sight translation female students' translation achievement for the first semester (before the start of the epidemic) was analyzed. Students enrolled in level 6 in the semester (2020–2021) academic year—that is, those enrolled in level six during the COVID-19 pandemic—served as the experimental group. The sight translation professors recorded the daily lectures, uploaded them to the blackboard as synchronous and non-synchronous lectures, and shared a private link via email with students. Hence, the content was immediately available to them on the days they did not attend class in person. They could watch the course live or view it later that day, as the session was recorded and permanently available to students. It was the students' duty to share files, videos, and surveys, (AlKarani, et al., 2020) and watch the lectures on the blackboard on the days they did not attend college in person.

Study Variables

The independent variable included in this study was synchronous and non-synchronous lectures and in-person sight translation classes. The dependent variable included in this study comprised the sight translation achievement of translation students at king Khalid university.

Research Instrument

The sight translation test was carried out to assess the translation performance of the female students. This includes the mean score of the students and individual scores. The test was comparable with a performance test where the female students were asked to render the given text into English and vice versa.

Data Analysis

The same professor of sight translation who taught the batch of female students of sight translation in the control group, in 2019–2020 also taught the same female students of sight translation in the experimental group in 2020–2021. Female students of sight translation in the control group were taught regularly. They took in-person sight translation classes three times per week. Traditional unidirectional instruction was combined with peer tutoring for some weeks for this group (Moliner & Alegre, 2022). Female students of sight translation in the experimental group attended a sight translation class on a different day. Therefore, each week, of the three sight translation lessons that would usually be provided to them in person, two were accessed via the blackboard (on the days the translation students stayed home and the other group attended in

person). During the classes of the experimental group, traditional unidirectional instruction was employed. The female Students of sight translation sat individually separated by two meters on account of interpersonal distance measures. Translation female students' sight translation performance was evaluated by dint of individual written sight translation tests. Students in the experimental and control groups took the same test of rendering a text from English/Arabic/English at the end of the first semester. The sight translation test was graded from 0 to 20, and each student's score for this test was used to represent their sight translation achievement.

Results

Data Analysis SPSS version 27 was utilized by the two researchers to carry out all assessments for the quantitative data, that is, for the female students' sight translation achievement variable. Means and standard deviations were reported using this software. Moreover, inferential statistics were performed to compare the sight translation achievement of the experimental and control groups. The sight translation student's test was used for these analyses.

Table 1: *scores of the control group and the experimental group*

Group type	Number	Mean	Std. dev	T-test	Sig
Control	18	1.50	8.30	2.90	
Experimental	29	6.50	2.65	2.60	(p < .01)

As can be seen in the table with the unassisted eye, the scores for the control group of sight translation students (before the Covid Nineteen Pneumonia (Covid 19) Pandemic Confinement) were considerably more than the scores for the experimental group of sight translation female students (during the Covid Nineteen Pneumonia (Covid 19) pandemic confinement) in all cases.

Discussions

To answer research question 1: Has the covid nineteen pneumonia (Covid 19) considerably impacted translation female students' sight translation performance?, it appears the covid nineteen pneumonia (Covid 19) pandemic confinement has had an important impact on translation students' sight translation achievement at King Khalid University. As stated in the introduction of the current paper, the literature on this subject is still rare. Still, some recent studies have already indicated findings similar to the results of this research paper. Even though not particularly in the field of translation in general and sight translation in particular, the considerable decrease in students' academic achievement during the COVID-19 pandemic has also been reported by some researchers such as Moliner, et al., (2022), Alghamdi (2021), Alwazna, (2021) and Gonzalez, et al. (2020). Consequently, the reduction in students' sight translation achievement found in the current paper study is too similar to studies in teaching and learning in general and translation teaching and learning in particular.

To answer research question 2: If the covid nineteen pneumonia (Covid 19) considerably impacted translation students' sight translation performance, what factors justify this impact? The key factors that can clarify the effect that the Covid Nineteen pneumonia (Covid 19) pandemic confinement has had on translation students' sight translation achievement are changes in educational environments, students' low motivation, humdrum, and students' degree of

accountability. Finally, the current research showed that psychological factors play a significant role, either directly or indirectly, in students' academic achievement.

Conclusion

The significant finding that can be excluded from this study is that the covid nineteen pneumonia (Covid 19) pandemic may be having a considerable and negative impact on translation students' sight translation achievement. The dimension of that impact may be average to high. Institutional alterations in the educational context, absence of motivation outside the university of college, humdrum, and students' absence of accountability may be caused that justify this phenomenon. The SPSS analysis showed the negative influence of the coronavirus sickness epidemic on translation female students' sight translation achievement. A posttest only with a control group design was employed by the researchers to compare the sight translation scores of translation students from the previous academic year (before the pandemic, control group) and the current academic year (during the pandemic, experimental group). Forty-seven female students of sight translation at the Department of the English, Dhahran al-Janoub female students' campus, attending lectures on different days, took part in the study. The main findings of the study revealed that the COVID-19 pandemic might be significantly and negatively impacting translation female students' sight translation achievement.

Implications of the Current Study


Despite the fact that this study was carried out in Abha, King Khalid University, Aseer Region, Southern Saudi Arabia, which had a lot of novel coronavirus disease cases the same as other regions in Saudi Arabia, and the most prolonged period of blackouts through the covid-19 outbreak, the findings may be identical to global researches that proposed some positive effects closely related to the novel coronavirus infection pandemic. It emphasizes the demand for continuous research to identify how different academic communities can build on the positive aspects of students that have popped out to answer these novel virus outbreaks. These positive effects showed the pivotal role played by information and communications technologies and internet technology in minimizing the adverse effects throughout the period of the corona pandemic. They have opened up a world of learning and teaching and offered opportunities for teachers, and learners, giving them a chance to communicate, collaborate and create. However, these findings showed a pressing need for technologies to be evolved to make sure they are in harmony with what users expect and require in their social and academic lives through turning points or crises.


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References

- Aguilera-Hermida, A.P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*, 1.7 <https://doi.org/10.1016/j.ijedro.2020.100011>
- Aleman-Arreola, I., Rojas-Ruiz, G., Granda-Vera, J., & Mingorance-Estrada, Á. C. (2020). Influence of COVID-19 on the perception of academic self-efficacy, state anxiety, and trait anxiety in college students. *Frontiers in Psychology*, 11, 1-7. <https://doi.org/10.3389/fpsyg.2020.570017>
- Alghamdi, A. A. (2021). Impact of the COVID-19 pandemic on the social and educational aspects of Saudi university students' lives. *PLoS One*, 16(4). <https://doi.org/10.1371/journal.pone.0250026>
- AlKarani, A. S., & Thobaity, A. A. (2020). Medical staff members' experiences with a blackboard at Taif University, Saudi Arabia. *Journal of multidisciplinary healthcare*, 13, 1629-1634. DID: [10.2147/JMDH.S287389](https://doi.org/10.2147/JMDH.S287389)
- Al-Marouf, R. S., Salloum, S. A., Hassanien, A. E., & Shaalan, K. (2020). Fear from COVID-19 and technology adoption: the impact of Google Meet during Coronavirus pandemic. *Interactive Learning Environments*, 1-16. <https://doi.org/10.1080/10494820.2020.1830121>
- Alqahtani, S. M. (2022). Investigating Saudi Female Students' Familiarity of Word-Formation Processes Related to COVID-19 Pandemic Terminology. *Arab World English Journal*. 135-143. <https://dx.doi.org/10.24093/awej/covid2.9>
- Alwazna, R. Y. (2021). Teaching translation during COVID-19 outbreak: challenges and discoveries. *Arab World English Journal (AWEJ)* 12 (4), 86-102. <https://dx.doi.org/10.24093/awej/vol12no4.6>.
- Arab, N. (2020). Saudi Arabia Announces First Case of Coronavirus. *Arab News*. Available at <https://www.arabnews.com/node/1635781/saudi-arabia>
- Bai, Y. et al (2020). Presumed asymptomatic carrier transmission of COVID-19. *Jama*, 323(14), 1406-1407. doi:10.1001/jama.2020.2565
- Gonzalez, T. et al (2020). Influence of COVID-19 confinement on students' performance in higher education. *PloS one*, 15(10), 1-35. <https://doi.org/10.35542/osf.io/9zuac>.
- Lee, J., Finn, J., & Liu, X. (2019). Time-indexed effect size for educational research and evaluation: Reinterpreting program effects and achievement gaps in K–12 reading and

- math. *The Journal of Experimental Education*, 87(2), 193-213. <https://doi.org/10.1080/00220973.2017.1409183>
- Maghrabi, R. (2022). A Phonological-Pragmatic Analysis of the Saudi Ministry of Health Official Spokesperson's Speech on COVID-19. *Asian Journal of Language, Literature and Culture Studies*, 5(1), 1-17. Retrieved from <https://journalajl2c.com/index.php/AJL2C/article/view/30170>
- Moliner, L., Alegre, F., & Lorenzo-Valentin, G. (2022). The COVID-19 Pandemic's Impact on 9th Grade Students' Mathematics Achievement. *The COVID-19 Pandemic's Impact on 9th Grade Students' Mathematics Achievement*, 11(2), 835-845. [10.12973/EU-jer.11.2.835](https://doi.org/10.12973/EU-jer.11.2.835)
- Moliner, L., Alegre, F., Cabedo-Mas, A., & Chiva-Bartoll, O. (2021). Social wellbeing at school: Development and validation of a scale for primary education students. *Frontiers in Education* 6, 1-9. <https://doi.org/10.3389/educ.2021.800248>.
- Moussa, N. M., & Ali, W. F. (2022). Exploring the relationship between students' academic success and happiness levels in the higher education settings during the lockdown period of COVID-19. *Psychological Reports*, 125(2), 986-1010. doi.org/10.1177/0033294121994568
- Phan, L. et al. (2020). Importation and human-to-human transmission of a novel coronavirus in Vietnam. *New England Journal of Medicine*, 382(9), 872-874. DOI: [10.1056/NEJMc2001272](https://doi.org/10.1056/NEJMc2001272)
- Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Emergence, transmission, and characteristics of human coronaviruses. *Journal of advanced research*, 24, 91-98. DOI: [10.1016/j.jare.2020.03.005](https://doi.org/10.1016/j.jare.2020.03.005)
- Tang, et al. (2020). Prevention and control strategies for emergency, limited-term, and elective operations in pediatric surgery during the epidemic period of COVID-19. *World Journal of Pediatric Surgery*, 3(1). *Pediatric Surgery*, 3(1), 1-7. <http://dx.doi.org/10.1136/wjps-2020-000122>

Integrating Mobile Games in Arabic Orthography Classrooms

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Abstract

Considerable advances in the capabilities of modern mobile devices have enabled their use as powerful educational tools. Today, mobile learning games are widely used as creative platforms for teaching and learning, offering enjoyable and ubiquitous educational content. This study describes the design and evaluation of a mobile Arabic orthography game aimed at improving Arabic orthographical skills among young learners. In particular, 52 female fourth-grade students participated in this study to answer the following research questions: what impact does the use of mobile Arabic orthography games have on students' performance, and how do students perceive this learning approach? A mixed-method research design was adopted to answer these research questions, including pre-and post-tests, interviews, and classroom observations. Analysis of the data revealed that, although there were a few challenges involved in using mobile games as a learning tool, significant improvements were found in students' performance and engagement, and positive attitudes were developed towards using the mobile game. In addition, there was an overall increase in students' motivation and interaction. The pedagogical implications of these findings can be linked to the gamification of the teaching and learning environments. Teachers are encouraged to consider integrating mobile educational games into their instructional approaches, as they can serve as great incentives to learning (especially for young students).

Keywords: Arabic orthography, language teaching and learning, mobile-assisted language learning, mobile games

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Introduction

Mobile games have become essential tools for young learners in the 21st century (Prensky, 2001). These digital-native learners have become accustomed to using touchscreen devices from an early age. This has allowed them to develop a unique set of abilities, such as the abilities to exercise control and to manage planning and problem-solving tasks (Grose, 2013; Sharkins, Newton, Albaiz, & Ernest, 2015; Papadakis, & Kalogiannakis, 2017). According to Cohen, Hadley, and Frank (2011), children younger than two years can use mobile devices; they can interact naturally with a touchscreen as they would instinctively play with a new toy (Sharkins et al., 2015). Similarly, Grose (2013) found that two- to five-year-olds can manipulate apps more capably than they can tie their shoelaces or ride bikes. However, many researchers believe that this scenario has created a worrying gap between the expectations of young learners and what they find in traditional classrooms (Furió, Juan Vivó, 2014). It has also been argued that game-based learning constitutes a more practical approach to teaching and motivating young learners (Furió et al., 2014, Prensky, 2001; Chang et al., 2007). According to Chang et al. (2007), game-based learning refers to any educational method that embeds instructional materials or learning designs within the activities of a digital game to engage learners in simple tasks or complex problem-solving activities. However, mobile learning games have not been sufficiently explored, and there is a strong need for more empirical studies on the impacts of these games on teaching and learning (Chen, Cheng, & Hao, 2019; Booton, Hodgkiss & Murphy, 2021). Hence, in this study, we describe the design and evaluation of a mobile Arabic orthography game for improving Arabic orthographic skills among young learners. Our study poses the following research questions:

- RQ1: What impact does the mobile Arabic orthography game have on the performance of elementary school students?

- RQ2: How do Arabic elementary school students perceive this learning approach?

The remainder of this paper is organized as follows. The following section explores the literature on the use of mobile games in language learning, followed by a description of the study's design and procedures. Then, the results of this study are reported and discussed. Finally, we present the research implications and conclusions, along with suggestions for future work

Literature Review

Mobile Learning Games

Mobile learning games have been shown to have significant impacts on language learning. Mobile learning games have gained considerable popularity among young learners in recent years, and many researchers believe that such games can enhance the teaching-learning environment (Yamato, Corrêa, & Martins, 2017; Chaves et al., 2018; Bhide et al., 2019; Vanbecelaere et al., 2019; Juhani Lyytinen, Semrud-Clikeman, Pugh & Richardson, 2021; Alotaibi, & Alharbi, 2022; Amorim et al., 2022). According to Johnson et al., (2013), mobile learning games significantly promote engagement, creativity, and authentic learning. Other studies, e.g., Lameris et al. (2016) and Bartram, Bradley and Al-Sabbagh, (2018) have indicated that mobile technology encourages informal and incidental learning, and that these can occur without being intended or planned. According to Bartram et al. (2018), "this is what happens in everyday life in activities that are not traditionally designed as learning events, such as engagement in leisure pursuits or social interaction, which nevertheless create opportunities for language acquisition."

For example, Acquah, and Katz, (2019) conducted a systematic literature review of research on the effectiveness of digital games as learning tools. They considered studies conducted between 2014 and 2018 focusing on students aged 6–18 years. The researchers in the surveyed studies found that digital games can effectively promote language acquisition, contemporary competencies, and participatory behavior. Their findings also revealed six features of digital games that positively impact outcomes: ease of use, challenges, rewards and feedback, control or autonomy, goal orientation, and interactivity. The researchers concluded that digital games could be effective teaching and learning tools. However, they encouraged further research to explore the successful implementation of digital games in classrooms. Zaibon and Shiratuddin (2010) argued that the following learning theories must be used to support active mobile learning games: behaviorism, which focuses on providing the learner with reinforcement and control by providing effective feedback; cognitivism, which facilitates and supports the transference, remembrance, and recollection of knowledge; and constructivism, which provides learners with opportunities to explore and acquire knowledge according to their needs.

Mobile Games and Young Learners' Orthography Skills

Several studies (Yamato et al., 2017; Chaves et al., 2018; & Wijaya, 2018; Juhani et al., 2021; Amorim et al., 2022) have examined the impacts of mobile game use on young learners' orthography skills, and have reported significant performance improvements among learners and positive attitudes towards the use of these games. Yamato et al. (2017) designed a mobile game named "AmarganA" to enhance players' knowledge of Portuguese orthography. The learners' task was to shuffle letters until they found the correct spelling. Ten elementary school students evaluated the game, and the results indicated that the game could promote Portuguese language learning and stimulate creativity. Similarly, Chaves et al. (2018) explored an educational game developed to aid in the learning and teaching of the accent and hyphen rules of a new Portuguese orthographic agreement. The game-based approach effectively enhanced student engagement and motivation. In another study, Adi et al. (2018) incorporated a spelling game into English vocabulary lessons for 50 kindergarten students divided into four small classes. Their data analysis revealed that the students positively perceived this teaching approach, and were motivated and engaged in class activities. However, no evidence has been provided regarding the impacts of mobile games on student performance. Bhide et al. (2019) created a mobile game to teach fourth-grade students Hindi decoding skills, emphasizing the complex Akshara orthography used in Indian languages. They noted improved recognition skills and abilities in reading and spelling words containing the complex Akshara orthography for the students. Furthermore, the students successfully provided correct answers when the game progressed more quickly.

For young Arabic learners, further exploration of this topic is required, because there are a limited number of studies on game-based learning. Alsswey, Al-Samarraie, El-Qirem, and Zaqout, (2020) collected and analyzed 31 research papers published between 2010 and 2018 to explore research on students and instructors' use of mobile learning in the Arab Gulf countries. They found that these studies primarily considered mobile learning service accessibility, and argued that "a wider view about the influence of engaging students in mobile learning activities on their learning performance is needed" (Alsswey et al., 2020).

Indeed, only a few studies have examined the use of mobile learning games to improve students'

Arabic skills (Erradi, Nahia, Almerkhi, & Al-kailani, 2012; Karkar, Al Ja'am, Foufou & Sleptchenko, 2016; Alobaydi, Alkhayat, Arshad & Ahmed, 2017; Al-Khalifa, Faisa & Al-Matham, 2018; Al-Razgan & Alotaibi, 2019). Erradi et al. (2012) described the design and development of a multimedia mobile learning platform named "ArabicTutor" to aid in the teaching and learning of Arabic spelling and vocabulary. This game provided users with a list of words and their definitions, sample sentences, and multimedia illustrations. The program also provided other related linguistic and morphological information, such as explanations of the parts of speech of sample sentences. However, the proposed system was not evaluated, and the effectiveness of ArabicTutor insofar as language skill improvement was not tested.

Karkar et al. (2016) developed an Arabic-based mobile educational system for automatically generating illustrations of Arabic stories through text processing while providing Arabic educational ontology, general knowledge, and relationship extraction using online search engines. The system was evaluated for 20 children between nine and 10 years of age, classified according to four different levels. The reading time in seconds and number of correct answers were determined for the evaluation. Users who spent more time reading and accessing images generated by the system tended to achieve higher scores. The researchers concluded that their system improved the students; learning capabilities, memorization skills, communication, and understanding. Alobaydi et al. (2017) designed a prototype for a context-aware ubiquitous mobile learning game called "U-Arabic." This study aimed to enhance Arabic vocabulary acquisition among Malaysian children. The researchers evaluated their prototype by conducting a two-week pre-and post-test experiment involving 20 students in an elementary school in Malaysia. They administered a questionnaire to explore participants' attitudes towards learning using a mobile game, and revealed improved learning among the students. Despite the limited number of participants and short duration of the evaluation process, the researchers argued that mobile games could successfully attract students' attention towards learning, and motivate them to focus on vocabulary learning.

In Saudi Arabia, where Arabic is the native language, Arabic reading and writing are taught from the first grade until the end of the sixth grade. During the first three years of elementary school, students are taught how to write and pronounce Arabic letters. They write two-letter and three-letter words until they can eventually write complete sentences. Arabic orthography consists of 12 levels; these are taught to students both directly and indirectly by focusing on correct handwriting. When students reach third grade, they are expected to be able to read and write a simple paragraph. Arabic language teachers usually review previous orthographic rules to ensure mastery before introducing new rules. The traditional instructional approaches used to teach orthography involve explaining orthography rules and extracting samples from passages, followed by oral dictation. Among other methods, students are given a list of words and asked to form complete sentences. However, traditional instructional approaches are usually criticized as ineffective (Abu-Rabia & Taha, 2013; Brosh, 2015).

The number of mobile games designed explicitly for native Arabic speakers is limited. Faseeh is a popular mobile game targeting Arabic learners developed by Al-Khalifa et al. (2018). It assists Arabic speakers in acquiring word synonyms to enhance their linguistic and expressive abilities. Al-Khalifa et al. (2018) evaluated the game by assessing player satisfaction through an evaluation

survey of the user experience and game design. Although the survey revealed a positive overall evaluation, no empirical research has been conducted to investigate the effectiveness of the game in enhancing students' linguistic and expressive skills. Al-Razgan et al. (2019) reported developing and evaluating a personalized mobile language learning system named "Afaneen" for teaching and improving spelling. Their game involved a practical component in which learners could practice a specific spelling rule, along with a component in which learners played a spelling game and recorded their progress. The researchers tested the system in a class of six male third-grade students in a Saudi elementary school using two evaluation approaches: a holistic test case scenario, and an in-class testing session. Data gathered through observations and interviews indicated an overall positive attitude towards the system. However, the researchers acknowledged the small sample size, and suggested that the study validity could be enhanced by testing the game's impact on student performance in a larger group of learners.

In a study conducted during COVID-19, Al-Jarf (2021) examined the differential effects of mobile devices on L1 and L2 learning among Saudi children. The study included 78 parents and 118 children. The children were grouped into 1–6 years old (young children in kindergarten and preschool), 7–9 years (grades 1–3), and 10–12 years (grades 4–6). The survey results showed that the iPad was more effective in helping the young children with language learning than the older children in grades 1–3 and 4–6, respectively. The older children mainly used iPads to play games and watch movies. The researcher concluded that mobile devices can help children focus on and engage in learning because the apps are interactive and use color, animation, audio, and video. The researcher recommended integrating reading story apps into the reading curricula at schools to familiarize students with these apps and encourage them to read at home.

The literature review presented above highlights the strong need for additional empirical studies investigating the effectiveness of mobile learning games in improving Arab students' orthography skills, especially for young Arab learners. Therefore, this study aimed to describe the development and evaluation of a mobile Arabic orthography game designed to improve Arabic orthographic skills among young learners. Through this research, we examined at (1) the impact of the mobile Arabic orthography game on the performance of elementary school students and (2) how they perceived this learning approach.

The study results are expected to shed light on the pedagogical implications of mobile games and impacts of integrating these tools into instructional approaches, especially for young students. The following section describes the development of the mobile game used in this study and its design and procedures.

Methodology

This study aimed to investigate the impact of a mobile Arabic orthography game on student performance, and to examine the perceptions of this learning approach. A mixed-method research design was adopted to address these research aims, along with a one-group pre-test/post-test design. According to Allen (2017), this type of research design "is most often used by behavioral researchers to determine the effect of a treatment or intervention on a given sample." This research design has two main features: (1) there is a single group of participants, i.e., all participants are subjected to the same treatments and assessments, and (2) linear ordering is used in the assessment,

i.e., testing is performed before and after treatment. In this study, qualitative data collection methods such as classroom observations and participant interviews were also incorporated. The following subsection describes the Arabic orthography game used in this study and its procedures.

Arabic Orthography Game

The study used Alemla Almotqan (“Perfect Spelling”), a mobile game designed by Al-Razgan et al. (2019) with the assistance of expert Arab language instructors, to enhance Arabic orthographic skills through an error-discovery approach (see Figure 1).

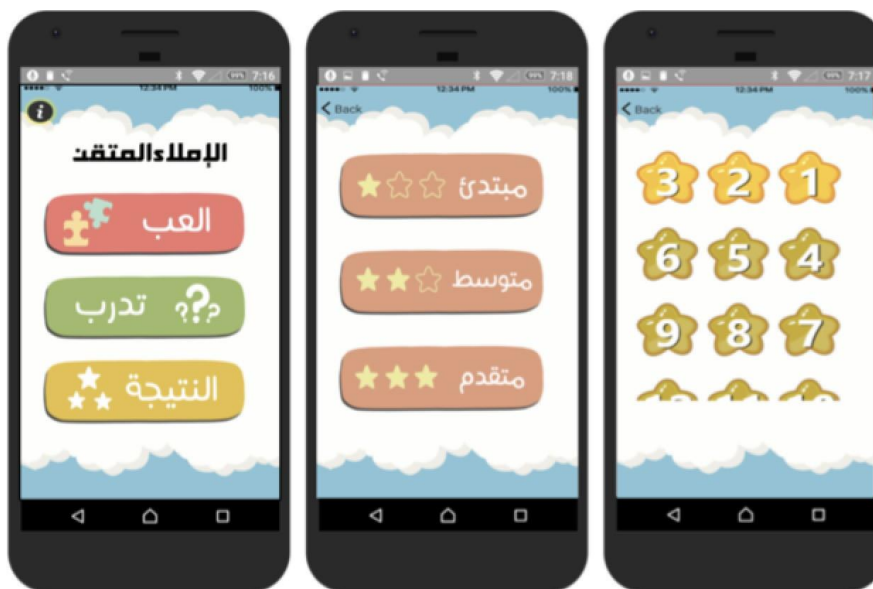


Figure 1. Mobile game interface

The instructional content of the game (i.e., the text and orthography rules) was adapted from the Arabic books used in the Saudi elementary school curriculum, and was revised by three expert Arabic language instructors with more than 15 years of experience. To personalize the game towards individual student abilities, a genetic algorithm (GA) approach was adopted in designing the game. The GA was first introduced in 1962 (Back, T., Hammel, U., & Schwefel, H. P., 1997), and can be defined as a heuristic search method used in artificial intelligence and computing to find "optimized solutions to search for problems based on the theory of natural selection and evolutionary biology" (Bheemaiah, 2017). The GA searches for the best query result among large and complex datasets, targeting and presenting the best solution unknown beforehand (Prensky, 2001; Crompton, H., Burke, D., & Gregory, K. H., 2017). The app was designed as a single-player, real-time mobile game. The game algorithm checks the input and outputs the corresponding pop-up menu for the correct input (Al-Razgan et al., 2019). The game allows for certain actions, as follows. First, game initialization occurs (no log-in is required). Then, the user can select between “play” and “practice” options through the main game interfaces, as shown in Figure 1 (left). The “practice” option helps students practice and improve their Arabic orthography before playing to enhance their confidence. When “play” or “practice” is selected, a window appears showing three levels: beginner, intermediate, and advanced (Figure 1 (center)). After the student selects the

appropriate level, he/she is prompted to select a sub-level, as shown in Figure 1 (right). Each stage consists of 12 levels. When the student completes a sub-level, the color of the corresponding star changes to gold. The student can choose an appropriate level, or is automatically moved to the next sub-level. At each sub-level, text is displayed, and the timer starts. In the beginner and intermediate levels, a spelling rule is displayed as a hint, as shown in Figure 2 (left). Next, the student must read the text and identify any misspelled words on the touch screen. A pop-up menu with three possible corrections is presented to the student, as shown in Figure 2 (center). The student must choose the correct answer, as shown in the text (Figure 2 (center)). Once the student presses “next,” based on his/her time performance and ability to identify all of the misspelled words, he/she is moved to the next level; correspondingly, the timer and number of misspelled words are adjusted (Figure 2 (center)). The student can view his or her score or quit the game at any point, as shown in Figure 2 (right). The chart shows correct and incorrect answers in green and red, respectively.

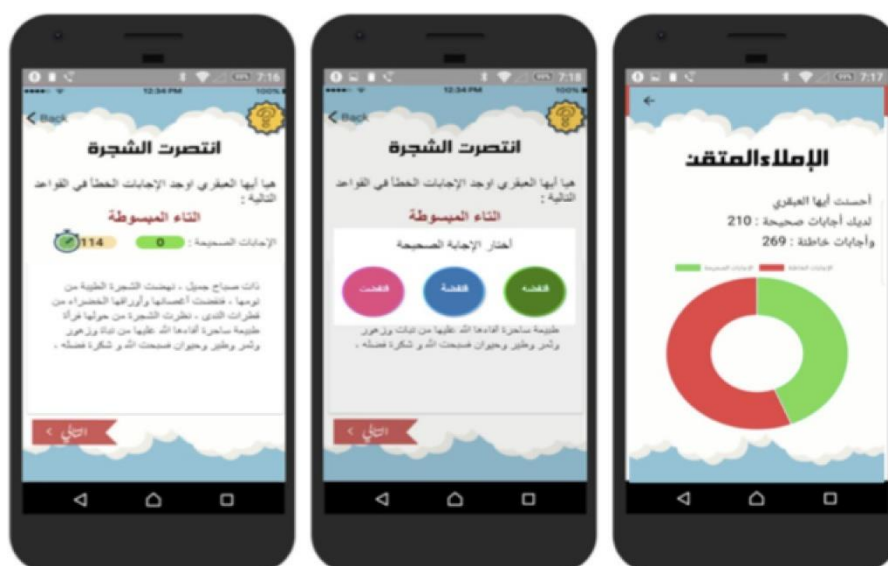


Figure 2. Mobile game interface

The GA approach is implemented to automatically adjust the number of misspelled words in each text and time limit based on students' performance. Specifically, if the student manages to find all misspelled words within a given time limit when they touch "next," the game automatically increases and decreases the number of misspelled words and time frame, respectively. In contrast, if the student fails to identify all misspelled words in the text within a specific timeframe, the game automatically reduces the number of misspelled words in the text and allocates additional time to the student. Several players piloted the game during the design phase. Ultimately, the timeframe was set to a maximum of 120 seconds, and the number of misspelled words was set between 3 and 15 to accommodate various student needs. No login was required at this stage. It is hoped that a log-in will be implemented in phase 2 of the game, where we can link the game to a server to enable teachers and administrators to monitor students' progress. For more details on the game implementation and design, see Al-Razgan et al. (2019).

Participants

In this study, the participants 52 female fourth-grade public school students aged 9–11 years. In Saudi Arabia, children enroll in public schools at the age of six years, and spend six years at the elementary level. Every school year consists of two semesters, each with at least 15 weeks of classes and a two-week examination period. The daily elementary school schedule has six 45-minute classes. Boys and girls from separate schools study the standard curriculum. Saudi primary education aims to provide general education and to enhance basic literacy and numeracy skills. Arabic reading and writing are taught from first grade until the end of sixth grade. Arabic orthography consists of 12 levels. These are taught to students both directly and indirectly by focusing on correct handwriting. When students reach third grade, they are expected to be able to read and write a simple paragraph.

Arabic language teachers usually review previous orthography rules to ensure mastery before introducing new rules. The traditional instructional approaches used in orthography teaching involve explaining orthography rules and extracting samples from a passage, followed by oral dictation. Among other methods, students can be given a list of words and asked to form complete sentences. However, traditional instructional approaches, such as textbooks and direct instruction, are usually criticized as ineffective (Abu-Rabia, 2013; Brosh, 2015; Taha, 2013). Therefore, it was hoped that the developed mobile game would provide students with an interactive and motivating learning tool for enhancing their Arabic orthography, i.e., by identifying misspelled words and correcting them in an enjoyable environment.

Procedures

The researchers approached a Saudi public elementary school at the beginning of the semester to obtain the required approval to conduct the study. The research aims and procedures were presented and discussed with the school's administration, who were assured that the collected data would be confidential and only be used for research purposes. After receiving consent from the school administration, two fourth-grade classes were suggested by the school's administration to participate in the study. These classes featured an adequate number of students (52), and were taught by the same teacher using the same instructional material. Next, the parents of the students were contacted to obtain their consent. They were assured that student participation was voluntary and that the data collected during the study would only be used for research purposes. In addition, parental approval was obtained to allow the students to bring their mobile devices to school, and to enable the researchers to take photographs for research purposes.

The researchers then met with the class teacher on several occasions to set up the study and discuss preparations. The classroom teacher had a bachelor's degree in Arabic from the Faculty of Education of a national university and over 20 years of teaching experience. She usually met the students eight times a week. Therefore, we decided to dedicate two of these eight sessions for game use. The study started at week 7 and ended at week 13 with 14 sessions, as shown in Figure 3.

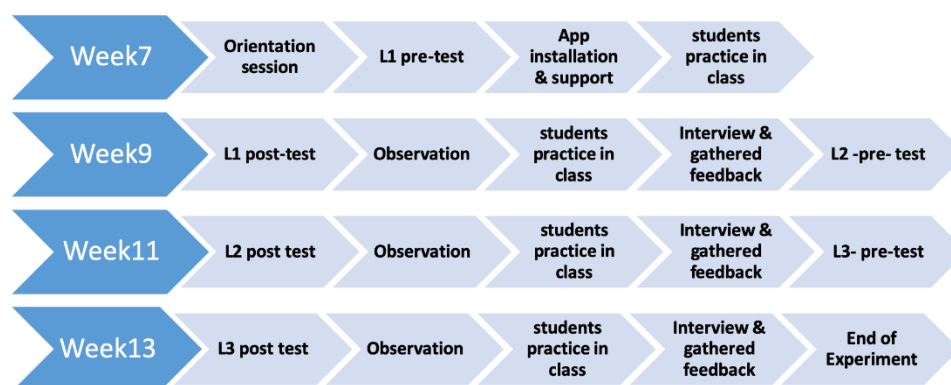


Figure 3. Study procedures

The intervention began in week 7 with an orientation session. The researchers introduced themselves to the students and briefed them regarding the significance of their contributions and expressed their sincere appreciation for their participation. The orientation session also involved describing the game features and how to use them, and assessing the students in installing the game on their devices. The first session involved administering a pre-test to assess the students' performance before introducing the treatment. During the subsequent weeks, the researchers attended the classroom twice a week for observing the teacher and student and providing technical assistance when needed. The students were encouraged to bring their own devices and use them only during the Arabic classes. At the end of each class, the students' devices were collected and kept with the teacher until the end of the school day. The researchers also provided additional devices. Although the students had the chance to choose which level to play, the teacher guided them to select the appropriate level based on the orthography rules covered during each lesson. Because logging in was not required, the students' progress was recorded manually (by the researchers) while using the application in a given lesson. At the end of each session, students were interviewed individually and in groups to discuss their experiences. In the sessions, the teacher usually began by explaining an orthography rule; then, she asked the students to play the game on their mobile devices (individually or in pairs) and to compete to attain the highest number of correct answers (see Figure 4).



Figure 4. Students working on individual and pair tasks

Instruments

The pre-and post-tests were designed and administered with the goal of answering RQ1. As the game featured three orthography skill levels (beginner, intermediate, and advanced), three tests were designed to evaluate the student improvement over each stage, i.e., L1, L2, and L3. Each test included questions designed to assess Arabic orthography, as adapted from the Saudi Arabic language curriculum and revised and validated by three Arabic language instructors. The questions involved identifying and correcting misspelled words in a reading passage and writing the correct sentences. Each test was administered twice during the study, with two weeks between the pre-and post-tests. All participants had to attempt all levels of pre-and post-testing, and were compared statistically. Three instructors scored the pre-and post-tests using a unified rubric. The instructors gave similar scores, indicating an acceptable level of inter-rater reliability. The student scores were then analyzed to detect any skill enhancement at each level. The pre-and post-test scores did not affect the students' final grades.

To answer RQ2, classroom observations and interviews were conducted to collect data. The classroom observations involved note-taking regarding classroom dynamics, interactions, and discourses. After each session, the teachers and students were interviewed individually and in groups to record their views and perceptions. The interviews included questions on students' perceptions of the game and their attitudes towards using it. The classroom observations informed the selection of students for individual interviews. The interviews were semi-structured, as students were asked to describe any difficulties faced in a specific text or particular orthography rule, and/or to describe their feelings during class. By the end of the study, nearly 53% of the students had been interviewed individually at least once. The teacher was asked to elaborate on the challenges faced during class and to provide suggestions or concerns. The participants' responses were recorded and transcribed verbatim immediately after each session to maintain the accuracy of the data. The qualitative and quantitative data analyses and results are presented in the next section.

Data Analysis and Results

To answer the research questions, the data obtained from the pre-and post-tests for all three levels and interviews and observations were analyzed both qualitatively and quantitatively, as discussed below.

Pre- and Post-Tests

For the data analysis, the Statistical Package for the Social Sciences v.23 was used to conduct descriptive and inferential analyses.

The analyses included (1) calculating the means for the post-test and pre-test of the three measurements, (2) calculating the standard deviations to determine the homogeneity of the data for all tests; (3) calculating the dispersion measures (minimum and maximum); (4) performing a paired sample t-test to test the significance of the differences between the post-test and pre-test in the three measurements, and (5) calculating Cohen's d to measure the effect size of the impact of the mobile application on students' performance. The descriptive statistics for all measurements are presented in Table 1.

Table 1. *Descriptive statistics for all measurements*

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
L1_Pre-	1.00	10.00	7.067	2.530	-0.656	-0.539
L1_Post	2.00	10.00	8.259	1.872	-1.416	1.588
L2_Pre-	0.00	10.00	4.375	2.660	0.268	-0.665
L2_Post	3.00	10.00	7.615	2.037	-0.634	-0.673
L3_Pre-	1.00	10.00	5.563	2.451	0.244	-0.595
L3_Post	2.50	10.00	8.288	1.669	-1.120	1.308

The results from paired sample t-test used to test the significance of the differences between the post-test and pre-test in the three measurements are shown in Table 2.

Table 2. *Paired sample test results*

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
L1_Post - L1_Pre-	1.192	2.445	.339	.511	1.873	3.515	51	.001
L2_Post - L2_Pre-	3.240	2.769	.384	2.469	4.011	8.436	51	.000
L3_Post - L3_Pre-	2.725	2.154	.298	2.125	3.324	9.122	51	.000

The results from the paired sample t-test show that there is a statistically significant difference between the post-test and pre-test in the three measurements in favor of the post-test, which has a higher mean score ($p < 0.05$); however, the highest mean difference is 3.240 between (L2_Post – L2_Pre-), followed by 2.725 between (L3_Post – L3_Pre-). The least mean difference is 1.192 between (L1_Post – L1_Pre-), as shown in Figure 5.

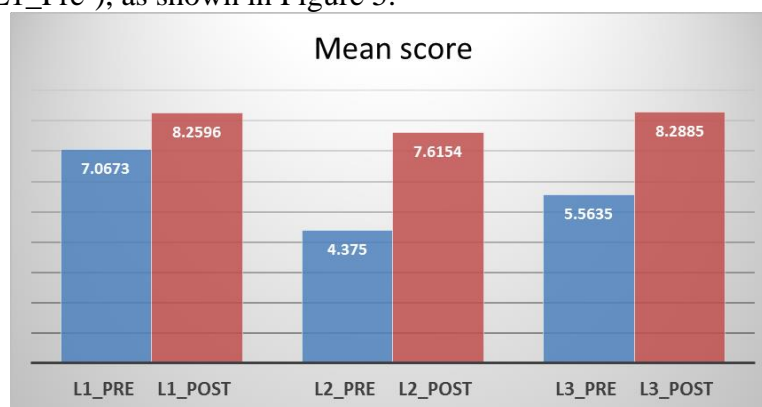


Figure 5. Mean scores for the three pre-and post-tests

Classroom Observation and Interviews

The classroom observation notes and interviews were qualitatively analyzed to assess students' perceptions of the mobile game use. The analysis involved a systematic exploration of the entire dataset, and attempted to identify noteworthy features that might establish a basis for recurring patterns. In addition, a set of initial codes was created using a data-driven approach, i.e., with no pre-existing coding framework or analytic preconceptions. Next, we sorted these codes by searching for potential themes, and collected all related data extracts according to the identified themes and sub-themes. The collections were then revised and refined to ensure internal homogeneity and external heterogeneity (Creswell, 2012). This analysis identified two major themes: attitudes/behavior and challenges/concerns. These themes and their sub-themes are summarized in Figure 6 and discussed in detail in the following section.

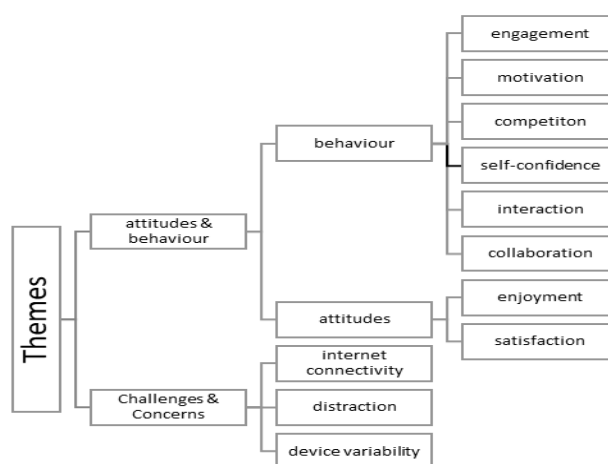


Figure 6. Themes and sub-themes from qualitative analysis

Discussion

This study investigated the integration of mobile games into a modern-day classroom learning environment, aiming to enhance students' Arabic orthography skills. Below, the study findings are discussed in the context of three categories: student performance, student attitudes and behaviors, and challenges and concerns.

Students' Performance

A quantitative data analysis of the student scores in Tables 1 and 2 revealed significant improvement in Arabic orthography following the use of the mobile game. The students performed significantly better in the post-test than in the pre-test for all three levels. Interestingly, the level of improvement was more evident at the intermediate and advanced levels. This can be linked to students' background knowledge, as most of them were familiar with basic orthographic rules from their previous education. Hence, most students achieved good scores on both the pre-and post-tests for L1. The significance levels were higher for the intermediate and advanced levels, potentially indicating that the game can facilitate the teaching of advanced Arabic orthography skills. These findings align with those of other studies; that is, significant improvements in learner performance are achieved when integrating mobile games into teaching and learning environments ((Prensky, 2001; Chaves et al., 2018; Bhide et al., 2019; Acquah et al., 2019; Sandberg et al., 2011; Ahmad,

Shaarani & Afrizal, 2012; Cho, Lee, Joo, & Becker, 2018). In all of these studies, researchers concluded that the integration of mobile games enhanced learning outcomes and had significant impacts on students' scores.

Students' Attitudes and Behaviors

The qualitative analysis revealed a positive attitude towards using the game among students. Furthermore, the classroom observations revealed high levels of engagement and motivation. On many occasions, students displayed considerable interest in practicing Arabic orthography using the game. A positive competitive atmosphere also developed, with students eager to achieve higher scores when completing the game and participating in the group tasks. It was interesting to observe the changes among the shy students. During the early sessions, these students seemed hesitant to participate in group tasks and preferred to play individually on their mobile devices; however, they showed more self-confidence in later sessions, and seemed more willing to participate in the group tasks. Studies have shown that mobile devices can create inclusive teaching and learning environments that engage all students, regardless of their abilities, backgrounds, or learning styles (Ciampa, 2013). High levels of interaction were detected among the students. They regularly discussed the game and Arabic orthography rules and assisted each other when encountering difficulties. The use of the mobile game appeared to allow students to develop their collaborative competencies, which positively impacted their learning behaviors. There were several instances in which they referred to their teachers or researchers for help or to check their answers. Most of the time, however, they interacted with their peers and discussed their progress. The interview data were consistent with these findings. During the interviews, most students expressed positive attitudes towards using the game. Almost all students reported that this teaching method was more enjoyable than the traditional teaching methods. Most expressed a wish to use the game in all sessions instead of only twice a week, reporting their excitement regarding attending class and using it. Many students reported that they continued playing the game at home and proudly demonstrated their progress to the teacher. Several students commented on how the game assisted them in understanding complicated Arabic orthographic rules and improved their reading. Some students reported that the instant feedback regarding their responses was constructive, and they perceived this feedback as an incentive for encouraging them to proceed to more challenging levels.

Such positive attitudes were reported in similar studies (Acquah et al., 2019; Al-Razgan et al., 2019; Niño, 2014; Koutromanos, 2020) i.e., that mobile games can be effectively integrated into language classrooms to attract students' attention and motivate them to focus on their learning. Yet, despite the students' positive attitudes, the data analysis revealed a recurring theme linked to the challenges and concerns reported by the participants, i.e., the teacher and students. Such challenges must be considered to ensure the effective integration of mobile games into teaching and learning environments, as discussed below.

Challenges and concerns emerged from the qualitative analysis. One of the significant challenges encountered in this study concerned Internet connectivity. Many researchers argue that Internet connectivity problems constitute a critical factor impacting free student access to resources (Hassler & Jackson, 2010; Haßler, Major & Hennessy, 2015). In this study, although each classroom was equipped with an Internet-connected PC, no WiFi connections were available.

It was necessary to provide an external router to enable all students to use the game, leading to interruption and frustration.

According to Khaddage et al. (2015), "schools often do not have an infrastructure for allowing an entire school population to access the Internet without adding costly WiFi access nodes." Teachers and students may find Internet access slow and frustrating, and these difficulties can waste instructional time. Another challenge was the possibility of distraction; on some occasions, students were observed using their devices to access other applications or to play other games during class. Additional supervision was also required as the students were freely accessing the Internet from their devices, and some students were tempted to access their social media accounts or to watch YouTube videos. At times, the teacher struggled to manage the students' behaviors and maintain their focus on learning. This is a common challenge associated with mobile learning (Uğur&Tuğba 2015). For the successful integration of this technology, research suggests that teachers should have supportive training programs focused on the pedagogy of mobile learning integration. Teachers must be provided with effective classroom management strategies to enhance their confidence in their instructional environments (Khaddage et al., 2015). Another suggestion for minimizing the distraction caused by mobile devices in a classroom is to provide a teaching assistant to monitor students and help keep them focused on class activities. Finally, the diversity of modern mobile devices, which have various screen sizes, can be a source of restriction for some students depending on the model and size of the device. In this study, some students used old mobiles that seemed slow and had low-resolution screens, as well as short battery lives. With smaller devices, the organization of working groups with more than two students was challenging, as these older mobiles seemed more suited to individual or paired tasks and were not appropriate for collaborative work.

Research suggests that the current affordability of technology will allow schools to provide a set of classroom mobile devices for promoting digital equality and minimizing technical challenges. Device variability is frequently identified as a factor affecting mobile learning integration (Haßler et al., 2015; Elias, 2020; Godwin-Jones, 2011). One limitation of this study is that it was conducted at an all-female school, and owing to cultural restrictions, it was impossible to include male students. Gender differences may be a significant factor affecting the study results; thus, further research is needed. Another limitation may be the duration of the study. As the study lasted only seven weeks, further research is needed to explore the long-term effects of mobile game integration on teaching and learning. Finally, as this was a case study with a relatively small number of participants, we did not attempt to generalize our findings to other contexts. Large-scale research is needed to enhance the generalizability of our findings.

Conclusion

This study explored the impacts of integrating mobile learning games on Arabic orthography skills among young Arab learners. The aim was to answer two research questions, as follows. First, what impact does the mobile Arabic orthography game have on elementary school students' performance? Second, how do Arabic elementary school students perceive this approach? The quantitative data analysis indicated a significant improvement in Arabic orthography skills among participants, especially for intermediate and advanced Arabic orthography rules. Furthermore, the qualitative analysis indicated an increase in students' engagement, motivation, and interaction.

The students reported that this teaching method was more enjoyable than traditional teaching methods. Many students reported that they continued practicing Arabic orthography at home using the game. These results have pedagogical implications for gamification in teaching and learning environments. Educators are encouraged to consider integrating mobile educational games into their instructional approaches, as they serve as a great incentive, especially for young students. Mobile games can be used to transform dull homework and classroom tasks into fun and exciting learning experiences. However, the findings also indicate several challenges and concerns that must be considered when planning to use mobile games in the classroom. Internet connectivity, device variability, and class management must be carefully addressed to ensure successful mobile game integration. We hope this research contributes to bridging the research gap on how to incorporate mobile gaming as an instructional tool into our classrooms, and how to enhance students' interaction and achievement levels. From a game design perspective, there is a significant challenge in designing and implementing instructional games that can promote learning while providing a fun, engaging, and immersive environment. Thus, our future work will enhance the game's instructional content by adding additional levels and increasing the number of passages. On the technical front, the next generation of the game will offer an offline edition, hoping to address the challenges reported in the study by allowing integration into classrooms with limited or no Internet access.

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References

- Abu-Rabia, S., & Taha, H. (2013). Reading in Arabic orthography: Characteristics, research findings, and assessment. In (R. Malatesha Joshi , P. G. Aaron eds.), *Handbook of orthography and literacy* (pp. 335-352). Routledge.
- Acquah, E. O., & Katz, H. T. (2020). Digital game-based L2 learning outcomes for primary through high-school students: A systematic literature review. *Computers & Education, 143*, 103667. <https://doi.org/10.1016/j.compedu.2019.103667>.
- Adi, S., & Wijaya, R. (2018). Teaching English Vocabulary Using Spelling Games for Indonesian Kindergarten Students: A Case Study. *Erudio Journal of Educational Innovation, 5*(2). Retrieved from <https://erudio.ub.ac.id/index.php/erudio/article/view/285>.
- Ahmad, W. F. W., Shaarani, A. R. S., & Afrizal, S. (2012). Mobile language translation game. *2012 International Conference on Computer & Information Science (ICIS)*. IEEE

Xplore. <https://ieeexplore.ieee.org/abstract/document/6297190>.

- Al-Jarf, R. (2021). Differential effects of the iPad on first and second language acquisition by Saudi children during the Covid-19 pandemic. *Conference proceedings of eLearning and Software for Education (eLSE)*, 17(1), 95-104. Carol I National Defence University Publishing House.
- Allen, M. (Ed.). (2017). *The SAGE encyclopedia of communication research methods*. SAGE publications. DOI: <http://dx.doi.org/10.4135/9781483381411>.
- Alobaydi, E. K., Alkhayat, R. Y., Arshad, M. R. M., & Ahmed, E. R. (2017, November). Context-aware ubiquitous Arabic Vocabularies learning system (u-Arabic): A framework design and implementation. *2017 7th IEEE International Conference on Control System, Computing and Engineering (ICCSCE)*. IEEE Xplore. Retrieved May 16, 2022, from <https://ieeexplore.ieee.org/abstract/document/8284373>.
- Alotaibi, K. A., & Alharbi, M. G. (2022). Assessing the Learning Outcomes of Using Mobile Game Integration in Teaching English Vocabulary: A Case Study of Saudi Arabia. *International Journal of Sociotechnology and Knowledge Development (IJSKD)*, 14(1), 1-16.
- Alsswey, A., Al-Samarraie, H., El-Qirem, F. A., & Zaqout, F. (2020). M-learning technology in Arab Gulf countries: a systematic review of progress and recommendations. *Education and Information Technologies*, 25(4), 2919-2931. Retrieved May 16, 2022, from <https://link.springer.com/article/10.1007/s10639-019-10097-z>.
- Al-Khalifa, H., Faisal, H., & Al-Matham, R. (2018). *Faseeh: A Serious Game for Arabic Synonym Acquisition*. Retrieved May 16, 2022, from http://lrec-conf.org/workshops/lrec2018/W12/pdf/2_W12.pdf.
- Al-Razgan, M. & Alotaibi, H. (2019). Personalized Mobile Learning System to Enhance Language Learning Outcomes. *Indian Journal of Science and Technology*, 12(1). Retrieved May 16, 2022 from DOI:10.17485/ijst/2019/v12i1/139871.
- Al-Razgan, M., & Alshaarri, S. (2019, October). Design and development of a mobile spelling game for elementary students using genetic algorithms. *Proceedings of the 2019 11th International Conference on Education Technology and Computers*, 205-209. Retrieved May 16, 2022, from <https://dl.acm.org/doi/abs/10.1145/3369255.3369311>.
- Amorim, A. et al. (2022). Escribo play learning games can foster early reading and writing for low-income kindergarten children. *Computers & Education*, 177, 104364.
- Back, T., Hammel, U., & Schwefel, H. P. (1997). Evolutionary computation: Comments on the history and current state. *IEEE Transactions on Evolutionary Computation*, 1(1), 3-17.
- Bartram, L., Bradley, L., & Al-Sabbagh, K. (2018, April). Mobile learning with Arabic speakers in Sweden. *Proceedings of the Gulf Comparative Education Symposium (GCES) in Ras Al Khaimah, UAE*, 5-11.
- Bhide, A., et al. (2019). Improving Hindi decoding skills via a mobile game. *Reading and Writing*, 32(9), 2149-2178. Retrieved May 16, 2022, from

<https://link.springer.com/article/10.1007/s11145-019-09934-x>.

- Booton, S. A., Hodgkiss, A., & Murphy, V. A. (2021). The impact of mobile application features on children's language and literacy learning: a systematic review. *Computer Assisted Language Learning*, 1-30. Retrieved May 16, 2022, from <https://doi.org/10.1080/09588221.2021.1930057>.
- Brosh, H. (2015). Arabic spelling: Errors, perceptions, and strategies. *Foreign Language Annals*, 48(4), 584-603. Retrieved May 16, 2022, from <https://onlinelibrary.wiley.com/doi/abs/10.1111/flan.12158>.
- Chang, C. Y., & Hwang, G. J. (2019). Trends in digital game-based learning in the mobile era: a systematic review of journal publications from 2007 to 2016. *International Journal of Mobile Learning and Organisation*, 13(1), 68-90. Retrieved May 16, 2022, from <https://doi.org/10.1504/IJMLO.2019.096468>.
- Chaves, P., et al. (2018). Orthographic Educational Game for Portuguese Language Countries. *Proceedings of the 10th International Conference on Computer Supported Education - Volume I: CSEDU*, (2), 432-440. Retrieved May 16, 2022, from DOI: 10.5220/0006757504320440.
- Chen, X., Yu, G., Cheng, G., & Hao, T. (2019). Research topics, author profiles, and collaboration networks in the top-ranked journal on educational technology over the past 40 years: a bibliometric analysis. *Journal of Computers in Education*, 6(4), 563-585. Retrieved May 16, 2022, from <https://link.springer.com/article/10.1007/s40692-019-00149-1>.
- Cho, K., Lee, S., Joo, M. H., & Becker, B. J. (2018). The effects of using mobile devices on student achievement in language learning: A meta-analysis. *Education Sciences*, 8(3), 105. MDPI. Retrieved May 16, 2022, from <https://doi.org/10.3390/educsci8030105>
- Ciampa, K. (2014). Learning in a mobile age: an investigation of student motivation. *Journal of Computer Assisted Learning*, 30(1), 82-96. Retrieved May 16, 2022, from <http://dx.doi.org/10.1111%2Fjcal.12036>.
- Cohen, M., Hadley, M., & Frank, M. (2011). Young children, apps & iPad. *US Department of Education Ready to Learn Program*, 200, 5-10. Retrieved May 16, 2022, from <https://docplayer.net/14375391-Young-children-apps-ipad.html>.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative* (Vol. 7). Upper Saddle River, NJ, USA: Prentice-Hall.
- Crompton, H., Burke, D., & Gregory, K. H. (2017). The use of mobile learning in PK-12 education: A systematic review. *Computers & Education*, 110, 51-63. Retrieved May 16, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0360131517300660>.
- Elias, T. (2011). 71. Universal instructional design principles for mobile learning. *International Review of Research in Open and Distributed Learning*, 12(2), 143-156. Retrieved May 16, 2022, from <https://doi.org/10.19173/irrodl.v12i2.965>.

- Erradi, A., Nahia, S., Almerekhi, H., & Al-kailani, L. (2012, May). ArabicTutor: A multimedia m-Learning platform for learning Arabic spelling and vocabulary. *2012 International Conference on Multimedia Computing and Systems*, 833-838, IEEE. Retrieved May 16, 2022, from <https://ieeexplore.ieee.org/abstract/document/6320220>.
- Furió, D., Juan, M.C., S. & Vivó, R. (2015). Mobile Learning vs. Traditional Classroom Lessons: A Comparative Study. *Journal of Computer Assisted Learning*, 31(3), 189-201. Retrieved May 16, 2022, from <https://www.learntechlib.org/p/160029/>.
- Godwin-Jones, R. (2011). Mobile apps for language learning. *Language learning & technology*, 15(2), 2-11. Retrieved May 16, 2022, from https://scholarspace.manoa.hawaii.edu/bitstream/10125/44244/15_02_emerging.pdf.
- Grose, M. (2013). *The good and the bad of digital technology for kids*. Insights. Retrieved May 7, 2021, from http://www.beaups.vic.edu.au/app/webroot/uploaded_files/media/insights_learning_technology_2.pdf.
- Hassler, B., & Jackson, A. M. M. (2010). Bridging the bandwidth gap: Open educational resources and the digital divide. *IEEE Transactions on Learning Technologies*, 3(2), 110-115. Retrieved May 16, 2022, from <https://ieeexplore.ieee.org/abstract/document/5456359>.
- Haßler, B., Major, L., & Hennessy, S. (2016). Tablet uses in schools: A critical review of the evidence for learning outcomes. *Journal of Computer Assisted Learning*, 32(2), 139-156. Retrieved May 16, 2022, from <https://onlinelibrary.wiley.com/doi/abs/10.1111/jcal.12123>.
- Johnson, L., et al. (2013, November 30). *NMC horizon reports EUROPE: 2014 Schools Edition. NMC Horizon Report Europe: 2014 Schools Edition - Learning & Technology Library (LearnTechLib)*. Retrieved May 16, 2022, from <https://www.learntechlib.org/p/182011/>.
- Juhani Lyytinen, H., Semrud-Clikeman, M., Li, H., Pugh, K., & Richardson, U. (2021). Supporting acquisition of spelling skills in different orthographies using an empirically validated digital learning environment. *Frontiers in Psychology*, 12, 566220.
- Karkar, A., Al Ja'am, J. M., Foufou, S., & Sleptchenko, A. (2016, April). An e-learning mobile system to generate illustrations for Arabic text. *2016 IEEE Global Engineering Education Conference (EDUCON)*, 184-191. Retrieved May 16, 2022, from <https://ieeexplore.ieee.org/abstract/document/7474551>.
- Khaddage, F., et al. (2015). A model-driven framework to address challenges in a mobile learning environment. *Education and Information Technologies*, 20(4), 625-640. Retrieved May 16, 2022, from <https://link.springer.com/article/10.1007/s10639-015-9400-x>.
- Koutromanos, G. (2020). Primary School Students' Perceptions About the Use of Mobile Games in the Classroom. In S. Papadakis and M. Kalogiannakis (eds.), *Mobile Learning Applications in Early Childhood Education* (pp. 230-250). Information

Science Reference. DOI: 10.4018/978-1-7998-1486-3.ch012

- Lameras, P., et al. (2017). Essential features of serious games design in higher education: Linking learning attributes to game mechanics. *British Journal of Educational Technology*, 48(4), 972-994. Retrieved May 16, 2022, from <https://doi.org/10.1111/bjet.12467>
- Niño, A. (2014). Language learners' perceptions and experiences on the use of mobile applications for independent language learning in higher education. *IAFOR Journal of Education*, 73-84. Retrieved May 16, 2022, from <https://eric.ed.gov/?id=EJ1100623>.
- Papadakis, S., & Kalogiannakis, M. (2017). Mobile educational applications for children: what educators and parents need to know. *International Journal of Mobile Learning and Organisation*, 11(3), 256-277. Retrieved May 16, 2022, from <https://www.inderscienceonline.com/doi/abs/10.1504/IJMLO.2017.085338>.
- Prensky M., (2001). Digital natives, digital immigrants part 2: Do they really think differently? *On the Horizon*, 9(5), 1-15. Available from: <http://www.marcprensky.com/writing/Prensky%20%20Digital%20Natives%20Digital%20Immigrants%20-%20Part1.pdf>
- Sandberg, J., Maris, M., & De Geus, K. (2011). Mobile English Learning: An evidence-based study with fifth graders. *Computers & Education*, 57(1), 1334-1347. Retrieved May 16, 2022, from <https://doi.org/10.1016/j.compedu.2011.01.015>.
- Sharkins, K. A., Newton, A. B., Albaiz, N. E. A., & Ernest, J. M. (2016). Preschool children's exposure to media, technology, and screen time: Perspectives of caregivers from three early childcare settings. *Early Childhood Education Journal*, 44(5), 437-444. Retrieved May 16, 2022, from <https://link.springer.com/article/10.1007/s10643-015-0732-3>.
- Taha, H. Y. (2013). Reading and spelling in Arabic: linguistic and orthographic complexity. *Theory & Practice in Language Studies*, 3(5). Retrieved May 16, 2022, from <https://www.researchgate.net/publication/236615869>.
- Uğur, N. G., & Tuğba, K. O. Ç. (2015). Mobile phones as distracting tools in the classroom: College students perspective. *Alphanumeric Journal*, 3(2), 57-64. Retrieved May 16, 2022, from <https://dergipark.org.tr/en/pub/alphanumeric/article/287550>.
- Vanbecelaere, S., et al. (2020). The effects of two digital educational games on cognitive and non-cognitive math and reading outcomes. *Computers & Education*, 143, 103680. Retrieved May 16, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0360131519302337>.
- Yamato, E. M., Corrêa, A. G. D., & Martins, V. F. (2017, June). AmarganA: A spelling game of the Portuguese language for use on mobile devices. *2017 12th Iberian Conference on Information Systems and Technologies (CISTI)*, 1-6. Retrieved May 16, 2022, from <https://ieeexplore.ieee.org/abstract/document/7975675>.
- Zaibon, S. B., & Shiratuddin, N. (2010, April). Adapting learning theories in mobile game-based learning development. *2010 Third IEEE International Conference on Digital*

Game and Intelligent Toy Enhanced Learning, pp. 124-128. IEEE. Retrieved May 16, 2022, from <https://ieeexplore.ieee.org/abstract/document/5463752>.

Raising Algerian Master's Students' Self-awareness towards Using Learning Strategies during Online Classes at Abdelhamid Ibn Badis University of Mostaganem

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Abstract

Since *the Coronavirus* outbreak in 2019, higher education has shifted from face-to-face learning to distance learning incorporating various platforms such as Moodle. The use of the latter has changed the Algerian university's teaching and learning dynamics. In this case, and unlike in-traditional class learning, which is characterized by physical interaction, online learning requires self-awareness about personal strengths and weaknesses. Thus, the issue addressed in this paper was which strategy the students need to use online and whether the students use the same learning strategies in the two modes of learning; in-class and online. They are now a must to use new strategies to engage in Digital Learning (DL). In this view and based on Oxford 2003, Chamot 2004, Griffith 2013, and O'Malley 1995 references regarding learning strategies that have been pointed out as major determinants for successful learning, this study aims to raise the students' self-awareness towards using different learning strategies in online learning compared to in-class learning. The main objective of the present investigation is to identify whether Master's students in the department of English at the University of Mostaganem use different learning strategies for their online courses or not. Oxford's Strategy Inventory of Language Learning (SILL), 1990, has been adapted and used with 80 Master's students of English at Abdelhamid University of Mostaganem, Algeria, to gather relevant data. The findings revealed that most students use the same language learning strategies for both in-class and online learning. Hence, an adaptation and strategy instruction for online learning is recommended, i.e., students have to modify and adapt their own way of learning the target language since some learning strategies may not be effective for distance one.

Keywords: Algerian Master's students, Covid-19, in-class learning, instruction, learning strategies, online learning, students' self-awareness

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Introduction

The purpose of instruction is not limited to acquiring new content but equipping learners with skills to cope with everyday challenges. Accordingly, the Algerian ministry of education has overhauled the whole educational system, starting with the primary level to the university level, where the teaching is learner-centered. Accordingly, teaching methodologies and approaches have been adapted to the main goals of learning in the new era. Because of its importance, teaching English has been introduced almost in all curricula, from middle school to university. Consequently, syllabi have been reviewed and adapted to the new requirements and demands. Technology and modern teaching methodologies have been introduced in teaching/learning. Besides, emphasis is directed toward the learners' learning mode, styles, and strategies. Indeed, learning outcomes should match learning goals. For such reasons, learners should be aware of the learning goals and the strategies they employ to attain satisfactory learning outcomes in in-class learning and mainly when used online.

In the year 2020, the world witnessed a sanitary crisis that compelled the population to a lockdown. As a result, institutions, firms, and companies have reduced their workforce attendance and opted for a shift to virtual work. Academically, teachers and their students attend virtual classes, a new mode of teaching/learning whereby several e-learning platforms or apps have been made available for teachers to deliver their courses through online platforms, such as Moodle(Sarnou & Sarnou,2021). Accordingly, it was necessary to identify the students' way of learning as compared to the in-person one. Therefore, the main objective of the present paper then is to shed light on the differences in strategy use in two different modes of learning; in-class and online. Accordingly, the main research question of the present paper is: Do master's students in the department of English at the University of Mostaganem use different learning strategies during their online courses?

In order to answer the above research question, we have assumed that the students use the same learning strategies for the two learning modes, which may lead to unsatisfactory learning outcomes.

Literature Review

Online learning, unlike in-person one, requires adaptation to the context. Indeed, learners and their teachers adopt different interactions with different teaching and learning approaches. Thus, both of them have to be aware of the characteristics that specify each mode of learning. Online learning not only requires specific tools but also requires learners' awareness of appropriate learning strategies used. Indeed, if not well-trained on the online platforms, learning would not be effective. According to Sarnou and Sarnou (2021), Moodle platform also failed to offer the students an interactive platform that allows them to stay connected with their teachers during the quarantine.

Effective learning, according to research, pertains to appropriate strategy use. Learners who are less successful or academically weak have access to fewer strategies and use them inadequately (Ali,2020). Indeed, they will not use effective strategies unless

learning is meaningful and relevant to learners' needs and preferences (Zimmerman & Schunk, 2001). Language learning strategies have been defined as the actions or tricks taken by the learners to accomplish an activity or a task (Chamot, 2004). Because of their impact on learning, language learning strategies have attracted the attention of many scholars to identify their types and purposes (Dorneyi, 2001 & 2003, Chamot, 2004, Oxford, 1996). There is a consensus in Algeria regarding the importance of language learning strategies in foreign language learning. However, there is a paucity in the literature on online language learning strategies. The present study tries to fill the existing gap and raise the students' awareness to adopt different language learning strategies for online learning.

Oxford's Typology of Language Learning Strategies

Language learning strategies have seen different classifications among scholars and researchers. Oxford (1990) has divided language learning strategies into two main categories; direct and indirect. The direct strategies are brain-based and include memory, cognitive, and compensation strategies responsible for acquiring new knowledge, solving a problem or completing a language activity. The indirect strategies are feeling-based and include affective, metacognitive, and social strategies and help language learners overcome the learning obstacles (figure one).

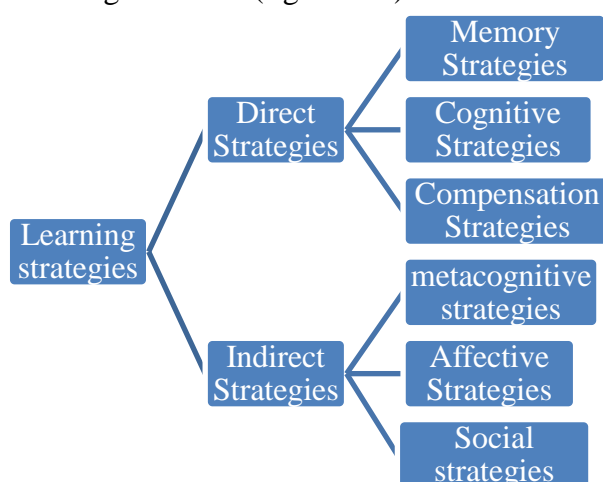


Figure 1. Oxford's typology of learning strategies (2001, 2003)

Although direct and indirect strategies are different in their application, they help learners achieve successful learning. Proper strategy use helps learners accomplish tasks and activities and help them overcome their anxieties and learning difficulties (Westwood, 2004).

Online Learning and Strategy Use

The current academic conditions have been affected by the sanitary conditions. Accordingly, in-person teaching has been partly replaced by distance teaching. Consequently, teaching has been adapted to avoid any disturbance in the students' academic achievements. Unlike in class, online learning is characterized by the absence of physical contact with the teacher and the classmates who may assist in learning. During

the confinement, some fundamental subjects are taught in class and transverse ones at distance. At different levels, the Algerian ministry of higher education and research has established a national platform (Moodle platform) to help both teachers and students meet virtually for academic purposes. Lectures for some subjects, that the students can easily acquire, are uploaded, and assignments are done at distance. The students are asked to acquire new content, learn new knowledge, and accomplish activities or tasks.

Apart from the availability of technical resources like the computer and internet access, online learning requires more effort and readiness from its participants; learners should expand their plans and develop autonomous learning strategies (Afzal, 2019). Both teachers and learners need to demonstrate their motivation to teach and learn non-conventional. Online learning requires personal involvement, and the students have to employ their learning strategies to cope with their learning difficulties they encounter. Indeed, remote teaching and learning are challenging for both teachers and learners. Both of them seek appropriate ways to attain satisfaction. Students, accordingly, use learning strategies that allow them to reach that purpose. It is noteworthy to mention that the students are experiencing new conditions in online learning, and consequently, they have to overcome some difficulties they are not used to. However, students can attain positive achievement using the right metacognitive strategies.

Metacognition results in specific changes in how learning is managed and the strategies chosen for this purpose (Anderson, 2009). Therefore, learning difficulties are caused by students' lack of appropriate cognitive strategies and a relative absence of metacognition (Westwood, 2004). The emphasis then is directed towards the teachability of metacognitive strategies for remote learning. Planning, controlling, and evaluating are crucial in metacognition and with which learners can easily succeed if properly applied. Educators should harness these to enhance an individual's ability to learn the language (Griffith & Parr, 2001). On the other hand, compensation strategies, like guessing or using synonyms, allow learners to use the language despite their often language gaps in knowledge (Oxford, 2003).

Methods

The present study sheds light on the students' use of learning strategies in the department of English at the University of Mostaganem in Algeria. The objective of the present investigation is to find whether the students use the same learning strategies in the two modes of learning; in-class and online.

Oxford's Strategy Inventory of Language Learning SILL, 1990 has been adapted and used to gather relevant data for such an objective. The inventory is divided into six main parts; A, B, C, D, E, and F (See appendix A). Part A concerns the memory strategies, part B concerns cognitive strategies, part C concerns compensation strategies, part D concerns metacognitive strategies, part E concerns affective strategies, and part F concerns social strategies. Each part includes four learning strategies except part D; the metacognitive strategies contain eight learning strategies. Each section questions the students about their learning strategies in the two modes of learning, in-class and online.

The strategy used is selected in terms of frequency, 1 for usually, 2 for sometimes, and 3 for rarely.

Participants

The research study took place in 2022 at Abdelhamid Ibn Badis University, in the department of English language with eighty Master one and two students of didactics and applied linguistics. The sampling was done randomly, and the students were free to participate in the study.

Research Procedures

Because of the sanitary conditions, the electronic version of the inventory is sent to the students via a social network group for master students. The inventory scale of language learning strategies has been adapted and sent to the students who were required to send it back after completing it. The inventory included two sets of learning strategies, and the students had to tick the ones they use in in-class learning and the ones in online learning. The completed version of the inventory is sent back to the researcher via her email address.

Results

Once the data was gathered, it was quantitatively and qualitatively analyzed. The selected strategies are counted and classified in terms of their frequency and use in the two different modes of learning; online and in-class. Identifying the frequent use of a learning strategy reveals their awareness of using the same or different learning strategies in two different modes of learning. The respondents' answers are compared and then analyzed.

As far as memory strategies are concerned, the data revealed that most students use the same learning strategies, except for thinking of the relationship between what they already know and what is new to them. The students said they rarely connect what is new to them and their prerequisite knowledge. When reading, the students said that they usually use the same strategies, looking for the meaning of words and avoiding translation in both modes of learning, and this demonstrates their unawareness of appropriate strategy use, which may lead to ineffective learning.

Also, the data showed that the students use the same compensation strategies, like guessing the meaning of new words. It is noteworthy to mention that compensation strategies help learners overcome their learning difficulties, and unless they are aware of those difficulties, they will not use the right learning strategy. The findings clearly showed that the students use fewer compensation strategies in online learning; this may be due to poor instruction and practice(figure two).

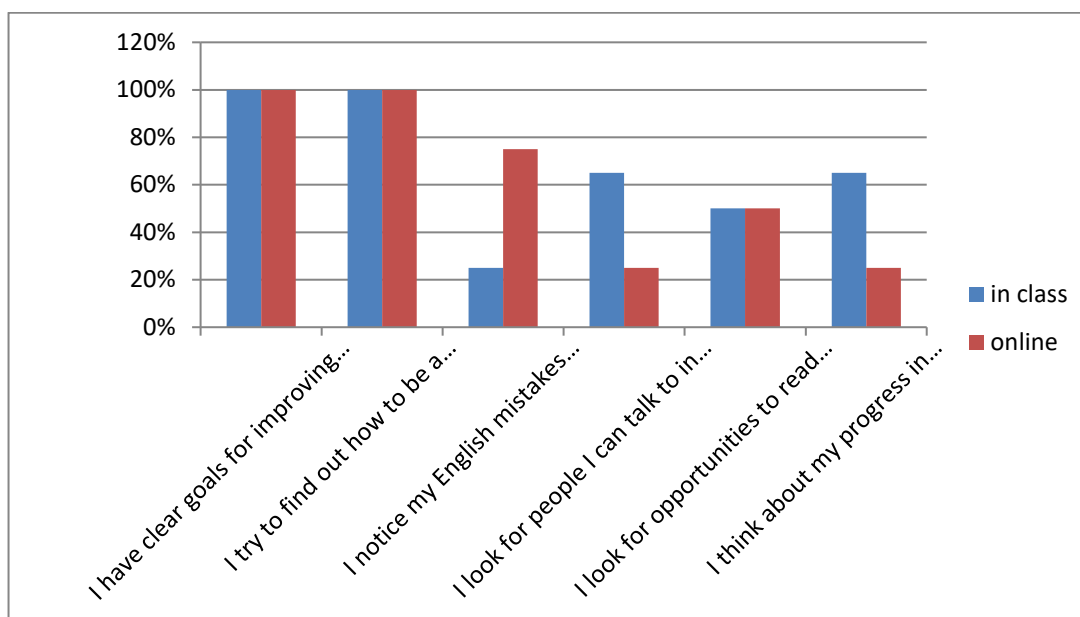


Figure 2. Learners' metacognitive strategy used in online and in-class learning

Metacognitive strategies are crucial determinants of effective learning. Unfortunately, the data revealed that all the students usually use the same strategies in learning the target language. Their goals in learning the target language have not changed in the two modes of learning since they avowed that they rarely look for opportunities to read in English. Also, the students said they rarely think of their progress in learning English; this clearly shows a significant difference between the students' goals in learning English and the strategies they use to achieve those goals.

Discussion

Many studies advocate the crucial role of learning strategies for successful learning. According to Oxford(2003), language learning strategies allow learners to become more self-directed and support their learning directly and indirectly. The present study aims to raise the students' awareness of the use of adequate language strategies in their online courses. Obviously, and as it has been hypothesized, the students use approximately the same learning strategies in the two modes of learning. They learn the target language in the two modes the same way, except for some strategies. Besides, the use of the same metacognitive learning strategies during the two modes of learning certainly does not provide the same chances for success in the two learning modes. The students do not use indirect strategies with the direct ones, which may be the main cause behind some students' failure to master the target language(figure two).

The paucity of using indirect strategies for general management of learning(Oxford,2003) in online learning does not help the students enhance their learning. Learning strategies such as planning, monitoring, organizing, elaborating, or evaluating, allay anxiety (O'Malley &Chamot, 1995). According to the new learning conditions, the students need to adapt their learning strategies. Metacognitive strategies

, such as, planning, organizing, monitoring, and evaluating their learning play a crucial role in helping the students overcome their learning difficulties in online learning. For online courses, planning is crucial because even under the best of circumstances, online learners often struggle with understanding what is expected of them. They can get unbelievably frustrated (or worse) and avoid learning at distance. In this context, Westwood, 2004 argues that learning difficulties may be due to the absence of metacognition . That is one of the best reasons for using a systematic approach to planning your instruction (Shank,2006). Students' physical assistance during in-person learning from their teacher or classmates does not necessarily disappear in online learning. Asking for assistance or help virtually can alleviate learning obstacles.

As far as affective strategies are concerned, the data revealed that these are not given priority. The students sometimes talk about their feelings or ask for help in in-person learning, but they rarely do in online learning. Similarly, they rarely ask for correction or practise with others to learn more about the target language; this implies that the students are more comfortable with in-person learning and cannot overcome their obstacles in online learning, which may negatively affect their learning achievement. Hence, training students to use appropriate learning strategies for distance learning is very required. In addition, using online dictionaries to understand the meaning of new words and interacting with classmates in social networking groups can be beneficial in overcoming anxiety and seeking help.

Conclusion

The present paper attempted to demonstrate students' wrong strategies used in online learning. Students have witnessed new teaching methodologies, combining in-person learning with online one. Because of its specificities, this latter asks learners to adopt different learning strategies from those they use during in-person learning. In fact, unlike in-class learning, which is characterized by physical interaction, online learning requires self-awareness about personal strengths and weaknesses. Aware of this, students have to modify their way to learn the target language since some learning strategies may not be effective for distance learning. Interacting with others in a virtual setting, asking for help or clarification, and asking for correction are good strategies to learn the target language. Indeed, the contemporary educational conditions require self-awareness and self regulation to cope with the new educational challenges. Therefore, it rests on the teachers' responsibility to implement new teaching techniques and strategies and help their learners use adequate ones.

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References

- Afzal, N. (2019). A Study on Vocabulary-Learning Problems Encountered by BA English Majors at the University Level of Education. *Arab World English Journal*, 10(3), 81-98. DOI: <https://dx.doi.org/10.24093/awej/vol10no3.6>
- Ali, M. A. (2020). Investigation of Vocabulary Learning Strategies to Identify Word Meanings for Saudi EFL Students in Reading Context. *Arab World English Journal*, 11(3), 149- 169. DOI: <https://dx.doi.org/10.24093/awej/vol11no3.9>
- Anderson, N, J. (2005). L2 Learning Strategies. In E. Hinkel. (Ed), *Handbook of research in second language teaching and learning* (pp. 757-771). Mahwah, NJ: Lawrence Erlbaum.
- Anderson, G, R. (2009). *Achieving Teaching Excellence: A Step-by-Step Guide*. USA: Independent Publishing Platform
- Arnold, J., & Brown, H, D. (1999). *Affect in Language Learning*. UK: The Cambridge University Press.
- Brown, A. (2009). Students' and Teachers' Perceptions of Effective Foreign Language Teaching: A Comparison of Ideals. *The Modern Language Journal*, 93, 46-60. Available at: <https://www.researchgate.net/publication/229734354>
- Chamot, A.U. (2005). Language Learning Strategy Instruction: Current Issues and Research. *Annual Review of Applied Linguistics*, 25, 112-130. USA: Cambridge University Press. Available
- Dornyei, Z. (2001a). *Teaching and Researching Motivation*. Malaysia: Pearson Education Limited.
- Dornyei, Z. (2001b). *Motivational Strategies in the Language Classroom*. UK: Cambridge University Press
- Dornyei, Z., & Schmidt, R. (2001). *Motivation and Second Language Acquisition*. USA: University of Hawaii Press
- Dornyei, Z. (2003). *Attitudes, Orientations, and Motivations in Language Learning. Advances in Theory, Research, and Applications*. UK: Cambridge University Press
- Dornyei, Z. (2006). Individual differences in second language acquisition. *AILA Review*, 19, 42-68. John Benjamin Publishing Company. Available at <https://benjamins.com/catalog/aila.19.05dor>
- Dornyei, Z., & Ushioda, E. (2011). *Teaching and Researching Motivation* (2nd ed.). GB: Pearson Education Limited
- Ellis, R. (2004). *Individual Differences in SLL: Handbook of Applied Linguistics*. Oxford: Blackwell
- Gardner, R. C. (1985). *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. Great Britain: Edward Arnold
- Gardner, R, C. (2001). *Language Learning Motivation: The Student, the Teacher, and the Researcher*. Austin: Texas University
- Griffiths, C., & Parr, J.M. (2001). Language-learning strategies: theory and perception, *ELT Journal*, 55(3), 247-254
- Griffiths, C. (2008). *Lessons from Good Language Learners*. UK: Cambridge University Press.
- Griffiths, C. (2013). *The Strategy Factor in Successful Language Learning*. Bristol:

Multilingual Matters

Mahyoob, M. (2020).Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners.*Arab World English Journal, 11*(4), 351-362. DOI: <https://dx.doi.org/10.24093/awej/vol11no4.23>

O’Malley, J. M.,&Chamot, A. U. (1995).*Learning Strategies in Second Language Acquisition*.USA: Cambridge University Press

Oxford, R. (1996).*Language Learning Strategies Around the World*.USA: University of Hawaii

Oxford, R. (2003).*Language Learning Styles and Strategies.AnOverview.GALA*, 1-25

Sarnou, H., &Sarnou, D. (2021). Investigating the EFL Courses Shift into Moodle during the Pandemic of COVID–19: The case of MA Language and Communication at Mostaganem University. *Arab World English Journal (AWEJ) Special Issue on Covid 19 Challenges*, (1) 354 -363. <https://doi.org/10.24093/awej/covid.26>

Shank, P. (2006.).*Developing Learning Assessments for Classroom, Online, and Blended Learning*.Workshop Materials.Centennial, CO: Learning Peaks

Westwood, P.S.(2004).*Learning and Learning Difficulties: A Handbook for Teachers*. Hong Kong: ACER Press

Zimmerman,B.J. (1990). Self-Regulated Learning and Academic Achievement: An Overview. *Educational Psychologist, 25*(1), 3-17, DOI: 10.1207/s15326985ep2501_2

Appendices

Appendix A

LLS Inventory(Adapted Version)

The present questionnaire scrutinizes the students’ strategy use. Complete each section by ticking the statement you feel accurately describes you in both **in-person** and **online learning**. Put **1, 2, or 3** in the column that best corresponds to you.

Thank you

1. Usually

2.Sometimes

3.Rarely

Statements	In-person learning	Online learning
PART-A (Memory strategies)		
1. I think of relationships between what I already know and new things I will learn inEnglish.		
2. I use newEnglish words in a sentence, so I can remember.		
3. I make a mental picture of a situation in which the word might be used.		

4. I remember new words or phrases by remembering their location on the page, on the board, etc.		
PARTB(cognitive strategies)		
1. I write notes, messages ,letters ,orreportsinEnglish.		
2. I first skim an English passage (read it quickly) then go back and read it carefully.		
3. I find the meaning of any English word by dividing it into parts that I can understand.		
4. I do not try to translate a given passage word by word to understand.		
PARTC)(compensation strategies)		
1. To understand unfamiliar English words ,I make guesses.		
2. When I cannot think of a word during a conversation in English, I use gestures.		
3. If I cannot think of an English word, I use a word or phrase that means the same thing.		
4. I read in English without looking up every new word.		
PARTD(metacognitive strategies)		
1. I have clear goals for improving my English skills.		
2. I try to find out how to be a better learner of English.		
3. I notice my English mistakes and use that information to help me do better.		
4. I look for people I can talk to in English.		

5. I look for opportunities to read as much as possible in English.		
6. I think about my progress in learning English.		
7. I always use a checklist to set my goals and evaluate my progress.		
8. I know the best ways that help me to understand or memorize.		
PARTE (affective strategies)		
1. I try to relax whenever I feel afraid of using English.		
2. I encourage myself to speak English even when I am afraid of making mistakes.		
3. I write down my feelings in a diary or talk to someone else.		
4. I talk to someone else about how I feel when I am learning English.		
PARTF (social strategies)		
1. If I do not understand something in English, I ask the other person to slow down or repeat it.		
2. I ask English speakers to correct me when I talk.		
3. I practice English with other students.		
4. I try to learn about the culture.		

Gamifying ESL Classrooms through Gamified Teaching and Learning

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Abstract

Modern trends lead to innovative technologies in education, including the birth of digital and gamified learning or gamification. In English language classrooms, meaningful teaching and learning are significant to developing students' English proficiency, focusing on linguistics and communicative competence. Various language activities and games are employed in lessons to instil anticipation for language learning. However, the concerns are how gamified learning is applied in English as a Second Language (ESL) lessons and the factors assisting students' meaningful English learning. Therefore, this paper, based on the review of past literature, explores the application of gamification or gamified learning in ESL teaching and learning. Based on the review, the researchers highlighted that motivation, engagement, and competition in learning through a gamification approach could assist students' meaningful ESL learning. It is found that gamification has its own motivation structure to arouse students' active participation. The elements in games that enhance students' engagement might improve students' learning. Although competition naturally arouses students' participation during ESL lessons, the findings indicated the need to create a safe environment to prevent students from feeling demotivated. This review paper contributes to the literature surrounding gamified ESL lessons.

Keywords: digital games, English as a Second Language, gamification, gamified learning, meaningful learning

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Introduction

English holds the position as the essential language in the world and is called the language of knowledge (Boyinbode, 2018). Many stress the importance of English proficiency to gain knowledge easily and self-development since most documents, websites, and platforms use English to appeal to the global population. The English language is learned to ease communication with others from different backgrounds and who speak native languages other than English. Besides, English is one of the language subjects in schools around the globe, proving its significance in society (Boyinbode, 2018). Similarly, in Malaysia and countries with non-native English speakers, English is the medium of instruction in schools, educational institutions, and workplaces (Maasum, Mustaffa, & Stapa, 2015; Anak Yunus & Hua, 2021).

However, according to Rafiq, Hashim, Yunus, and Pazilah (2019a) and Yacob and Yunus (2019), teaching and learning English are challenging due to factors such as understanding and using grammar items correctly. Hashim, Rafiq, and Yunus (2019) included mastering the linguistic skills, namely speaking, listening, reading, and writing, as well as practising the language in real-life contexts as the challenging factors. Rafiq et al. (2019a) stated that these challenges might demotivate students from learning and; cause a stagnant and decreasing number of students who cannot speak and use the language fluently in tertiary education, career, and real life even after years of formal and informal learning. Furthermore, there is an indication that students' performance in English language skills is discouraging and has been on a downward trend (Boyinbode, 2018). Locally, according to Anak Yunus and Hu (2021), the declining standard of English in Malaysia is a significant concern to meet the demands of global education. Therefore, it is important to explore how and why gamified learning could assist students' English improvement.

Teaching pedagogy and approach are characterized by a high degree of synergy with other factors influencing effective teaching. The language teaching and learning process has changed over the years following the various changes in the national curriculum (Adris & Yamat, 2015; Hashim et al., 2019), from traditional classrooms to digital learning environments (Subhash & Cudney, 2018; Yacob & Yunus, 2021). Today, pedagogy is interlinked with technology, automation, digitalization, and entertainment, leading to more forms and means of education. Besides, learning is enhanced through exposure to English media, intercultural and global knowledge, and meaningful language learning activities (Maasum et al., 2015; Anak Yunus & Hua, 2021). Teachers are encouraged to be creative (Mee, Shahdan, Ismail, Ghani, Pek, Von, Woo, & Rao, 2020). They are also encouraged to exploit the advantages of technology and maximize the use of digital materials in lessons. In sync with the rapid advancement in education, teaching and learning are modernized and supported by technology (Anak Yunus & Hua, 2021; Welbers, Konjin, Burgers, de Vaate, Eden, & Brugman, 2019; Hashim, Yunus & Hashim, 2019). Chambers and Yunus (2017) have described how different approaches and classroom activities are significant to cater to students' different needs for effective learning. It attracts students' attention and interest in learning the complex English language (Sanchez-Mena & Marti-Parreno, 2017; Pazilah, Hashim, & Yunus, 2019). In any case, English is often considered dull and challenging to be acquired but could be exciting when fun approaches are implemented (Rahmani, 2020; Rafiq, Pazilah, Yunus, Hashim, & Sabri, 2019b).

One of the technologies in lessons is called gamification or gamified learning (Desnenko, Pakhomova, Starostina, & Tokareva, 2021; Pektas & Kepceoglu, 2019). Gamification and game-based learning are slightly different (Ding, Kim, & Orey, 2020), since gamification uses game design components in a non-game context, whereas the latter refers to the use of actual games (Welbers et al., 2019; Sanchez-Mena & Marti-Parreno, 2017). In the ESL classroom, gamified learning tools are used in softcopy and hardcopy to improve students' English proficiency (Rafiq et al., 2019a). The application of language games in lessons must use a game in which the rules have linguistic goals and are agreed upon by the participants (students) (Ibrahim, 2016). Through tweaks and alterations, the concept of games has evolved from self-entertainment to edutainment (Rahmani, 2020). According to An (2020), gamification has been used in various settings such as education, business, and healthcare. In an educational context, gamification is described by Fulton (2019) as "the bringing of game elements, into non-gaming environments to capture the motivational factors found in games" (p. 1). Similarly, Kingsley and Grabner-Hagen (2018) mentioned educational gamification as "an instructional method that turns learning into games" (p. 1). There are several reasons why games deserve a place in language lessons, and digital games share similar reasons. Hence, the influence of the motivating factors in designing effective games should be explored (Naggar & Berkling, 2020). This study looks into the elements in games that effectively enrich learning.

Students are known as digital natives for their competency in using gadgets, machines, social media sites, and playing digital and online games (Rahmani, 2020). This is because they grew up with technology (Hashim et al., 2019). Rahmani (2020) and Anak Yunus and Hua (2021) added that most students are engaged in using mobile phones to play games because they are interactive and exciting. A handful of games such as flashcards, word games, and video games on the internet are easy and enjoyable to use in lessons. Quizzes, tests, and other interactive tasks with gamification elements such as Quizizz, Triventy, Wordwall, and Kahoot can make learning more active (Desnenko et al., 2021). The element of fun in games can activate students' interest to participate in lessons more actively (Subhash & Cudney, 2018; Mee et al., 2020). Furthermore, games are interactive and more stimulating (Hashim et al., 2019). Most games require teamwork, collaboration, and student interaction (Maasum et al., 2015). They can share ideas and perspectives through effective engagement and collaboration, often associated with games (Anak Yunus & Hua, 2021). Relatively, students become engaged in discussion and learning through gamification (Ding et al., 2020). Primarily, students' anticipation of learning is crucial as it shapes their overall learning process.

Gamification can be applied based on motivating applications and game platforms available for classroom learning (Desnenko et al., 2021). It can enhance language students' engagement in their learning processes (Subhash & Cudney, 2018; Tsay, Kofinas & Luo, 2018; Anak Yunus & Hua, 2021; Poondej & Lerdpornkulrat, 2016) and further improve their performance (Adris & Yamat, 2015; Mekler, Brühlmann, Tuch, & Opwis, 2017). Thus, using game elements in lessons can encourage ESL teachers to create a better learning environment that is more positive, interesting, and interactive as equally important to achieve a successful language learning process (Alyaz & Genc, 2016; Rafiq et al., 2019b). Adris and Yamat (2015) opined that the interaction between language students and the games assigned would somehow increase their language competency. Hence, this review paper looks into the application of gamification or

gamified learning, student motivation, engagement, and competition in learning through gamification of ESL lessons.

Literature Review

The Application of Gamified Learning in ESL Lessons

Being proficient and competent in English is a demand, although learning English as a second language is commonly considered complex in Malaysia (Maasum et al., 2015). Various approaches have been integrated to simplify English language learning for local students. Over the years, English language educators and teachers have adopted best practices worldwide into their teaching styles to replicate practical and meaningful ESL lessons. The application of game elements to non-game or language educational settings has risen in popularity as an engaging learning method (Hanus & Fox, 2015; Buckley, Doyle, & Doyle, 2017; Poondej & Lerdpornkulrat, 2016). For instance, learning grammar through games can sustain students' interest to improve their understanding of the subject matter (Chambers & Yunus, 2017; Hashim et al., 2019; Yacob & Yunus, 2019; Mee et al., 2020). As a result, students' engagement will enhance their learning and progress (Rafiq et al., 2019b; Hashim et al., 2019; Poondej & Lerdpornkulrat, 2016). It can be proven through the achievement of learning outcomes.

Game-based learning helps to improve students' learning by enhancing contextual understanding and thinking processes (Chow, Woodford, & Maes, 2011). It is increasingly becoming an effective approach in creating meaningful and engaging lessons. A study conducted by Rahmani (2020) found that the benefits of game-based learning or gamification in lessons include improving motivation, developing positive attitudes, better cognitive achievements, and performance in activities. The author further stated that the findings confirmed that the implementation fosters 21st-century skills, encourages social interaction and independence, and improves students' competitiveness during lessons. Although this qualitative study could not be generalized, the findings from the analysis of thirteen relevant articles could enrich the literature in this area.

To further emphasize, language learning using game-like approaches can be exploited as a potential learning tool to arouse students' motivation, strengthen engagement, and consequently improve their learning quality (Poondej & Lerdpornkulrat, 2016; Yacob & Yunus, 2019; Ding et al., 2020; Vargas-Macias, Rodriguez-Hernandez, & Sanchez-Saenz, 2020; Pham et al., 2021). For example, Antonaci, Klemke, and Specht (2019) have discussed the deployment of game components in Massive Open Online Course (MOOC) and found that it could increase students' engagement. The authors stressed that gamification is a successful strategy that engages students, especially in online education (Antonaci et al., 2019). When students are engaged in lessons, they can learn better by grasping the subject matter taught (Rafiq et al., 2019a). Engagement allows students to develop a more profound connection with the learning process, and they can enjoy it. According to Maasum et al. (2015), since games could become a source of enjoyment in learning English, it was discovered that students did not feel shy to participate in the activities. It is associated with students' positive responses and feelings toward gamified ESL lessons. In regards to students' positive emotions throughout the learning period, they reported feeling more confident in using English in a gamified learning environment (Maasum et al., 2015).

Positive reinforcement, such as badges or rewards, increases their motivation to progress and finish the assigned tasks related to their language learning (Anak Yunus & Hua, 2021). However, it also depends on the reward system's credibility, transparency, challenge, and fairness to be considered a motivational tool (Buckley et al., 2017). Nevertheless, games can positively impact teaching and learning English (Maasum et al., 2015). Since the improvement in students' learning outcomes can be seen with the use of gamification (Rafiq et al., 2019a; Anak Yunus & Hua, 2021), Bal (2019), in his study, has found that students' improvement in higher-order thinking skills when gamification is used to learn writing.

Although the benefits of digital games in assisting ESL students' language acquisition are widely known, there are adverse effects of digital gamified learning which need to be explored (Alyaz & Genc, 2016). Distraction is one of the concerns ESL teachers and students have regarding digital games since students must spend time on their mobile phones or devices to complete the language games. A study done by Alyaz and Genc (2016) found that "students played games with their mobile devices for hours" (p. 133). Assigning digital games to students may contribute to this distraction in their learning process once they have found non-educational games. Hence, it is suggested that learning involving games can be separated into several sessions to reduce screen time among school students and give them enough time to complete the assigned task systematically (Welbers et al., 2019). Overall, it is significant to conduct studies "examining the contribution of games to various languages and language skills in order to improve the use of digital game-based language learning" (Alyaz & Genc, 2016, p. 142).

The study conducted by Adris and Yamat (2015) indicated that students' negative perceptions of video games in English teaching and learning were mainly due to issues of equipment or device. Although this study was specifically on Massively Multiplayer Online Role-playing Games (MMORPG), the findings of students' negative perceptions should be considered. It is further supported by Mekler et al. (2017) that the method of implementing gamification should be appropriate and organized since students may lack motivation if technical issues occur. Similarly, the motivational features or aspects of learning-oriented games should be examined in more detail to ensure effective learning (Welbers et al., 2019). Using appropriate game elements for learning based on available facilities is essential. There is also a case of insufficient attention given to the design of gamification or gamified learning that does not have a meaningful context (An, 2020). Substantially, gamification in learning is more than points, badges, and leaderboards since it creates a practical learning experience using games for students. Thus, a game element must be added based on its functionality and considering its effects on learning (An, 2020). The mere addition of game elements does not ensure a practical and meaningful gamified learning experience for language students. Preparing future ESL teachers with appropriate digital skills, including digital literacy and gamification technology, is vital in current and future education systems (Desnenko et al., 2021).

Self-Determination Theory

The Gamification approach in language lessons is closely related to Self-Determination Theory (SDT) proposed by Ryan and Deci in 1985. Boyinbode (2018) stated that "gamification combines both intrinsic and extrinsic motivation to raise user engagement and also influences their behavior towards learning" (p. 183). The extrinsic and intrinsic motivation that encourages the desire to act

and respond to the learning content or activities and the expectation for rewards come from the SDT viewpoint (Healey, 2018). SDT postulates that individuals' engagement in an activity can be achieved with the presence of their basic psychological needs (relatedness, autonomy, and competence) (Ryan & Deci, 2000). Referring to Ryan and Deci (2000), there are three important aspects of SDT; (1) autonomy, feeling in control, (2) competence and skill, finally (3) relatedness or connection to others in the group. Gamification is an engaging platform for students to learn autonomously and collaboratively with peers (Tan, 2018). This develops students' self-determination to complete the tasks successfully and immerse them in the language learning process.

Students' progress unravels the connection between gamification and Ryan and Deci's self-development theory in students' learning approach. As aforementioned, gamified learning nurtures students to be active participants to experience independent and autonomous learning (Rafiq et al., 2019b; Pham, Nguyen, & Le, 2021) and active discussion during activities (Ding et al., 2020). On a similar note, meaningful gamification is a catalyst to motivate students to grasp key concepts of their language lessons (Tan, 2018).

Gamifying ESL Lessons

As a leading trend in global education, gamification is characterized as an innovative technology (Tan, 2018; Desnenko et al., 2021) that aims to create fun, practical, and meaningful learning for students (Pazilah et al., 2019; Anak Yunus & Hua, 2021). Gamification employs game elements that are quests, hints, challenges, levels, and rewards that challenge students and intensify their competitive spirits (Poondej & Lerdpornkulrat, 2016; Kingsley & Grabner-Hagen, 2018). Other game elements or components used in gamification are avatars, scoring, progress bars, rating tables, and ranking displayed (Desnenko et al., 2021). Game-like engaging activities have appealing elements and clear instructions that can motivate students to learn positively (Rafiq et al., 2019b; Vargas-Macias et al., 2020). Besides, with today's technological advancement, ESL teachers can maximize technology use through various available web and application-based software. Consequently, gamified learning supports student-centered learning (Tsay et al., 2018; Hashim et al., 2019); and students as the focus.

A study by Alomari, Al-Samarraie, and Yousef (2019) summarised its findings of gamification techniques used in selected previous studies into "the highest utilisation to the lowest that are points, badges, leaderboards, levels, rewards, progress bars, challenges, feedback, and avatars consecutively" (p. 399). The top three highest utilization points, badges, and leaderboards reflect standard gamification components in education (Alomari et al., 2019; Antonaci, 2019). Based on the observations made by the authors, using points to gamify learning activities helps create a competition-fun environment where students can also think critically and creatively to respond to others' views and ideas (Chow et al., 2011; Alomari et al., 2019; Mee et al., 2020). It is a motivating process for students since they will feel more intrigued to participate actively and gain more points. Additionally, the authors signified that learning badges for students are a sign of accomplishment that will stimulate them to put more effort into completing the tasks, which, in the end, enhances the learning outcomes (Alomari et al., 2019).

The use of leaderboards is common in gamification. It shows the leaders' ranking and how the students perform (Poondej & Lerdpornkulrat, 2016; Antonaci et al., 2019) and instills competitive spirits among students (Alomari et al., 2019). Interestingly, leaderboards can enable social comparison that influences positive performance (Antonaci et al., 2019). Students show eagerness when competing with others and completing tasks. Besides leaderboards, feedback is an element of games that can give students information about their progress, achievements, issues, and clues (Antonaci et al., 2019). Providing feedback may enhance learning (Welbers et al., 2019). It makes learning more interactive and meaningful when elements that can enhance interactions are further maximized and exploited. Most importantly, it demonstrates a student-centered learning approach that is highly promoted to be implemented.

Using game elements in teaching is beneficial. However, some designs must be deliberately considered when selecting appropriate games or gamifying a lesson (Kijjoonpol & Phumchanin, 2018). It is imperative to understand the contexts in which gamification is effective in language learning (Buckley et al., 2017; Nagggar & Berkling, 2020). Game designers and teachers should be aware of the expected outcomes of a specific game component within a particular learning context and audience (Antonaci et al., 2019). Therefore, An (2020) has listed "eight design considerations for gamification, including (1) meaning, (2) user-centered design, (3) challenges, personalisation, and feedback, (4) autonomy, (5) extrinsic rewards, (6) social interaction and relatedness, (7) competition vs. cooperation, and (8) failure as an opportunity to learn" (p. 63). In support, Nagggar and Berkling (2020) added that for a reading activity, "games need a simple, short tutorial and sentences should be kept short of supporting beginning readers" (p. 65). These thoughtful designs should be a guideline for ESL teachers creating gamified learning in language lessons. Further, it does not necessarily involve using technology (Buckley et al., 2017) to make it more appealing to be integrated with any learning approach. Nonetheless, successful games consist of a narrative that provides students with engaging contexts and meaning (An, 2020). The design, implementation, and effectiveness of gamification are closely connected to the participants and the context of the application (Antonaci et al., 2019; Pham et al., 2021). It relates to students' performances and English ability when different styles and games are used (Kijjoonpol & Phumchanin, 2018).

In contrast, due to the differences in language competency level and other factors, students tend to have different problems regarding gamified learning. According to An (2020), "a challenge that is enjoyable to some students can be too difficult and frustrating to others" (p. 64). Also, too many games may cause ESL students to be overwhelmed, especially when they are supposed to play to learn language skills (Kijjoonpol & Phumchanin, 2018). Specific gamification techniques have both favorable and unfavorable effects on students' learning (Alomari et al., 2019). Employing appropriate gamification activities to contribute to intended learning outcomes in lessons is crucial. Successful implementation of gamified learning in English lessons is seen in a livelier learning environment, active engagement (Buckley et al., 2017; Ding et al., 2020), better English competency, and improved cognitive achievements from the various assessments and tasks (Hashim et al., 2019; Rahmani, 2020). Generally, regardless of mainstream learning techniques today, it is prudent to evaluate each trending technique and material before adopting it in the classrooms (Hanus & Fox, 2015). There are comprehensive alternatives that ESL teachers and other educators have access to. An (2020) has suggested that "future research to pay more

careful attention to design aspects, consider contextual factors, and contribute to developing research-based guidelines for designing effective gamified experiences” (p.67).

Motivation

The starting point to incorporate gamification is to design a fun, game-like lesson (Hashim et al., 2019; Mee et al., 2020) to attract and motivate students to learn (Kingsley & Grabner-Hagen, 2018; Vargas-Macias, 2020). When students show a lack of motivation toward their learning process, it is challenging to engage them in participating (Maasum et al., 2015). Essentially, motivation is crucial in learning English continuously and effectively (Boyinbode, 2018; Hashim et al., 2019). It is a binding force that may stimulate ESL students' interest in learning (Rafiq et al., 2019a). Maasum et al. (2015) believed that the English class activities that are non-game did not necessarily motivate the students. That becomes the reason for the growth of gamified and technology-based learning in ESL lessons. Rafiq et al. (2019b) have completed a study to identify students' perceptions towards gamified learning, and the findings showed that the said approach is motivating. The authors found that students displayed interest when motivated and consequently could accomplish better learning outcomes. Hence, along with the shift in education and increasing application of technology in teaching and learning, games can motivate students to stay focused, active, and enjoy tedious tasks assigned (Hanus & Fox, 2015; Tenorio et al., 2016).

A study by Kijjooonpol and Phumchanin (2018) related to the use of gamified teaching style to teach phrasal verbs has shown that using games encouraged Thai English students to understand phrasal verbs. The authors assured that students showed measurable improvement in their knowledge of phrasal verbs, could understand and remember more phrasal verbs after the lessons. However, since the duration of this study was short, it used fewer phrasal verbs and did not measure the students' long-term memory. Another study by Boyinbode (2018) on learning vocabulary has proven that games have enhanced students' English vocabulary skills and promoted learning interests among them. It is supported by Hashim et al. (2019) that English language games give an inexplicable learning experience for students to gain new vocabulary. A study in Turkish language lessons by Bal (2019) presented that gamification has positively affected students' motivation to actively participate in the writing process. The author insinuated that writing via digital gamification improved students' creativity and problem-solving skills in English language learning.

Gamification has its motivational structure and based on past studies, it is found that components in gamification that fit the lesson design can be highly motivating for students (Kijjooonpol & Phumchanin, 2018; Ding et al., 2020). The components such as points, badges, and scores are mainly seen as external rewards (Antonaci et al., 2019), and rewards stimulate students' desire to win and complete the activities assigned (Alomari et al., 2019). It initiates positive attitudes from students to complete the tasks (Anak Yunus & Hua, 2021). Intrinsic and extrinsic rewards arouse students to actively participate in the learning process even if they pose some challenges. If students show positive changes in behavior when gamification is implemented compared to the opposite, it indicates an improvement in their intrinsic motivation (Rahmani, 2020). However, according to Mekler et al. (2017), students' performance did not necessarily reflect their intrinsic motivation. However, their findings align with game elements' functions as extrinsic incentives that promote students' performance. The authors affirmed that gamification

components did not affect students' feeling competent and intrinsic motivation. It is worth noting that by evaluating the components and using theory to assess their effectiveness, ESL teachers could create ideal gamified learning that instills intrinsic motivation (Hanus & Fox, 2015).

The extrinsic rewards include the status and achievements of students (Desnenko et al., 2021). Another form of reward in gamification is the trophies to commemorate students' achievement in overcoming challenges (Antonaci et al., 2019). Besides, virtual currency, coins, gifts, and tokens are the types of rewards students look forward to when playing games. Students advancement to the next phase should be supported by the proposed task that will summarise their understanding (Desnenko et al., 2021). However, educators must apply extrinsic rewards more carefully and accordingly with other needed strategies (An, 2020). Reward-based gamification is identified as exclusively relying on external rewards to motivate students; thus, ESL teachers can find ways to sustain their motivation and enthusiasm for learning (Mee et al., 2020). In the novelty of gamified learning, it is to draw students' attention, incite excitement to learn, and motivate prolonged participation.

Engagement and Competition

Social interaction and collaboration skills are fundamental for students (An, 2020) and should be nurtured and developed in schools. It is mentioned that games enhance students' engagement in lessons and interaction regarding the subject matter and may increase their scores (Alomari et al., 2019) or learning outcomes. It is less stressful for students to learn English when there are no gaps between high-intermediate and low-intermediate students during the activities (Rahmani, 2020). Tenorio, Bittencourt, Isotani, Pedro, and Ospina (2016) have employed a study to deal with students' lack of motivation and engagement in peer assessment activities. The study verified that gamification increased engagement and positive influence, also due to better collaboration among students, time and costs to complete their assessments were vastly reduced (Tenorio et al., 2016). Students have the freedom to show their skills and abilities in practising English and collaborating with others in the team. It is visible that social environments can boost engagement with others and overall learning environments (Naggar & Berkling, 2020). Thus, besides communication skills, students can improve their teamwork skills while working with others (Rafiq et al., 2019b). These skills are vital in 21st-century learning to produce holistic students.

As aforementioned, in gamified learning, the addition of badges as rewards, scoreboards, exciting remarks, and rating is among the standard components when designing the lesson. The badges used in games improve social interaction and competitiveness, enhance social competence, and practice English in authentic contexts among students (Rahmani, 2020). Competitive spirit among students is also a way of showing engagement in the activities and lessons. Competition in gamified learning impacts students' drive to complete the tasks and challenge others. It can be generated through progress tracking and the fight to get the highest score (Buckley et al., 2017). An example of a game promoting competition is a matching game, as they can compete with other groups and cooperate to help each other in their respective group (Kijpoonpol & Phumchanin, 2018). The competition and cooperation aspects propose that gamification can serve a diverse class's learning needs and challenge students with a high ability (Tsay et al., 2018). Students can compete with one another in a safe environment (Pham et al., 2021), and use their critical thinking and problem-solving skills to find the best solution to complete the games (Chow et al., 2011;

Rafiq et al., 2019b; Mee et al., 2020; Bal, 2019). These are among the aspects of meaningful learning.

There are both negative and positive effects of competition. Hanus and Fox (2015) clarified that "the effects of competition may depend on whether it is a constructive competition or destructive competition" (p. 154). It is further explained that constructive competition refers to the fun experience and positive relationships among students, whereas destructive competition is harmful. The leaderboards are the element that could be perceived as either constructive or destructive for individually different students. It is because competition can create an adrenaline rush and the need for speed that is part of the enjoyment; however, not everyone likes to be in a constant state of competition (An, 2020; Tsay et al., 2018). Hanus and Fox (2015), whose longitudinal study assessed how particular gamification elements affected student satisfaction, motivation, enjoyment, empowerment to learn, and grades over time, have found meaningful findings compared to other findings related to gamified learning. When comparing the results between a control and treatment group, the authors found that "students from each course started at the same levels of intrinsic motivation, satisfaction, effort, social comparison, and empowerment" (p. 159). Nonetheless, over time "students in the gamified course tended to decrease in motivation, satisfaction, and empowerment relative to the non-gamified course" (p. 159). Hence, gamification elements should be carefully considered to suit students' level, background, and meaningful context.

Some students do not enjoy competition since failures can demotivate students (An, 2020; Buckley et al., 2017). Welbers et al. (2019), in their study, annotated that students feel bored and demotivated when their scores are poor or lower than average. In order to avoid such feelings among students, ESL teachers are responsible for creating a safe environment that supports students to learn through failures and take a risk (An, 2020). Mee et al., (2020) recommended providing students with the platform to actively compete in a friendly way. It is suggested that ESL teachers explore more approaches using gamification to increase students' motivation and dynamic performances instead of merely replicating the available and in-trend games into lessons (An, 2020). Generally, the findings on students' perceptions of gamified learning in language lessons indicated students satisfaction with the method compared to the traditional language learning method (Kijpooonpol & Phumchanin, 2018; Buckley et al., 2017). However, games and digital games may not be sufficient as the only tool used for language learning; instead, they are seen as an effective supplement to the teaching and learning of ESL (Adris & Yamat, 2015). Anak Yunus and Hua (2021) affirmed that it is significant "to embrace gamification in education to solidify the teaching and learning in the 21st century" (p. 104). Likewise, Rahmani (2020) concluded that gamification is the solution to a failing and passive English learning environment, as it may help ESL teachers create a more engaging and meaningful learning environment for students.

Conclusion

Past studies have presented the effectiveness of using game-like activities in language lessons. The implementation of gamification in ESL classrooms is reported to make a profound difference compared to traditional and non-game-like English lessons. Thoughtful designs can create effective gamified language learning experiences that boost students' motivation and enrich

engagement. The competitiveness allows them to learn actively and with purpose to complete the tasks assigned.

Overall, this review paper examined how gamification or gamified learning is applied in ESL teaching and learning. The competitiveness, incentive, and engagement in gamified learning support students' meaningful ESL learning. It has been discovered that gamification has a motivational framework to encourage active engagement from pupils. Gamification components that increase student engagement may also promote learning. Although students' engagement in ESL sessions is naturally sparked by competition, a safe setting is necessary to prevent students from becoming demotivated. Therefore, language teachers should be given sufficient support to design and implement safe and effective gamified language lessons. This review is relevant to add to the body of knowledge about gamified ESL teaching. It contributes to the area of interest by increasing awareness about the use of gamification in ESL teaching and learning effectively, the benefits of gamified learning, and consideration that should be made. As a result,

As noted previously, it is recommended that different language teaching and learning techniques be explored to maximize learning outcomes. Identifying the strengths and weaknesses of implementing gamified learning in ESL lessons is crucial for further improvement. It is suggested that future studies investigate the weaknesses of gamified ESL lessons in the local context of Malaysia and provide more solutions to tackle the problems.

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References

- Adris, N. B., & Yamat, H. (2015). Massively multiplayer online role-playing games (MMORPG) as virtual grounds for second language learning: players' perception. *Proceedings of the International Seminar on Language Teaching*, (pp. 1-15), 4-5 February 2015. Universiti Kebangsaan Malaysia: Bangi. ISBN 978-983-9122-26-8.
- Alomari, I., Al-Samarraie, H., & Yousef, R. (2019). The role of gamification technique in promoting student learning: a review and synthesis. *Journal of Information Technology Education: Research*, 18, 395-417. doi: doi.org/10.28945/4417
- Alyaz, Y. & Genc, Z. S. (2016). Digital game-based language learning in foreign language teacher education. *Turkish Online Journal of Distance Education*, 17(4), 130-146. ISSN 1302-6488.
- An, Y. (2020). Designing effective gamified learning experiences. *International Journal of Technology in Education*, 3(2), 62-69. ERIC EJ1264027
- Anak Yunus, C. C., & Hua, T. K. (2021). Exploring a gamified learning tool in the ESL classroom: the case of Quizizz. *Journal of Education and e-Learning Research*, 8(1), 103-108. doi: [10.20448/journal.509.2021.81.103.108](https://doi.org/10.20448/journal.509.2021.81.103.108)
- Antonaci, A., Klemke, R., & Specht, M. (2019). The effects of gamification in online learning environment: A systematic literature review. *Informatics*, 6(3), 1-22.

- doi: doi.org/10.3390/informatics6030032
- Bal, M. (2019). Use of digital games in writing education: an action research on gamification. *Contemporary Educational Technology, 10*(3), 246-271.
doi: <https://doi.org/10.30935/cet.590005>
- Boyinbode, O. (2018). Development of a gamification based English vocabulary mobile learning system. *International Journal of Computer Science and Mobile Computing, 7*(8), 183-191. ISSN 2320-088X
- Buckley, P., Doyle, E., & Doyle, S. (2017). Game on! students' perceptions of gamified learning. *Educational Technology & Society, 20*(3), 1-10. doi: 193.1.100.67
- Chambers, G. J., & Yunus, M. M. (2017). Enhancing learners' sentence constructions via "Wheel of Grammar". *Pertanika Journal of Social Sciences & Humanities, 25*(4), 1641-1650. ISSN 0128-7702.
- Chow, A. F., Woodford, K. C., & Maes, J. (2011). Deal of no deal: using games to improve student learning, retention and decision-making. *International Journal of Mathematical Education in Science and Technology, 42*(2), 259-264.
ISSN-0020-739X
- Desnenko, S., Pakhomova, T., Starostina, S., & Tokareva, J. (2021). Gamification in the formation of digital skills of future teachers. *E3S Web of Conferences, 273*(12118), 1-7. doi: 10.1051/e3sconf/202127312118
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: self-determination in personality. *Journal of Research in Personality, 19*(2), 109-134. Doi: [https://doi.org/10.1016/0092-6566\(85\)90023-6](https://doi.org/10.1016/0092-6566(85)90023-6)
- Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268.
doi: https://doi.org/10.1207/S15327965PLI1104_01
- Ding, L, Kim, C. M., & Orey, M. (2020). Design of gamified asynchronous online discussions. *Technology, Pedagogy and Education, 29*(5), 631-647.
doi: 10.1080/1475939X.2020.1801495
- Fulton, J. N. (2019). Theory of gamification – motivation (Doctoral Thesis, William Howard Taft University).
- Hanus, M. D., & Fox, J. (2015). Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance. *Computers & Education, 80*, 152-161.
doi: <https://doi.org/10.1016/j.compedu.2014.08.019>
- Hashim, H., Rafiq, K. R. M., & Yunus, M. M. (2019). Improving ESL learners' grammar with gamified-learning. *Arab World English Journal, 5*, 41-50.
doi: <https://dx.doi.org/10.24093/awej/call5.4>
- Hashim, H. U., Yunus, M. M., & Hashim, H. (2019). Video games: the game changer in teaching writing for ESL learning. *International Journal of Innovation, Creativity and Change, 5*(6), 164-172.
- Ibrahim, N. (2016). Games for teaching grammar to young learners. *Indonesian Journal of Integrated English Language Teaching, 2*(1), 49-63.
- Kijpooonphol, W., & Phumchanin, W. (2018). A comparison between traditional and gamified teaching methods for phrasal verb: a case of grade 10 students. *TESOL International Journal, 13*(3), 56-65.

- Kingsley, T. L., & Grabner-Hagen, M. M. (2018). Vocabulary by gamification. *The Reading Teacher*, 71(5), 545-555. doi: 10.1002/trtr.1645
- Maasum, T. N. R. T. M., Mustafa, R., & Stapa, S. H. (2015). Young learners' perceptions of learning English using language games in a non-formal context. *6th International Conference on Social Sciences* (pp. 11-12), September, III, 104-112. Turkey: Istanbul. ISBN 9788890916335
- Mee, R. W. M., Shahdan, T. S. T., Ismail, M. R., Ghani, K. A., Pek, L. S., Von, W. Y., Woo, A., & Rao, Y. S. (2020). Role of gamification in classroom teaching: pre-service teachers' view. *International Journal of Evaluation and Research in Education*, 9(3), 684-690. doi: 10.11591/ijere.v9i3.20622
- Mekler, E. D., Brühlmann, F., Tuch, A. N., & Opwis, K. (2017). Towards understanding the effects of individual gamification elements on intrinsic motivation and performance. *Computers in Human Behavior*, 71, 525-534. doi: <https://doi.org/10.1016/j.chb.2015.08.048>
- Naggar, E. B., & Berkling, K. (2020). Designing a gamified reading app with pupils in elementary school. In K. M. Frederiksen, S. Larsen, L. Bradley, & S. Thouseny (Eds). *CALL for widening participation: short papers from EUROCALL 2020* (pp. 63-68). doi: <https://doi.org/10.14705/rpnet.2020.48.1166>
- Pazilah, F. N., Hashim, H., & Yunus, M. M. (2019). Benefits of gamification towards different learning styles in language learning. *International Journal of Innovation, Creativity and Change*, 5(6), 81-89.
- Pham, L. L. N., Nguyen, H. T., & Le, V. T. K. (2021). Triggering students' learning autonomy using the combination of M-learning and gamification: a case study at Nguyen Tat Thanh University. *Teaching English with Technology*, 21(2), 66-91. eISSN 1642-1027
- Pektas, M., & Kepceoglu, I. (2019). What do prospective teachers think about educational gamification? *Science Education International*, 30(1), 65-74. eISSN 2077-2327
- Poondej, C., & Lerdpornkulrat, T. (2016). The development of gamified learning activities to increase student engagement in learning. *Australian Educational Computing*, 31(2), 1-16. Retrieved from <http://journal.acce.edu.au/index.php/AEC/article/view/110>
- Rahmani, E. F. (2020). The benefits of gamification in the English learning context. *Indonesian Journal of English education*, 7(1), 2020, 32-47. doi: <http://doi.org/10.15408/ijee.v7i1.17054>
- Rafiq, K. R. M., Hashim, H., Yunus, M. M., & Pazilah, F. N. (2019a). Gamified-learning to teach ESL grammar: students' perspective. *Religacion Revista de Ciencias Sociales y Humanidades*, 4(20), 24-29. ISSN 2477-9083
- Rafiq, K. R. M., Pazilah, F. N., Yunus, M. M., Hashim, H., & Sabri, M. H. M. (2019b). Gamified-learning brings out the hero in you! *Proceedings International Invention, Innovative & Creative Conference*, 2019, 67-71. ISBN: 978-967-17324-4-1
- Sanchez-Mena, A., & Marti-Parreno, J. (2017). Drivers and barriers to adopting gamification: teachers' perspectives. *The Electronic Journal of e-Learning*, 15(5), 434-443. eISSN 1479-4403
- Subhash, S., & Cudney, E. A. (2018). Gamified learning in higher education: systematic review of the literature. *Computers in Human Behavior*, 87, 192-206. doi: 10.1016/j.chb.2018.05.028

- Tan, Y. L. L. (2018). Meaningful gamification and students' motivation: a strategy for scaffolding reading material. *Online Learning*, 22(2), 141-155. doi: 10.24059/olj.v22i2.1167
- Tenorio, T., Bittencourt, I. I., Isotani, S., Pedro, A., & Ospina, P. (2016). A gamified peer assessment model for online learning environments in a competitive context. *Computers in Human Behavior*, 64, 247-263. doi: <https://doi.org/10.1016/j.chb.2016.06.049>
- Tsay, C. H. H., Kofinas, A., & Luo, J. (2018). Enhancing student learning experience with technology-mediated gamification: An empirical study. *Computers & Education*, 121, 1-17. doi: <https://doi.org/10.1016/j.compedu.2018.01.009>
- Vargas-Macias, Z. L., Rodriguez-Hernandez, A. A., & Sanchez-Saenz, C. L. (2020). Digital games (gamification) in learning and training: an approach to adaptation and integration in the classroom. *GIST Education and Learning Research Journal*, 20, 171-188.
- Welbers, K., Konjin, E. A., Burgers, C., de Vaate, A. B., Eden, A., & Brugman, B. C. (2019). Gamification as a tool for engaging student learning: a field experiment with a gamified app. *E-learning and Digital Media*, 16(2), 92-109. doi: <https://doi.org/10.1177/2042753018818342>
- Yacob, N. S., & Yunus, M. M. (2019). Language Games in Teaching and Learning English Grammar: A Literature Review. *Arab World English Journal*, 10(1), 209-217. doi: <https://dx.doi.org/10.24093/awej/vol10no1.18>

Saudi EFL University Students' perceived Linguistic Gains and Learning Experiences in Flipped Classrooms

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Abstract

Despite the much recent research on the flipped classroom model, it is still underexplored in English language teaching in Saudi Arabia. This study investigated how using the flipped classroom model with Saudi female EFL university students could influence their language performance and learning experiences. Therefore, the study attempted to answer the following three research questions: a) to what extent does the use of the flipped classroom in an English reading course influence a group of Saudi female EFL university students' perceived linguistic gains?, b) to what extent does the use of the flipped classroom in an English reading course contribute to fostering these students' language learning experiences?, and c) how do the students evaluate the flipped learning experiences they had?. An entire class of female students who were attending an English reading course at a Saudi university had flipped learning classrooms for four weeks. After having these classrooms, the author interviewed 12 of the students in this class about their flipped learning experiences. The analysis of the interview data showed that the flipped learning experiences the students had improved their performance in English language communication and vocabulary. These experiences also contributed to meeting the students' different language learning styles, helping them understand how to learn independently, and motivating them in their language learning. The study also revealed that collaborative activities, the teachers' support, and the availability of a reliable technological application were the three main factors that played an essential role in improving the students' linguistic gains and enriching their language learning experiences. The study provided some practice recommendations and research suggestions.

Keywords: flipped classroom, reading, vocabulary learning, language learning motivation, learning autonomy

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Introduction

With the increasing integration of technology into educational systems and the availability of more digital resources, there have been increased opportunities for active and student-centred language learning. Therefore, language educators should use this fundamental shift by empowering learner-centred learning and helping students access learning materials online, participate in discussions, share information, and take part in the learning process anytime and anywhere. One of the learner-centred technology-mediated instructional approaches that have gained ground in the last few years is the flipped classroom model. This learner-centred model is based on active, collaborative, and peer-assisted learning principles (Akçayır & Akçayır, 2018). Research has shown that using such a model can foster students' learning performance and skills, motivation, autonomy and engagement (e.g., Al-Zahrani, 2015; Aşıksoy & Özdamlı, 2016; Huang & Hong, 2016; Khanova, Roth, Rodgers, & McLaughlin, 2015).

Despite these benefits, research suggests that implementing the flipped classroom has both opportunities and challenges (Akçayır & Akçayır, 2018). Therefore, it is crucial to identify when the flipped classroom can work more or less effectively in English language learning environments. This study explored how the flipped classroom model could improve Saudi EFL university students' perceived linguistic gains and enrich their learning experiences.

The present study tried to address an important research gap in the Saudi context by implementing the flipped classroom in an EFL university reading course taught to female students. The study explored how integrating the flipped classroom into an English reading course could improve Saudi female EFL university students' linguistic gains and enhance their language learning experiences. Based on this, the study attempted to answer the following three research questions:

1. To what extent does the use of the flipped classroom in an English reading course influence a group of Saudi female EFL university students' perceived linguistic gains?
2. To what extent does the use of the flipped classroom in an English reading course contribute to fostering these students' language learning experiences?
3. How do the students evaluate the flipped learning experiences they had?

Literature Review

Flipped Classroom Model

There have been various definitions of the flipped classroom. For example, Bergmann and Sams (2012) point out that the flipped classroom differs from the traditional one in that what "is traditionally done in class is now done at home, and [what] is traditionally done like homework is now completed in class" (p.13). They also state that what mainly characterizes the flipped classroom is "redirecting attention away from the teacher and putting attention on the learner and the learning" (p. 11). Therefore, it is also called the 'inverted classroom' (Akçayır & Akçayır, 2018).

Despite its diverse definitions and multiple forms, Abeysekera and Dawson (2015) state that the various flipped classroom approaches share the following common characteristics: a) re-distributing in-class and out-of-class time; b) inverting students' learning activities by doing traditional classroom activities such as homework, and replacing traditional homework with classroom activities; c) using a set of pre-class activities and post-class activities; d) implementing

collaborative learning and problem solving in-class activities, and e) making use of technological learning resources.

The above views and perspectives indicate that the implementation of the flipped classroom entails the use of several in-class and out-of-class activities. Reviewing relevant studies, Akçayır and Akçayır (2018) synthesize two lists of in-class and out-of-class activities in flipped classrooms. According to their review, typical in-class activities in flipped classrooms include discussion, collaborative group activities, brainstorming, problem-solving, hands-on experiments, quizzes, students' presentations, and feedback provision. As for out-of-class activities in flipped classrooms, the list includes videos, readings, quizzes, discussions, reflections, homework, research projects, and PowerPoint presentations.

Using these learning activities and flipped instructional scenarios also entails changing the roles of the teacher and learners. In their review of previous research, Ozdamli and Asiksoy (2016) summarize these roles. According to them, the flipped classroom teacher is responsible for creating questioning- and discussion-based learning environments, guiding students' learning and interactions, encouraging students' participation, facilitating learning individualization for each student, identifying appropriate technological tools for students to communicate through, sharing out-of-class learning materials and technological resources, and providing students with feedback (Bergmann & Sams, 2012; Fulton, 2012; Millard, 2012; Nolan & Washington, 2013; Schmidt & Ralph, 2014). As for students' roles, Ozdamli and Asiksoy (2016) listed the following: assuming their learning responsibilities and progressing at their learning speed, taking part actively in teamwork and in-class discussions, watching, listening to, and reading-related learning materials, and preparing for classes (Formica, Easley, & Spraker, 2010; Milman, 2012; Overmyer, 2012).

Previous studies have found many benefits for the flipped classroom. These benefits mainly relate to increasing students' learning outcomes, fostering learning engagement and motivation, making more efficient use of class and practice time, and enabling them to have an individualized and autonomous learning style (for a review, see Akçayır & Akçayır, 2018). On the other hand, research has also found some challenges in the flipped classroom. Such challenges could include: the much time needed for it, lack of teachers' adequate guidance and monitoring, difficulties in modifying students' learning styles and habits, and the low quality of technological resources (e.g., Fautch, 2015; Moraros et al., 2015; Smith, 2013; Wanner & Palmer, 2015; Wilson, 2013, see also Akçayır & Akçayır, 2018).

Previous Research on Using the Flipped Classroom in Language Education

Many studies have been conducted on the use of the flipped classroom in language education. There have also been some reviews of these studies. Reviewing 50 studies experimenting with flipped classrooms in foreign language education, Filiz and Benzet (2018) found that they commonly implemented quantitative data sources and research designs and focused on assessing students' attitudes, evaluations, academic performance, and writing skills. Turan and Akdag-Cimen (2020) also noted that the flipped classroom model had been increasingly researched in English language education environments since 2015. They also found that most of the published studies drew on mixed or quantitative research methods and that speaking and writing were the most commonly researched language areas. On the other hand, Vitta and Al-

Hoorie's (2020) review shows that second language students' learning in flipped classrooms was influenced by their language proficiency rather than age.

Regarding the use of flipped English language classes in the Saudi context, not many studies have dealt with this issue. Each of these few studies focused on a specific language area. The only exception is Najmi's (2020) study, which used the flipped classroom to develop Saudi primary graders' English language achievement. This study used a pre-/post-test design and found a significant impact of the flipped classroom on fostering the students' linguistic achievement.

Ahmed (2016) found that the flipped classroom model positively influenced Saudi EFL university students' writing skills and their language learning attitudes. In another study, Al-Harbi and Al-Shumaimeri (2016) collected quantitative and qualitative using a questionnaire and semi-structured interviews to examine the effect of the flipped classroom model on Saudi female secondary school students' English grammar learning and attitudes. Their study showed that the model played an influential role in enhancing the students' grammar knowledge. Moreover, the students' responses to using the model were positive.

Some other studies have focused on oral-aural skills. Al-Ghamdi and Al-Bargi (2017) investigated the influence of the flipped classroom on Saudi university students' English speaking skills development. In their study, they utilized a quasi-experimental design. They collected data using pre-and post-speaking achievement tests and questionnaires to assess the participants' evaluation of the flipped learning experiences they had. Although Al-Ghamdi and Al-Bargi did not find a positive impact of the experiment on developing the students' speaking skills, their data showed the students' positive attitudes towards their flipped learning experiences and the instructional videos used. Alsmari (2020) also examined the influence of flipped learning on developing Saudi EFL undergraduates' comprehension of conversational implicatures. Her research instruments included: the Oxford Placement Test, a discourse completion test, and reflective e-portfolios. Her study showed improvement in the students' comprehension of conversational implicatures as a result of engaging them in flipped learning experiences. Additionally, these experiences motivated the students to have more independent learning and develop their self-regulated learning skills.

It can be noted in the above studies about the use of the flipped classroom in English language education are of quantitative nature. They also covered several language areas but neglected others. One of these neglected areas is reading. Therefore, we need to explore using the flipped classroom in English reading lessons drawing on qualitative data. Such a qualitative approach is consistent with Vitta and Al-Hoorie's (2020) view that flipped classroom future research should move "beyond asking whether flipped learning is effective too when and how its effectiveness is maximized" (p. 1).

Methods

To answer the research questions, the study depended on collecting qualitative data through semi-structured interviews and drawing on qualitative data aimed at deeply exploring the female students' language learning perceptions and experiences.

Participants

One entire reading class of female university students was exposed to the flipped classroom method, but only 12 students were selected randomly from this class for data collection. The data was collected from 12 students only rather than the whole class due to the nature of semi-structured interviews, which require a lot of time and effort to record, transcribe and analyze. The 12 participants were all Saudi female EFL students and they were studying English as their major at a Saudi university. During the data collection, these students were in their first year of study at Imam Mohammad Ibn Saud Islamic University. All the participants graduated from governmental schools before joining the university; i.e., they only received intensive English instruction when starting to study their university major. The students' ages ranged from 19 to 20 years. They were all excellent users of technology, and technological devices and applications. Moreover, they were able to easily access the Internet at their university and home during the data collection stage. All the participants agreed to voluntarily take part in the study and informed consent was obtained from them.

Research Instruments

As indicated above, the study depended on the semi-structured interview to collect the data and answer the research questions. The semi-structured interviews were used to elicit the students' perceptions and attitudes towards the model. The guiding questions of the interviews were developed based on the purpose of the study. First, the author worked independently on developing the questions, and she consulted her research supervisor about them. The supervisor approved the questions but suggested some minor modifications, which were made in some of them. In the end, the semi-structured interviews had nine main guiding questions. These questions focused mainly on identifying the Saudi female EFL university students' perceptions of the linguistic gains they potentially had from studying the flipped reading classes, how far the flipped classroom model enriched their language learning experiences, and their evaluation of the flipped learning experiences they were exposed to (see the interview guiding questions in appendix 1). Before conducting the interviews at the end of the experiment, these questions were translated into Arabic to facilitate the students' task in communicating their answers as it was expected that some students would have problems in communicating their ideas clearly in English.

The Implementation of the Flipped Classrooms

The flipped classrooms were implemented over four academic weeks. The reading course selected for implementing the model was taught for three hours a week; i.e., the total time of the flipped in-class activities was 12 hours. The author had first to find a reading course whose teacher is familiar with the flipped classroom model and capable of and enthusiastic about using its tools and activities. After finding a female teacher with this desired experience and enthusiasm, the author discussed with her the goals of the research project and how it would be conducted and explained to her the points she needed to focus on during the implementation.

Two weeks before implementing the method, the teacher familiarized the students with the flipped classroom model and explained to them its characteristics and how it differs from traditional classes. She also introduced the students to Edmodo, an educational platform used for providing students with the needed resources at home and helping them to learn collaboratively

and discuss the assigned tasks, and access their assignments and grades. The teacher implemented each flipped classroom through the following ten steps:

1. Dividing the class into groups of four members and identifying the role of each member in the group (i.e., the leader, reader, writer and editor);
2. Sending the audio-recorded reading lesson in advance to the students through Edmodo;
3. Sharing primary learning materials and posting the descriptions of the assigned activities through Edmodo;
4. Posting extra resources, PowerPoint files and YouTube videos for enriching students' learning;
5. Encouraging the students to participate through the application to participate in learning discussions by raising questions or posting opinions and notes;
6. Monitoring the students' performance of the homework tasks and supporting them when needed;
7. Meeting with the students in the reading classes, answering their questions about any points they were unable to understand well in the text or assignments at home, discussing the Youtube videos with them; and asking a student from each group at a time to read and a part of the assigned text and explain their understanding of it;
8. Getting the students to answer the reading comprehension questions in groups and the vocabulary exercises worksheets individually;
9. Checking the students' participation in the two assessment tasks by walking around the class and providing any needed encouragement or feedback;
10. Reminding the students of what would be discussed in the following class and the homework tasks assigned.

Data Collection and Analysis Procedures

After implementing the flipped classrooms over the four weeks, the author collected the semi-structured interviews. She interviewed the 12 students in two days; every six students were interviewed in one day. In addition to the above guiding interview questions, the author asked the students follow-up ones depending on their answers. The students were interviewed in Arabic, and all the interviews were audio-recorded. Each interview lasted for about 20 to 25 minutes. After collecting the data, the author translated the students' answers from Arabic into English. The author read the translated interviews several times to identify the emerging themes. The initial data analysis categories were revised and refined. The students' responses to some questions were also counted.

Findings

The results of the data analysis are presented in the following three parts. Each part is related to one research question.

Perceived Linguistic Gains

Two guiding interview questions (two and three) were concerned with knowing the students' perceptions of the linguistic gains they obtained from the flipped learning experiences. Concerning interview question 2 "*how far has the model helped you improve your English language performance?*", three students noted they did not feel any notable improvement in their language skills as a result of the flipped classrooms. On the other hand, nine students said that these flipped experiences helped them develop their language performance. Two students in the first group generally agreed that they did not notice any gains in their English because the time of implementing the flipped classrooms (i.e., four weeks) was limited, and the third student said this was due to the in-class activities which did not meet her expectations:

- I guess if the method had lasted for a longer time, my English and speaking skills would have been improved.
- My English hasn't improved because the teacher focused on groups of students in each flipped classroom and because of the limited time.

On the other hand, the students who answered the interview question positively attributed their language development to three factors: out-of-class time, group activities and individual vocabulary exercises. For example:

- Learning at home and the many homework assignments increased our confidence to speak.
- Group activities helped us be like the good students in my group.
- This method improved my ability to speak in this course and other courses.
- The vocabulary exercises I had to answer on my own helped me to communicate more on social media applications.

As for the answers to the third interview question, which was about the language area or areas they felt improved while having the flipped learning experiences, the students mentioned two specific areas, which were learning more vocabulary and developing better oral communication performance. For example:

- The weekly list of vocabulary posted on Edmodo helped us know more about new English words, their definitions and uses in different examples, and also the group work helped exchange information about these words.
- What I liked most was the vocabulary exercises because they were more focused. They helped me build many sentences, speak with people outside the classroom and in communicating with others on social media applications.
- At home, I wrote notes and underlined difficult words to ask the teacher about them. Reading the passage in advance allowed more extended time to speak with the teacher and friends.
- The cooperative students in my group helped me eliminate my shyness and participate in class discussions. Speaking with my colleagues encouraged me to talk aloud with the teacher.

It can be noted from the above answers that the collaborative or group activities were vital to improving the students' English vocabulary and oral communication. In addition, the group activities also helped them over speaking anxiety and increased their confidence in their English speaking ability.

Students' Beliefs about their Flipped Learning Experiences

The students' answers to the guiding interview questions one, four, five, and six were used to determine their beliefs about and attitudes towards the learning experiences they had in the flipped classrooms. These questions assessed the students' general beliefs about the flipped learning experiences and how far these experiences influenced their learning language styles, autonomy and motivation.

In the students' answers to the first interview question, which asked them about what they generally acquired from the flipped classroom model, ten students mentioned that they learned some study skills from the model, such as how to use different information sources to know about specific topics, how to find information themselves, and how to get prepared for their university classes. However, two of the 12 students said that the model was complicated, for them because it required many tasks to do. Still, they preferred to focus only on the information available on Edmodo and the textbook.

The fourth interview question aimed at exploring how the flipped classrooms affected the English language learning style outside the school "*how far has this flipped method affected your language learning style outside the classroom? Please explain if it has helped you become more visual, auditory, social, or kinesthetic in your language learning*". The answers to this question showed that the model met the students' various language learning styles. Four students mentioned they depended more on visual learning through YouTube videos, pictures, graphics, PowerPoint files and worksheets. Three mentioned relying more on auditory learning through listening to the audios posted on Edmodo. Three other students mentioned they liked to learn in groups to find help and support from their classmates, and two students preferred to do the learning activities individually. On the other hand, five students mentioned that the method implemented did not match their kinesthetic learning style. They said the model should have included different in-class activities such as competitive language learning games or fun activities.

The fifth interview question was related to how the flipped learning experiences have contributed to the students' language learning autonomy. The ten students who had a positive attitude towards the flipped learning experiences said that these experiences have contributed to their independent learning by helping them be aware of how to search for the information related to their study and training them in self-learning and organizing homework tasks. Contrarily, the two students with a negative attitude towards the flipped experiences mentioned that the model did not impact their learning autonomy positively due to the many homework tasks it required. For example, one of them said:

- This method required much time. Before each class, I had to spend half an hour reading the text and about two hours doing other things such as reading extra references, using Edmodo, participating in online activities, and completing assignments. All this affected the time I devoted to other courses and my daily activities.

For the ten students who said that the flipped classrooms have contributed to their autonomous learning, technology was the most crucial factor in this autonomy. According to the students, their self-learning was enhanced through Edmodo which was an efficient tool for sharing our personal

views and comments, discussing the assignments and doing other tasks, and accessing the teacher's posted course materials such as audio-recorded lessons, PowerPoint files and YouTube videos.

The students' answers to the sixth guiding question of the interviews indicated that the significant impact of the flipped classrooms they had was on their language learning motivation and engagement. According to the students, the most essential factor in their motivation and engagement in the flipped classrooms was the group or collaborative work. They mentioned that this collaborative work was good because group members benefited from each other and exchanged information, had the opportunity to express themselves and personal views, played changing roles for learning tasks each week, and developed better relationships with each other as group members.

Students' Evaluation of the Flipped Classroom Experiences

The students' answers to the guiding interview questions seven eight and nine were used to understand their evaluation of the flipped classroom experiences. Concerning the students' responses to question seven, which asked them about their overall assessment of learning reading using flipped classroom experience, ten students answered this question positively. They referred to the different reasons why they liked the flipped learning experiences. These reasons were: having a more enjoyable learning experience and avoiding boredom in the class (n = 3 students), participating actively in class discussions and being able to organize time and priorities at home (n = 2 students), and having language learning opportunities appropriate to their different levels (n = 2 students), possessing better language ability self-confidence due to coming to the class well-prepared for what to be discussed (n = 2 students), and having a more active role in the learning process instead of being instructed by the teacher all the time (n = 1 student). The following interview answers include examples of these reasons:

- The flipped classrooms improved our class discussions and helped us organize our time and priorities.
- This method increased our enthusiasm and broke class boredom.
- I think this method is excellent because it has many aspects which match our different levels in English.
- Of course, coming to the university prepared for the reading class increased our self-confidence.

In contrast, the two students with a negative view of the flipped classroom model mentioned that reading and other homework tasks took a long time, which prevented them from enjoying family gatherings and daily activities.

Regarding the students' answers to question eight, which asked them about the issues that can be considered to improve the effectiveness flipped classroom method and increase its efficacy, the 12 students said some things that need improvement. The things they mentioned were: implementing the flipped model for one whole semester (n = 3 students), decreasing the number of homework assignments (n = 3 students), using another technological application (n = 2 students), and varying the language levels of the students in one group (n = 2 students), adding a fun element to the activities (n = 1 student), and minimizing group activities (n = 1 student). It

can be noted that the students' answers varied according to their different understanding of the model and its functions.

Finally, the students' answers to the final interview question, which was about their opinions about the teacher's support, showed they had a general satisfaction with the teacher's roles in the flipped classrooms. Ten students expressed their positive attitudes towards the teacher's roles and assistance. They agreed that the teacher was encouraging, supportive, cooperative, and a good feedback provider, and that she helped them learn independently, which made us feel relaxed and confident. These comments are consistent with what the literature says about the essential role of the teacher in flipped classrooms. Two students, however, pointed out that despite the teacher's hard work, she focused on certain students who were good at speaking and neglected others. It is important to mention that the two students who referred to this point had a generally negative attitude towards the flipped classrooms. This could, in general, mean that this model may be inappropriate for some students.

Discussion

This study implemented the flipped classroom in EFL reading classes over four weeks at a Saudi university to investigate how this would influence the students' linguistic gains and foster their language learning experiences. The interviews with the students showed that the flipped learning experiences resulted in improving their performance in English language communication and vocabulary. As for the enrichment of the students' language learning experiences, the study found that flipped classrooms contributed to meeting their different language learning styles, making them aware of some study skills, helping them understand how to learn independently, and motivating them in their language learning. The students' interviews indicated that the collaborative activities, the teachers' support, and the availability of a reliable technological application (i.e., Edmodo) were the important factors that helped the students have these linguistic and language learning gains. These gains were generally mentioned by ten of the 12 students. Regarding the students' evaluation of the flipped classrooms, they generally evaluated them positively but referred to some issues for improving their effectiveness in future occasions. The most important issues that need improvement were: implementing the flipped model for one whole semester, varying the language levels of the students in one group, and minimizing the number of homework assignments or negotiating these with them.

The results of this study are consistent with previous research findings, which also showed the effectiveness of the flipped classroom in developing EFL learners' performance (Ahmed, 2016; Al-Harbi & Al-Shumaimeri, 2016; Alsmari, 2020; Najmi, 2020). They also support what the literature says about the benefits of the flipped classroom model (Akçayır & Akçayır, 2018). On the other hand, the results indicated some challenges of the effective flipped classroom implementation. These challenges were: the longer time needed for it and the difficulties in modifying students' learning styles and habits (e.g., Fautch, 2015; Moraros et al., 2015; Smith, 2013). The two problems were explicitly evident in the answers of the two students with a negative attitude toward the flipped classroom model. These issues should be considered in future occasions when implementing the flipped classroom model. In addition, some students also talked about the need for varying the language proficiency levels of students in the group. This also should be considered by the teachers using the model.

Conclusion

Some recommendations can be made in light of the results of the present study. First, there is a need to raise teachers' awareness of the flipped classroom model. This can take the form of intensive training or even a one-day workshop. Such activity can lead to the effective implementation of the flipped model at Saudi universities. Second, the English language courses delivered at Saudi universities should include a number of tasks that direct the learning responsibility to students in order to guarantee better learning outcomes. Teachers should also make use of both collaborative and individual tasks and also in-class and homework assignments in their language courses. Varying course lessons in this way will meet the various language learning styles of students. It is also the responsibility of curriculum designers and textbook writers to integrate practical tasks for enhancing students' independent learning. Finally, EFL teachers need also to pay attention to the importance of utilizing technology in their classes. The flexibility technology provides to learners is the crucial element towards their autonomous learning.

Some issues remain to be explored in future flipped classroom research in language learning environments. While the present study evaluated the effect of the flipped classroom on fostering EFL students' linguistic gains and learning experiences, further research is needed to deal with other variables that mediate this impact, such as students' differences or language proficiency. The studies involving both male and female students may also yield more significant and varied differences. Besides, we need to explore the challenges that teachers and students encounter in a flipped classrooms. Combining qualitative and quantitative data sources such as interviews with questionnaires or questionnaires with classroom observation may provide insightful data about these difficulties. Future research could also investigate flipped learning issues with larger samples of participants and over a longer time. It is recommended that future flipped learning research in Saudi Arabia focuses on participants of different backgrounds (i.e., Saudi and non-Saudi) and different educational levels such as school or university stages. Investigating all these issues will give a clear picture of how the flipped classroom model works better in the Saudi educational context.

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References

- Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: Definition, rationale and a call for research. *Higher education research & development*, 34(1), 1-14.
- Ahmed, M. A. A. A. (2016). The Effect of a flipping classroom on writing skill in English as a foreign language and students' attitude towards flipping. *US-China Foreign Language*, 14 (2), 98-114.
- Akçayır, G., & Akçayır, M. (2018). The flipped classroom: A review of its advantages and challenges. *Computers & Education*, 126, 334-345. Doi: <https://doi.org/10.1016/j.compedu.2018.07.02>

- Al-Ghamdi, M., & Al-Bargi, A. (2017). Exploring the application of flipped classrooms on EFL Saudi students' speaking skill. *International Journal of Linguistics*, 9(4), 28-46.
- Al-Harbi, S., & Alshumaimeri, Y. (2016). The flipped classroom impact in grammar class on EFL Saudi secondary school students' performances and attitudes. *English Language Teaching*, 9(10), 60-80.
- Al-Zahrani, A. M. (2015). From passive to active: The impact of the flipped classroom through social learning platforms on higher education students' creative thinking. *British Journal of Educational Technology*, 46(6), 1133-1148.
- Alsmari, N. (2020). The effect of flipped classroom instruction on developing Saudi EFL learners' comprehension of conversational implicatures. *International Journal of English Linguistics*, 10(2), 107-127.
- Aşıksoy, G., & Özdamlı, F. (2016). Flipped classroom adapted to the ARCS model of motivation and applied to a physics course. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(6), 1589-1603.
- Bergmann, J., & Sams, A. (2014). Flipping for mastery. *Educational Leadership*, 71(4), 24-29.
- Fautch, J. M. (2015). The flipped classroom for teaching organic chemistry in small classes: Is it effective? *Chemistry Education: Research and Practice*, 16(1), 179-186.
- Filiz, S., & Benzet, A. (2018). A content analysis of the studies on the use of flipped classrooms in foreign language education. *World Journal of Education*, 8(4), 72-86
- Formica, S.P., Easley, J.L. & Spraker, M.C., (2010). Transforming common-sense beliefs into Newtonian thinking through just-in-time teaching. *Physics Education Research*, 6, 1-7.
- Fulton, K. (2012). Upside down and inside out: Flip your classroom to improve student learning. *Learning & Leading with Technology*, 39(8), 12-17.
- Huang, Y. N., & Hong, Z. R. (2016). The effects of a flipped English classroom intervention on students' information and communication technology and English reading comprehension. *Educational Technology Research & Development*, 64, 175-193.
- Khanova, J., Roth, M. T., Rodgers, J. E., & McLaughlin, J. E. (2015). Student experiences across multiple flipped courses in a single curriculum. *Medical Education*, 49(10), 1038-1048.
- Millard, E. (2012). 5 reasons flipped classrooms work. *University Business*, 26-29.
- Milman, N. (2012). The flipped classroom strategy: what is it and how can it be used? *Distance Learning*, 9(3), 85-87.
- Moraros, J., Islam, A., Yu, S., Banow, R., & Schindelka, B. (2015). Flipping for success: Evaluating the effectiveness of a novel teaching approach in a graduate level setting. *BMC Medical Education*, 15(27), 1-10.
- Najmi, A. H. (2020). The effect of FCL approach on students' achievement in English language in Saudi Arabian southern border schools. *International Education Studies*, 13(9), 66-74.
- Overmyer, J. (2012, September/October). Flipped classrooms 101. *Principal*, 46-47.
- Ozdamli, F., & Asiksoy, G. (2016). Flipped classroom approach. *World Journal on Educational Technology: Current Issues*, 8(2), 98-105.
- Nolan, M. A., & Washington, S. S. (2013). Flipped out: Successful strategies for improving student engagement. *Paper presented at Virginia Tech's Conference on Higher Education Pedagogy, Blacksburg, VA.*
- Schmidt, S. M., & Ralph, D. L. (2014). The Flipped classroom: A twist on teaching. *The Clute Institute*, 98-104.

- Smith, J. D. (2013). Student attitudes toward flipping the general chemistry classroom. *Chemistry Education: Research and Practice*, 14(4), 607-614.
- Turan, Z. & Akdag-Cimen, B. (2020). Flipped classroom in English language teaching: a systematic review. *Computer-Assisted Language Learning*, 33(5-6), 590-606, Doi: 10.1080/09588221.2019.1584117
- Vitta, J., & Al-Hoorie, A. (2020). The flipped classroom in second language learning: A meta-analysis. *Language Teaching Research*. Doi: <https://doi.org/10.1177/1362168820981403>
- Wanner, T., & Palmer, E. (2015). Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers & Education*, 88, 354-369.
- Wilson, S. G. (2013). The flipped class: A method to address the challenges of an undergraduate statistics course. *Teaching of Psychology*, 40(3), 193-199.

Appendix (1). The guiding questions of the semi-structured interviews

1. Please tell me how you have found the flipped classroom method and what you have mainly learned from it.
2. How far has the model helped you improve your English language performance?
3. Which language area or areas do you think improved a lot while having these flipped learning experiences?
4. How far has this flipped method affected your language learning style outside the classroom? Please explain if it has helped you become more visual, auditory, social, or kinesthetic in your language learning.
5. Do you think you have become autonomous in your English language learning after having these flipped learning experiences? If so, which aspect of the flipped method has helped you become an independent language learner?
6. Have you found yourself more motivated while having these flipped learning experiences? If so, which aspect of the flipped method has helped you become a more motivated language learner?
7. Overall, do you like having an English reading course using the flipped classroom method? Why or why not?
8. Do you think there are some issues we need to consider to improve the effectiveness flipped classroom method? Why or why not?
9. Do you have any comments about your teacher's role in the flipped learning experiences you had? In other words, how far has she helped you in your language learning processes?

Higher Education in Times of Pandemic: An Exploration of Teachers and EFL Learners' Perceptions of the Shift to Online Instruction Option

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Abstract

E-learning is, for the time being, receiving significant attention in the literature on English as a foreign language (EFL) learning. It has emerged during the Covid-19 pandemic as a fundamental rescue attempt. This paper intends to contribute to this debate by highlighting some of the strong points and downsides obtained from this new learning initiative. It also discusses the main reasons behind the students' reluctance to learn via the internet and examines the impact of learning on both teachers and learners in the Algerian Higher Education Settings. The researcher focused on the teachers' and learners' perceptions of the new asynchronous online teaching mode and also tried to show how Moodle operated as a substitute for traditional courses. The author carried out a qualitative and quantitative study using questionnaires, and an interview to analyze students and teachers' perceptions and experiences with this instructional model. The findings provide insights into how students and instructors perceived and utilized this learning format. The suggested recommendations show that our awareness-raising approach, if taken into account, can enlighten learners, help teachers get more familiar with this type of learning and better engage in technology literacy, and urge the decision-makers to reconsider the utility of diversifying the teaching/learning modes of delivering knowledge in the area of tertiary education.

Keywords: Algerian Higher Education, Covid-19 pandemic, EFL learners, e-learning, perceptions, university learners

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Introduction

At any time and under any circumstances, education will always remain a basic human right. Education implies essentially acquiring moral values and intellectual ones to gain a profound knowledge of an array of subjects to serve human beings. When education opportunities are provided equally, this can lead to personal stability, societal security, and economic development. Through education, people learn to address and resolve crises and to make the difference between what is beneficial and what is harmful. Thus, being educated allows us to keep our planet a safer and peaceful place even during hard times and specific situations. The world still remembers when the Hiroshima bombing occurred on August 06th, 1945 and when schools opened again in October 1945. Japanese survivors reported that their classes remained held in open-air classrooms for years revealing the paramount role of education and the high necessity to place it among the top priorities. This paper tries to show learners and teachers' perceptions of online teaching during the pandemic and aspires to raise the awareness of the higher education community to ensure a variety of teaching possibilities to help all those involved in the education sphere get ready for any possible scenarios in the future.

Background

Since our world went through the most critical times in its history because of the widespread of covid-19 coronavirus pandemic (Dubey et al., 2020), and to preserve the right to education during this delicate time, higher education institutions all over the world were prompted to shift to remote emergency teaching. It is important to acknowledge that among the main benefits of technology is to illuminate our comprehension and improve the world around us. Therefore, Covid-19 has helped teachers, learners, and all those involved in the sphere of education how to take profit from our networked world since the ongoing and evolving global Covid-19 restrictions have heightened the importance of online teaching and learning in higher education broadly and international education particularly (Dwivedi et al., 2020). During the outbreak, like many countries all over the world, Algeria adopted a new way of delivering knowledge to university learners. It decided to transfer learning to an online stage because the 2020 pandemic has catapulted the style and practice of teaching and learning into the tech arena quite forcefully (Taylor, 2020). Nonetheless, as we are not familiar with the process, both students and teachers have to encounter barriers to adopting online classes (Gopal et al., 2021).

Foreign language classrooms are described as being venues for real-life language use and require learners to show involvement in the teaching/learning process. Many studies show that teacher-learner interactions promote linguistic creativity, encourage language acquisition, and give rise to motivation. Indeed, teacher-student interactions are among the remarkable aspects that help student engagement in the classroom (Wang & Eccles, 2013; Furrer et al., 2014; Quin, 2017; Wang & Derakhshan, 2021). Yet, the new virtual instructional method prevents them from being active and animated.

This asynchronous learning is a mode through which learners acquire knowledge at distinct times and from dissimilar locations. To compare this model with face-to-face education, Alawamleh et al. (2020) believe that most students prefer traditional direct courses in the classroom instead of virtual classes; supporters of this view argue that it's a modality that limits students' interactions with their instructors. Moreover, students cannot also engage with a considerable number of materials. In Algeria, as in many other parts of our planet, Covid-19 as a

global event has impacted students' cognitive load and led them to deal with new study habits. Teachers were also obliged to cope with a novel workload. In an attempt to make this distant teaching a successful experience, significant issues have to be identified to try to fix these problems and decrease or remove the impediments faced by teachers as well as the learners. This digest intends to demonstrate some of the main difficulties experienced by faculty members and their students over the emergency remote phase. In this respect, this study seeks to answer the following research questions:

- What are the English teachers' perceptions of online instruction during the pandemic?
- What are the English learners' attitudes towards the new online instructional delivery in times of pandemic?

We hypothesize that:

- Teachers seem to develop negative attitudes towards the online instructional option.
- There appears to be some reluctance on the part of the learners to become involved in these web-led distance courses.

A Shift from Traditional Classrooms to Internet Platforms

There is ample evidence that the educational implications of E-learning have shown a noticeable controversy among educationalists and scholars.

Trying to highlight some benefits of E-learning, we can say it encourages:

- Having access to course content at any time which allows the learners to review the lessons whenever they desire.
- Gaining much more time as some students do not need to follow the pace of learning of other peers.
- Saving lives in specific times like a pandemic. Thus, learners receive knowledge from the comfort of their homes without moving to their institutions' locations.
- Selecting and focusing on the critical parts of the lesson to better memorize information without being obliged to deal with the whole learning material.
- Offering an environmental-friendly teaching system that does not harm the environment as it reduces the use of sheets of paper and copybooks to a vast extent. Therefore, EFL teachers at the university of Oran2 have to cope with this emergency. For this purpose, they are advised to reinforce their computer skills and to acquire these abilities. They are not obliged to be experts in the area of computer sciences, as stated by Ko and Rossen (2017), who argued that a basic familiarity with computers and the internet will more than suffice. That means how to do the following:
 1. Set up folders and directories on a hard drive.
 2. Use word-processing software properly (for instance, cut, copy, and paste, minimize and maximize windows; save files).
 3. Handle email communications, including attachments.
 4. Use a web browser such as Chrome, Safari, Internet Explorer, or Firefox to access the internet, including multimedia resources like YouTube, and to navigate between windows and tabs.

5. Download and upload: that is, retrieve a file from your institution's computer network or from the internet or learning management system and save it on your own computer, and having made changes or created a new document or image, be able to transmit it back to your online class site (Ko & Rossen, 2017, p.18).

Thus, being equipped with these capabilities can allow teachers to enter the online platforms with comfort and more confidence. Conversely, the observed downsides of E-Learning can be cited as follows:

- Lack of social interaction.
- Overuse of technological means.
- Problems with internet connection.
- The psychological state of learners (such as demotivation and lack of confidence).

Objectives of the Study

This research intends essentially to:

- Highlight the teachers' and learners' views on E-learning.
- Offer a discussion about the role of E-learning in the Algerian context.
- Examine teachers' and students' coping feedback with the new virtual teaching format.

Methodology Design

Context and Participants

This research took place at the University of Oran² within the department of English right after the start of in-person classes. The study targeted 08 English teachers and one teacher covering computer sciences courses, all operating at the same institution and a total of 575 learners. The great majority of them, 526 are third year LMD students, and 49 are Master II graduates.

This research investigates all these respondents' views about the implementation of e-learning during the Covid-19 period. Data were collected by administering a questionnaire to the students and conducting an interview with the teachers.

Questionnaires were designed and given to the learners because they constitute a medium of remote conversation between researcher and respondent (Brace, 2018). They have also been viewed as data gathering instruments that continue to play a unique role in producing data on attitudes and behaviors for which there is no viable alternative (Beatty, 2020).

Considered as helpful data collection means, interviews were utilized since it is claimed that researchers conducting personal interviews may be able to build rapport with respondents, leading them to develop a sense of trust and to be open in their responses (Milder, 2017).

Main Findings

Learners' Questionnaire

The totality of learners (100%) declared that they've never pursued online classes, which they described as unusual and strange. Almost all the learners (98, 56%) asserted that they did not try to check their courses because they were not acquainted with this type of teaching. Many of them contended that they did not have the desire to enter Moodle platform and have a look at their

courses. Students claimed that the feedback was not received from the teacher within the required time. The analysis of the students' questionnaire shows that most (97, 56%) of them were in favor of face-to-face instruction; they pointed out that the physical presence of the teacher in class provides a feeling of safety and readiness to learn. They highlighted the massive difference between being within the classroom, where everything is under the control of the teacher and strict rules are implemented and followed by everyone, and being in front of a screen (mobile, tablet, or personal computer) left to your own devices, without being controlled by anyone. While only 1, 91% consider that digital platforms can also facilitate learning and enhance learning outcomes, 98, 09% insist that nothing can replace the classrooms that they describe as environments that promote their focus, inspiration, and confidence. Nearly all the respondents, 97, 21%, expressed their strong desire to encourage blended learning.

Teachers' Interview

All teachers (100%) revealed that they had never taught online before the pandemic. They also expressed their satisfaction concerning the importance given by the government and the role it played in assisting them and to all university learners. Approximately all the interviewed participants (88, 88%) mentioned the impossibility of establishing through distant education regulations and instructions to be followed, which will prevent learners from grasping and respecting the sense of discipline, and this, according to them, may have negative impacts on their behaviors and academic gains. The totality of the informants asserted that uploading courses only from a platform can be very problematic for learners who require live clarification and specific assistance. The whole participants acknowledged the pressing need to rethink online education, find out ways to up opportunities for live queries, optimize safe and interpersonal interactions, and promote effective communication.

Discussion

The results indicate a credibility gap regarding online teaching. Students seem to prefer the traditional option that includes learning in groups, getting assignments, taking exams and tests, and attending classes regularly. Teachers opined that despite online courses' key role in disseminating knowledge, it should be noted that they have led to several hindrances. They also added that while posting lectures online has been a contributing tool during the outbreak, it has also created some downsides and this is due to a high dependency on the internet among their colleagues and the students as well. The findings disclosed a range of themes.

Discussion of the Learners' Questionnaire

The students' narratives reflected the following broad headings:

1- Interruption:

The participants claimed that they could not manage to work for a long time and concentrate on the content of their courses without interruption. One of the informants opines:

“With the temptation to answer a call or to check my email, I had trouble reading attentively and thoroughly my courses.”

2- Passive Learning as a Habit:

Results reflected that students' negative attitudes towards online learning had become a culture and a habit to which they had become accustomed. For most of them, listening to a lecture and getting knowledge with the guidance of a teacher is their preferred learning style. A considerable number of students made the following statement:

“Sitting on the benches, listening to a teacher with attention, posing questions, and engaging in discussions with him/her provides us with more confidence.”

3- Low Flexibility to Suit New Conditions:

Most of the respondents declared that they were unable to suit new conditions of learning and revealed that time management was among the faced constraints.

4- Unavailability of Resources:

Students could not move to the library and did not have access to academic resources. In addition, they stated that many beneficial electronic resources were not downloadable, and it was impossible to get access to them.

The results reflected that EFL students prioritize face-to-face teaching and interaction with their peers over online modality.

Discussion of Teachers' Questionnaire

The teachers' responses have accentuated the following points:

1- Old Practices, New Contexts:

There is a growing recognition that education is changing, and change is always accompanied by uncertainty, fear, and anxiety. Some teachers contended that they felt uncomfortable when obliged to break up with their old practices and adopt unfamiliar ones.

2- Absence of Immediate Feedback:

According to the teachers, in the area of language teaching, feedback has a fundamental role since it helps teachers understand whether the learner got the message entirely or not. Yet, in e-learning environments, the feedbacks are asynchronous, and the students cannot discover their mistakes in a short time. It is recognized that when exposed to new concepts and new learning versions without being guided by teachers, the learners can make many mistakes.

They believe that their students' reluctance may be due to the following components:

- . Poor quality of Internet connection was a discouraging factor.
- . Increase in social isolation.
- . Absence of teacher/learner interaction.
- . Lack of well-planned guidance.

3- Absence of Communication:

Teachers claimed that this internet-based way has led to the non-existence of communication between them and their learners, which has resulted in learners' misunderstanding their courses and instructors' failing to meet their students' expectations.

4- Difficulties to Monitor Students' Progress:

The respondents declared that good monitoring ensures a well-planned follow-up to check how the learners develop so that teachers can make any necessary changes, and it helps the students stay on track and perform better.

5- Unfamiliarity with Online Teaching:

Since all teachers revealed that they have no experience with e-learning, this can cause real obstacles that can hamper the effectiveness of the courses and lead to professional (classes transferred online) and psychological (anxiety, social distancing) challenges.

Significant Considerations

However, it's important to mention that the launch of E-learning via our universities' platforms (The Case of the University of ORAN2) has shown possibilities for developing other learning models. These instructional modalities can help learners improve their skills to adapt to the 21st-century transformations and change their behaviors about the manner they learn and their expectations about the future of higher education.

This educational experience also seems to have increased the sense of sharing responsibilities between teachers, officials, learners, and parents, intending to ensure a better quality teaching that satisfies the students' demands, meets the teachers' aspirations, and comforts parents.

This leads us to think about creating unique teaching models that can cope with new circumstances and new environments (Zoom, Google Meet, etc.).

It should be noted that despite the many drawbacks of internet-based courses cited by the learners who took part in this study, some vital points were also raised by them, such as:

- Getting used to independent work.
- Learning to meet deadlines.
- Reinforcing their technology literacy.

Conclusion

We believe that with the emergence of covid-19, governments in general and their higher education establishments, in particular, have started to grasp the utility of adopting new ways of imparting knowledge to the students in specific and challenging times and have begun to look for other alternatives and better practices and e-learning has come to the forefront of those alternatives. It was observed that the findings of this study revealed a considerable level of dissatisfaction balanced by requests for forceful engagement in various online formats. We insist that we should circulate increased attention and awareness among our colleagues. We also need to consider future directions for particular work in the area. Additionally, we must create opportunities such as organizing conferences and workshops to voice and challenge our beliefs about e-learning.

To recap, there are multiple things that we have learned from this experience, including the following:

- Trying to be prepared for any possible advent.
- Encouraging better teaching facilities.
- Involving all the contributors in the education sector, including the parents to participate in the advancement and well-being of the Algerian university, Algerian teacher, and Algerian learner.
- Diversifying the teaching models by providing other options for learning. It should be noted that in live courses, teachers and students can establish a real community of knowledge, something we don't believe online courses ever will.

We conclude that further research must be undertaken to explore e-learning effects on teachers and learners deeply. Until this happens, we recommend teachers, researchers, and decision-makers to re-examine the existing delivery methods to be prudent that we do not replicate the weaker facets we've come across when navigating in online teaching, and to capitalize the merits and minimize the limitations.

About the Author

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References

- Alawamleh, M., Al-Twait, L.M., & Al-Saht, G.R. (2020). The Effect of Online Learning on Communication between Instructors and Students during Covid-19 Pandemic. *Asian Education and Development Studies*. <https://doi:10.1108/AEDS-06-2020-0131>
- Beatty, P.C., Collins, D., Kaye, L., Padilla, J-L., Willis, G.B., & Wilmot, A. (2020). *Advances in Questionnaire Design, Development, Evaluation, and Testing*. USA: John Wiley and Sons Inc.
- Brace, I. (2018). *How to Plan, Structure and Write Survey Material for Effective Market Research*. (4th ed.). GB: Kogan Page Ltd.
- Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S., Dubey, M. J., Chatterjee, S., et al. (2020). Psychosocial Impact of COVID-19. *Diabetes Metab. Syndr. Clin. Res. Rev.*, 14 (5), 779–788. <https://doi:10.1016/j.dsx.2020.05.035>
- Dwivedi, Y., Hughes, L., Coombs, C., Constantiou, I., Duan, Y., & Edwards, J.S. (2020). Impact of Covid 19 Pandemic on information management research and practice: Transforming education, work and life. *International Journal of Information Management* 55. <https://doi.org/10.1016/j.ijinfomgt.2020.102211>
- Furrer, C.J., Skinner, E.A., & Pitzer, J.R. (2014). The Influence of teacher and peer relationships on students' classroom engagement and everyday motivational resilience. *Natl. Soc. Study Educ.* 113, 101-123.
- Gopal, R., Singh, V., & Aggarwal, A. (2021). Impact of Online Classes on the Satisfaction and Performance of Students during the Pandemic Period of COVID 19. *Educ. Inf. Technol.*, 1–25. <https://doi:10.1007/s10639-021-10523-1>
- Ko, S., & Rossen, S. (2017). *Teaching Online: A Practical Guide*. New York: Routledge.
- Milderd, L.P. (2017). *Questionnaire Research: A Practical Guide* (4th ed.). New York: Routledge.
- Quin, D. (2017). Longitudinal and contextual associations between teacher-student relationships and student engagement: a systematic review. *Rev. Educ. Res.* 87, 345–387. <https://doi:10.3102/0034654316669434>
- Taylor, D. (2020). *21st Century Pedagogical Approaches*. UK: Independent Publishing Network.
- Wang, M.T., & Eccles, J.S. (2013). School Context, achievement motivation, and academic engagement: a longitudinal study of school engagement using a multidimensional perspective. *Learn. Instr.*, 28, 12-23. <https://doi:10.1016/j.learninstruc.2013.04.002>

- Wang, Y.L., & Derakhshan, A. (2021). *Book Review: Investigating dynamic relationships among individual difference variables in learning English as a foreign language in a virtual world*, by M. Kruk System. <https://doi:10.1016/j.system.2021.102531>
- Xie, F., & Derakhshan, A. (2021). A Conceptual review of positive teacher interpersonal communication behaviors in the instructional context. *Front. Psychol.*, 12, 1-10. <https://doi:10.3389/fpsyg.2021.708490>

Teaching and Learning English as a Foreign Language Speaking Skills through Blackboard during COVID-19

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Abstract

The COVID-19 pandemic has shifted English teaching to online platforms, such as Blackboard Collaborate, but whether online platforms affect the acquisition of core English language skills like speaking has yet to be studied extensively in the Saudi context. This study addressed and analyzed the perceptions of English as a foreign language instructors and students at the University of Jeddah, Saudi Arabia concerning the use of Blackboard Collaborate to develop speaking skills through an explanatory sequential mixed-method design. In the first phase, participants completed an online cross-sectional questionnaire for the quantitative approach. Data analysis revealed positive perceptions of speaking skill development through Blackboard Collaborate among both students and instructors. Female students and less experienced instructors reported more satisfaction with learning English through Blackboard Collaborate than male students and experienced instructors, respectively. In Phase 2, the researcher conducted in-person interviews with 10 instructors and 10 students, focusing on three areas: the Blackboard Collaborate user experience, instructors' and students' beliefs, and the challenges of and suggested improvements for Blackboard Collaborate. Instructors and students were fully aware of how to use the platform, and their motivation to use it was very high. This study further uncovered how Saudi students have shifted their learning style from passive to active learning following the student-centered approach. It also highlights the benefits Saudi women gained, as they were more comfortable practicing conversation through Blackboard Collaborate and the avoidance of cultural barriers. Studying the effects of culture on language learning through technology is a necessary direction for future research.

Keywords: Blackboard Collaborate, COVID-19, distance learning, educational technology, English as a foreign language, online teaching, speaking skill, English language teaching

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Introduction

The University of Jeddah was established in 2014 in the Makkah region of Saudi Arabia. It contains 16 colleges on the main campus in Jeddah, with two branches in Al Kamel District and Khulis District. Each branch has three colleges, for a total of 22 colleges. The main university has one female college for language and translation and an English language center, and Khulis and Al Kamel each have an English department. The COVID-19 pandemic brought about global changes, and to fight the spread of the virus, the Saudi government enforced a curfew and soon shifted education online, instead of continuing physical attendance in schools. These circumstances led the University of Jeddah to use Blackboard Collaborate (BB) as the main online platform to deliver education to students during the pandemic.

Every prescribed course for the English language major program is now taught on BB. First-year students are required to attend a preparatory program with intensive courses in English before joining English language departments. In their second year, students must take extra courses such as listening, speaking, reading, and writing. English as a foreign language (EFL) instructors now have to deliver all these skills through BB, and they face certain challenges.

Most Saudi students join universities with low English proficiency (Hamouda, 2013). Because many EFL public school teachers lack the proficiency to communicate effectively in the target language (Al-Hazmi, 2008), focusing on the speaking skills of students who join Jeddah University is essential. Some researchers have stated that learning through BB is an effective tool to improve EFL students' achievements (Aldosari, 2013; Almelhi, 2021), with others confirming the positive impact of BB on student performance (Ali, 2017; Almoeather, 2020; Hamad, 2017); however, to the best of the researcher's knowledge, no research has investigated the practice of teaching or learning speaking skills using BB.

Thus, in this study the researcher investigated the effectiveness of teaching and learning speaking skills through BB, to determine both instructor and student perspectives and explain current teaching practices. The current research addressed the following main questions:

- What are EFL instructors' perceptions of their teaching practice of English-speaking skills using BB?
- What are EFL students' perceptions of their learning practice of English speaking skills through BB?

These two main questions can be divided into the following questions:

- How do EFL instructors teach English speaking skills through BB?
- How do EFL students learn English speaking skills through BB?
- Are there any statistical differences between EFL students' responses across their gender?
- Are there any statistical differences between EFL instructors' responses across their working experience, qualifications, or gender?

Literature Review

EFL researchers have stated that learning English is essential. Alqarni (2015) mentions three main reasons for this; English has become an international language, is the language of science and technology, and of modern inventions and discoveries. In particular, speaking has been

shown to be a crucial skill in learning a foreign language (Bahadorfar & Omidvar, 2014; Leong & Ahmadi, 2017; Tuan & Mai, 2015; Zyoud, 2016).

Challenges to Teaching and Learning Speaking

Learning to speak a foreign language is not an easy task for many educators (Aleksandrak, 2011; Namaziandost & Nasri, 2019), but teachers and learners alike face multiple challenges, including an emphasis on teaching literacy skills (reading and writing), grammar, and vocabulary over speaking (Bahrani & Soltani, 2012). Other studies have observed psychological obstacles, lack of topical knowledge, low participation, finding suitable words or expressions to speak in the target language, focus on the mother tongue, low self-confidence, inadequate practice, and less exposure to the target language (Azlan et al., 2019; Leong & Ahmadi, 2017; Tuan & Mai, 2015). Madbouly (2004) identified reasons behind Arabic government schools in the Arab world neglecting EFL speaking skill acquisition including an emphasis on teaching reading and writing, teachers who lack speaking proficiency, a lack of real-life speaking materials in course books, and the practice of preparing students not to be fluent speakers of English but to be good at written exams. Al-Sobhi and Preece's (2018) study at a Saudi school in Malaysia indicated that teachers faced challenges such as absence of listening and speaking tests, non-communicative methodology, student attitudes toward speaking, and a lack of necessary facilities. Meanwhile, students faced challenges such as a lack of linguistic knowledge, low motivation and confidence, and excessive use of their native Arabic language.

Suggestions to Improve Teaching and Learning Speaking

Several researchers and educators in the field have offered suggestions for improving and developing speaking skills education. Madbouly (2004) suggests using authentic materials, providing oral exams, changing teachers' attitudes toward speaking as a skill, and motivating students to develop oral skills. Aleksandrak (2011) emphasized that productivity, purposefulness, and interaction should be considered when preparing speaking tasks for EFL classes. Leong and Ahmadi (2017) suggested having a friendly and cooperative environment for speaking, and more speaking activities to increase students' participation in the classroom. Azlan et al. (2019) noted that Instagram and task-based activities motivate students, boosting interest in English speaking practice. Mantra and Maba (2018) indicated that EFL learners enjoy the use of folktale-based instruction, and found that such instruction improved learners' speaking skills in the second cycle of teaching sessions. Namaziandost and Nasri (2019) showed that frequent use of social media has a significant impact on teaching and learning speaking. Nazara (2011) suggested the need to create a friendly environment to improve speaking. Zyoud (2016) suggested methods to develop speaking such as dialogues, role-plays, conversation groups, and foreign language clubs.

Technology Usage in Teaching Speaking Skills

Some educators show interest in the use of classroom technology for language teaching, specifically speaking. Bahadorfar and Omidvar (2014) suggested tools such as the Internet, podcasts, video conferencing, and speech recognition software to improve EFL learners' speaking skills. Jalaluddin (2016) also supported the use of technology, suggesting the use of YouTube videos inside and outside the classroom to improve learners' speaking skills in the target language. Alqarni (2016) asserted that educators must adopt new language-learning strategies and appropriate technology.

Some researchers suggest that using appropriate technology is not enough, citing factors such as technology availability and teacher training. In Saqlain et al.'s (2013) study in Saudi Arabia on teachers' readiness to integrate technology for language learning, most participants complained about a lack of funding, scarcity of technology at schools, and lack of proper user training.

BB Usage in Language Learning

Although many studies have been conducted on technology-mediated language learning, more recent studies have focused on using BB for language learning. BB is a web-based learning management system that provides users with opportunities to manage courses, and assisting with assignments, projects, and evaluations (Ali, 2017; Almoether, 2020). The system helps teachers deliver instruction online, including live sessions, asynchronous modes of delivery, and interactive tools (Hussein, 2016). Students also benefit from the system by viewing recorded lectures, participating in live discussions, and interacting with instructors and peers (Tawalbeh, 2018).

BB Usage in Tertiary Education Institutions in Saudi Arabia

BB is used extensively in Saudi universities. Although most studies have been conducted in EFL teaching and learning, some focused on areas other than BB. Almoether's (2020) quantitative study at Princess Nourah Bint Abdulrahman University showed that both BB and Edmodo are effective in improving students' self-regulated learning. In Hamad's (2017) study, Saudi students agreed that BB helped them in a blended learning environment, as they had regular contact with their instructors and received prompt feedback from them. In contrast, Al-Drees et al.'s (2015) study showed minimal BB use by undergraduate medical students at Taibah University because of technical difficulties. The same study indicated a dire need for training staff and students in BB use. Using semi-structured interviews, AlKarani and Thobaity (2020) found that most medical staff at Taif University are satisfied with BB, regardless of disadvantages, such as teaching only practical subjects. Students also emphasized the need for BB use training.

Researchers at Saudi Arabian universities have studied the effects of BB on EFL teaching and learning. Ali's (2017) mixed-method study at the University of Bisha showed that BB was a more motivating factor among English department students compared to traditional methods. In a similar study by Al-Jabry et al. (2014) at King Khalid University, Abha, participants agreed that BB helps make coursework accessible, flexible, and teachable, and is more student-centered than teacher-based.

In terms of academic writing, Fageeh and Mekheimer (2013) showed that students who used BB for communication had a more positive attitude toward productivity, collaboration, and participation. Another study (Hussein, 2016) found that female students at Hail University have a positive attitude toward using BB to improve their language skills.

Perceptions of the BB Learning System

Researchers have also investigated students' and teachers' perceptions of BB learning systems. Mohsen and Shafeeq (2014) confirmed EFL teachers' positive attitudes toward BB usage in language teaching. In Pusuluri et al.'s (2017) study, students from the Department of English at Al Jouf University liked the flexibility of learning through BB and stated that it provided them with learning variety in their courses. Tawalbeh's (2018) study at Taif University found that most

instructors had not used BB in the past but were interested in using it because of its effectiveness. Basabrin (2019) also noted positive attitudes toward the use of BB from both EFL instructors and students. In a study at Hafr Al-Batin University, Ibrahim et al. (2019) also identified positive attitude toward BB implementation among faculty.

Method

As this research used mixed methods, the researcher used two different instruments: a survey, and face-to-face interviews. The researcher conducted the quantitative analysis by distributing the survey among the assigned sample. After collecting the quantitative data, the researcher analyzed the data, and moved onto the second phase. During the qualitative second phase, the researcher interviewed 20 participants to investigate the findings from the survey and gain a better understanding of the practices behind teaching and learning speaking skills. This study followed an explanatory sequential design. It started with the quantitative phase as a cross-sectional questionnaire-based study on a selected cohort of EFL teachers and students using an online portal to collect data. This was followed by the qualitative face-to-face interviews phase.

Setting

The study included a convenience sample of English language teachers and students.

Research Participants

The researcher invited EFL instructors and students at the University of Jeddah to participate. Participants were chosen randomly from the English language departments at the College of Languages and Translation, the College of Arts and Science at the Khulis and Al Kamel branches, and the English language center at the main campus. The survey was distributed among 25% of the target population, for a total of 864 students and 67 teachers included in the first phase. After the quantitative data was collected and analyzed, 10 students and 10 instructors were chosen through purposive sampling to be interviewed face-to-face.

Instruments

The questionnaire was divided into two sections and sent to the participants electronically. One survey was created for instructors, and the other for students. The first section of each survey collected data on teacher and student perceptions of teaching and learning practices through BB. The second section collected data related to issues with and obstacles to teaching and learning speaking through BB. A 5-point Likert scale was used throughout the questionnaire (1: extremely agree, 5: extremely disagree).

Semi-structured interviews were conducted immediately following survey completion and analysis. Thirty instructors and students participated in the interviews.

Data Analysis

The researcher used R-Statistical Software version 3.4.1 (R Core Team, 2020) to analyze survey data. Manual coding was used to analyze data collected from interviews. Categorical data (i.e., educational level, sex, and work experience) were summarized using frequencies and displayed using tables and bar graphs. Negatively worded questions such as “My teacher doesn’t give us a chance to practice speaking through BB” had their results recalculated before summation. Numerical continuous data, such as the sum of the survey results levels, were summarized using

means and standard deviations and displayed using box-and-whisker plots. The adjusted effect of categorical variables on the outcome variable (sum of the survey results) was determined using multiple Poisson generalized linear regression modeling (Hayat & Higgins, 2014). The level of significance was set at $p < 0.0027$. This was because we needed to use the Bonferroni correction to allow for multiple statement-by-statement comparisons between students and instructors (Francis & Thunell, 2021).

Results

Phase 1: Quantitative Research

The quantitative data showed that students and instructors held positive perceptions of using BB. There was also a significant difference in the overall score between men ($M = 64.5$) and women ($M = 64.7$), and $p = 0.00006944$ using Poisson regression analysis. There were 36 female instructors (53.7%) and 31 male instructors (46.3%). Fifteen participants were PhD holders (22.4%), 44 were M.S. holders (65.7%), and 8 were B.S. graduates (11.9%). Twelve (17.9%) participants had less than 5 years of experience, 14 (21%) had 6–10, and 16 (23.9%) had 16 or more.

Students' Characteristics

The total number of students included in the study was 864, with a response rate of 100%. Female students were 439 (50.8%), and male students were 425 (49.2%). See Table 1 for a detailed account of students' baseline characteristics.

Table 1. *Baseline Demographics of the Student Participants*

Factor	Male students mean	Female students mean	t-test value	P value
Total Learning Experience	64.5	66.7	3.978	<0.0001
My teacher uses different strategies to teach us speaking skills through BB	3.89	4.10	2.811	0.0051
My teacher uses the virtual lab to teach us speaking	3.69	3.92	2.823	0.0049
I participate effectively during speaking session through BB	3.847	3.852	0.069	0.9448
I engage in live discussion with my virtual classmates easily and regularly	3.77	3.91	1.653	0.0987
My teacher does not give us a chance to practice speaking through BB	2.01	1.65	4.991	<0.0001
I participated in group activities to practice speaking skills through BB	3.66	3.67	0.137	0.8912
My teacher does not encourage us to participate in the speaking session through BB	1.85	1.69	2.159	0.0312
I participated in peer activities to practice speaking skills through BB	3.38	3.55	1.922	0.0549
I have received proper training on how to use BB to learn English language speaking skills	3.52	3.59	0.865	0.3874
I face technical problems while learning through BB.	3.67	3.53	1.557	0.1199
I do not like to participate in speaking virtual classes through BB	2.93	2.87	0.621	0.5351
I think it is difficult to learn English speaking through BB.	2.88	2.82	0.549	0.5829
I think BB offers a lively and interesting way to learn English speaking skills.	3.58	3.54	0.529	0.5973

I feel anxious when the teacher is recording my voice while I am participating in conversation lessons	2.89	2.79	1.072	0.2841
I believe learning English speaking through BB is NOT useful.	2.35	2.11	2.636	0.0086
My teacher ignores teaching us speaking skills through BB	1.95	1.79	2.031	0.0426
I get bored of participating in speaking sessions with others through BB	2.58	2.46	1.405	0.1603
My teacher speaks more than the students in the class	3.06	2.76	3.423	0.0006

A scale of 18 items was used to quantify the experience of learning speaking through BB. It has excellent internal consistency (Cronbach's alpha = 0.89, 95% CI: 0.87–0.90). The mean overall score for students was 3.65 (indicative of a somewhat favorable learning experience).

Male students agreed with “My teacher doesn't give us a chance to practice speaking through BB” more often than female students (M estimates were 2.01 and 1.65, respectively, $p < 0.0001$). Furthermore, male students scored “My teacher speaks more than students in the class” higher than their female counterparts (M scores were 3.06 and 2.76, respectively, $p = 0.0006$). There was a significant difference in the total overall score between men ($M = 64.5$) and women ($M = 66.7$), $p = 0.00006944$ using Poisson regression analysis.

Teachers' Characteristics

The total number of teachers included in the study was 67. A scale of 18 items was used to quantify the experience of teaching speaking skills through BB. The scale had excellent internal consistency (Cronbach's alpha = 0.84, 95% CI: 0.79–0.90). The mean overall teaching score for teachers was 3.29 (indicative of a somewhat favorable teaching experience). The total number of female teachers in the current study was 36 (53.7%), with 31 (46.3%) men. See Table 2 for a comprehensive display of the teachers' baseline characteristics.

Table 2. *Baseline Demographics of the Study Participants*

Factor	Male teachers (%)	Female teachers (%)	t-test value	P value
Count	31 (46.3%)	36 (53.7%)		
Work experience				
1-5 years	3	9	X ² = 7.239 (DF=5)	0.2035
6-10 years	4	10		
11-15 years	5	3		
16-20 years	8	8		
21-30 years	6	3		
31-40 years	5	3		
Qualification				
B.S.	2	6	X ² = 6.3836 (DF=2)	0.0411
M.S.	18	26		
PhD	11	4		
Total Teaching Experience	60.38	58.22	0.3751	0.3751
I teach speaking easily through BB	3.45	3.39	0.2362	0.8141
I use different strategies to teach speaking skills through BB	3.52	3.61	0.4331	0.6664
I use different teaching methods to teach speaking skills through BB	3.71	3.22	2.1345	0.037
I believe BB does not support the student-centered approach	2.80	2.94	0.5615	0.5765

I use group activities to teach speaking skills	3.55	3.44	0.3680	0.7141
I use peer activities to teach speaking skills	3.48	3.61	0.4883	0.627
I speak most of the time during the speaking session and the students speak less	2.65	3.08	1.6006	0.1146
I do not focus on teaching speaking through BB	2.23	2.64	1.5916	0.1164
I engage in live discussion with my students easily	3.55	3.19	1.3245	0.1901
I think my students do not participate in my speaking sessions for technological difficulties	2.74	3.00	0.9846	0.3285
Students do not engage effectively during the speaking classes	3.03	3.44	1.4593	0.1499
I believe teaching speaking through BB is beneficial for students	3.23	3.17	0.2277	0.8206
I think BB offers a vital and interesting way of teaching and learning speaking skills	3.13	3.44	1.1957	0.2364
My students feel free and safe to participate through BB	3.548	3.556	0.0271	0.9784
I found some difficulties to convince my students to participate in my class through BB	3.06	3.17	0.3432	0.7325
I believe my students do not have the culture of learning online especially through BB	3.033	3.028	0.0188	0.9851
I have received proper training on how to use BB to teach speaking skills	3.42	3.39	0.1264	0.8998
I face technical problems while using BB	2.65	2.50	0.5700	0.5706

Only work experience of 6–15 years was associated with a statistically significant reduction in teaching experience through BB. The incidence rate ratio (IRR) was 0.8913 (i.e., a reduction of 10.8% in teaching experience score compared to newly appointed teachers with < 5 years of experience); $p = 0.0288$ for the 6–10 years of experience category and $p = 0.0036$ for the 11–15 years of experience category. Conversely, only the 21–30 years of experience category was associated with a statistically significant increase in teaching experience through BB. The IRR was 1.1498 (i.e., a rise of 15% in teaching experience score compared to the newly appointed teachers with < 5 years of experience), and $p = 0.0219$. See Table 3 for the adjusted estimates of the background effects on teachers' BB experience.

Table 3. *Estimates for the Effects of Background Demographic Factors on Teachers' Blackboard Collaborate Experience*

Factor	IRR	95% CI IRR	Estimate	SE	T value	P value
Gender: Male	1.0390	0.9707 to 1.1121	0.038241	0.034692	1.1023	0.270328
Education: M.S.	1.0249	0.9216 to 1.1396	0.024557	0.054158	0.4534	0.650232
Education: PhD	0.9288	0.8226 to 1.0487	-0.07385	0.061935	-1.1924	0.233096
Work Experience: 6-10	0.8913	0.8039 to 0.9881	-0.11509	0.052637	-2.1865	0.028781
Work Experience: 11-15	0.8295	0.7315 to 0.9407	-0.18693	0.064179	-2.9126	0.003584
Work Experience: 16-20	1.0781	0.9677 to 1.2011	0.075221	0.055115	1.3648	0.172317
Work Experience: 21-30	1.1498	1.0204 to 1.2955	0.139559	0.060895	2.2918	0.021916
Work Experience: 31-40	0.9726	0.8642 to 1.0946	-0.02778	0.060302	-0.4607	0.645034

Note. IRR = incidence rate ratio; CI = confidence interval; SE = standard error.

Sections of the Teacher Questionnaire

Section One

The first section included teachers' perception of the teaching practices through BB, which consisted of ten statements above; the mean score was 33.6 points (out of a maximum score of 50 points). The median score was 36 points, ranging from 12 to 45 points. Male teachers scored a mean of 34.2 points, only marginally higher than female teachers, whose mean score was 33.1 points. This difference was not statistically significant ($t = 0.6378$, $p = 0.5261$). Axis one was substantially lower (regarding teachers relatively new to the profession) in those with shorter work experience of 6–10 years (IRR = 0.8678, $p = 0.0436$) and 11–15 years (IRR = 0.8125, $p = 0.0154$). Other factors were not significantly affected.

Section Two

This section included issues with and obstacles to teaching speaking skills through BB, which consisted of eight items; the mean score was 25.7 points (out of a maximum score of 40 points). The median score was 25 points, ranging from 13 to 35 points. Male teachers scored a mean of 26.2 points, only marginally higher than female teachers, whose mean score was 25.2 points. This difference was not statistically significant ($t = 1.0362$, $p = 0.3052$). None of the background factors were significantly associated with the second axis of issues with and obstacles to teaching through BB.

See Tables 4 and 5 for a detailed display of the adjusted estimates for background factors on both axes 1 and 2 in terms of teachers' experience with BB.

Table 4. *Estimates for the Effects of Background Demographic Factors on Teachers' Axis One*

Factor	IRR	95% CI IRR	Estimate	SE	T value	P value
Gender: Male	1.0345	0.9453 to 1.132	0.0339	0.0460	0.7365	0.4614
Education: M.S.	1.0055	0.8747 to 1.1559	0.0055	0.0711	0.0772	0.9385
Education: PhD	0.9068	0.7730 to 1.0639	-0.0978	0.0815	-1.2002	0.2300
Work Experience: 6-10	0.8678	0.7561 to 0.9960	-0.1418	0.0703	-2.0176	0.0436 *
Work Experience: 11-15	0.8125	0.6869 to 0.9611	-0.2076	0.0857	-2.4224	0.0154 *
Work Experience: 16-20	1.0988	0.9527 to 1.2673	0.0942	0.0728	1.2936	0.1958
Work Experience: 21-30	1.1410	0.9735 to 1.3373	0.1319	0.0810	1.6285	0.1034
Work Experience: 31-40	0.9931	0.8498 to 1.1606	-0.0069	0.0795	-0.0870	0.9307

Note. IRR = incidence rate ratio; CI = confidence interval; SE = standard error.

* $p < .05$

Table 5. *Estimates for the Effects of Background Demographic Factors on Teachers' Axis Two*

Factor	IRR	95% CI IRR	Estimate	SE	T value	P value
Gender: Male	1.0448	0.9421 to 1.1586	0.0438	0.0528	0.8300	0.4066
Education: MSc	1.0521	0.8932 to 1.2392	0.0508	0.0835	0.6079	0.5432
Education: PhD	0.9596	0.7960 to 1.1569	-0.0412	0.0954	-0.4321	0.6657
Work Experience: 6-10	0.9220	0.7891 to 1.0773	-0.0812	0.0794	-1.0222	0.3067
Work Experience: 11-15	0.8517	0.7045 to 1.0298	-0.1605	0.0969	-1.6571	0.0975
Work Experience: 16-20	1.0510	0.8909 to 1.2399	0.0497	0.0843	0.5898	0.5553
Work Experience: 21-30	1.1610	0.9687 to 1.3915	0.1493	0.0924	1.6160	0.1061
Work Experience: 31-40	0.9457	0.7890 to 1.1337	-0.0558	0.0925	-0.6032	0.5464

Note. IRR = incidence rate ratio; CI = confidence interval; SE = standard error.

Sections of the Student Questionnaire

Section One

The first section included students' perceptions of teaching practices through BB, which consisted of nine items; the mean score was 29.98 points (out of a potential maximum score of 45 points). The median score was 31 points, ranging from 9 to 45 points. Male students scored a mean of 29.7 points, only marginally lower than female students, whose mean score was 30.2 points. This difference was not statistically significant ($t = 1.6153, p = 0.1066$).

Section Two

The second section included issues, problems, and obstacles of teaching and learning speaking through BB, which consisted of nine statements above; the mean score was 31 points (out of a potential maximum score of 45 points). The median score was 32 points, ranging from 10 to 45 points. Male students scored a mean of 30.4 points, substantially worse than female students, whose mean score was 31.7 points. This difference was statistically significant ($t = 12.5657, p = 0.01047$).

Inferential Statistics

The researcher used the Poisson generalized linear regression analysis to explore the effect of teacher-related background factors (gender, experience, and qualification) on their BB English teaching experience. The researcher summed all the scores for their survey results and modeled the sum per the basis of Poisson regression (Table 3).

Only work experience of 6–15 years was associated with a statistically significant reduction in teaching experience through BB. The incidence rate ratio IRR was 0.8913 (i.e., a reduction of 10.8% in teaching experience score compared to the newly appointed teachers with < 5 years of experience); $p = 0.0288$ for the 6–10 years of experience category and $p = 0.0036$ for the 11–15 years of experience category. Conversely, only the 21–30 years of experience category was associated with a statistically significant increase in teaching experience through BB. The IRR was 1.1498 (i.e., a rise of 15% in teaching experience score compared to the newly appointed teachers with < 5 years of experience) and $p = 0.0219$.

Figure 1 shows that overall teaching experience through BB did not differ substantially according to background qualification. The mean scores were 60.1, 58.8, and 59.9 for B.S., M.S., and PhD holders, respectively; $p = 0.893$.

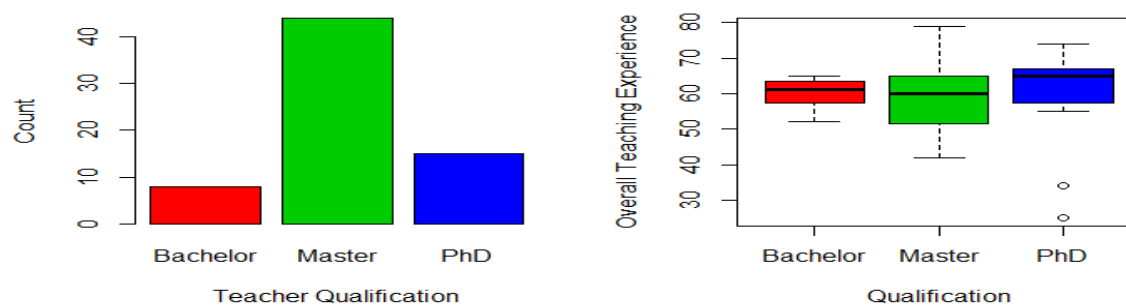


Figure 1. Distribution of teachers' Blackboard Collaborate according to qualification

Figure 2 shows that teaching experience was significantly impactful in terms of BB teaching. The < 5 years of experience group scored 60.5, compared to 6–10 years of experience ($M = 54.2$) and 11–15 years of experience ($M = 49.8$); $p = 0.000348$.

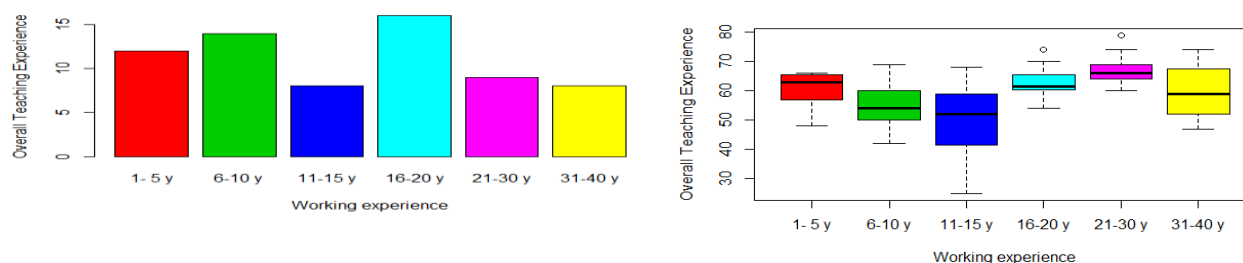


Figure 2. Distribution of teachers' overall score according to work experience

As shown in Figure 3, there were 439 female students (50.8%), and 425 male students (49.2%). There was a significant difference in the overall score between men ($M = 64.5$) and women ($M = 64.7$); $p = 0.00006944$ using Poisson regression analysis.

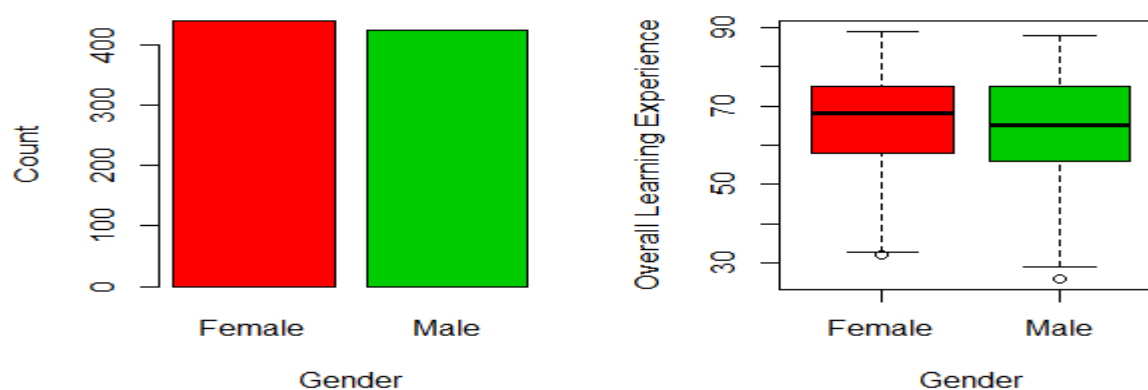


Figure 3. Distribution of students' learning experience by gender

Figure 4 demonstrates the results of multiple regression modeling of the adjusted background factor effects on the overall English teaching experience score using BB. Only work experience of 6–15 years was associated with a statistically significant reduction in teaching experience through BB. The IRR was 0.8913 (i.e., a reduction of 10.8% in teaching experience score compared to the newly appointed teachers with < 5 years of experience); $p = 0.0288$ for the 6–10 years of experience category and $p = 0.0036$ for the 11–15 years of experience category. Conversely, only the 21–30 years of experience category was associated with a statistically significant increase in teaching experience through BB. The IRR was 1.1498 (i.e., a rise of 15% in teaching experience score compared to the newly appointed teachers with < 5 years of experience) and $p = 0.0219$.

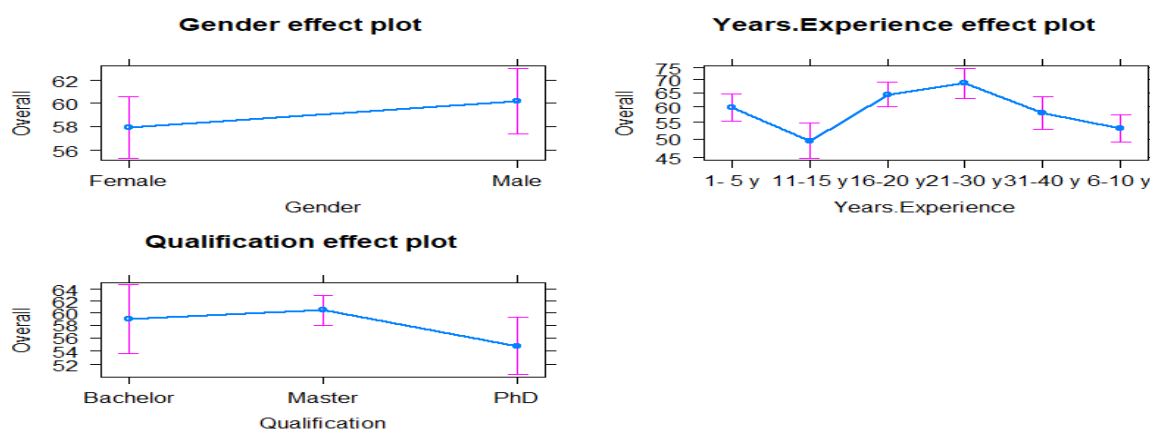


Figure 4. Multiple regression results for the effect of gender, qualification, and work experience on teacher Blackboard Collaborate experience

Figure 5 shows that regarding Axis 1 students’ perception about teaching practice through BB, male students scored a mean of 29.7 points, only marginally lower than female students whose mean score was 30.2 points. This difference was not significant statistically ($t = 1.6153, p = 0.1066$). However, in terms of Axis 2 issues, problems and obstacles of teaching and learning speaking through BB, male students scored a mean of 30.4 points, substantially lower than female students whose mean score was 31.7 points. This difference was statistically significant ($t = 12.5657, p = 0.01047$).

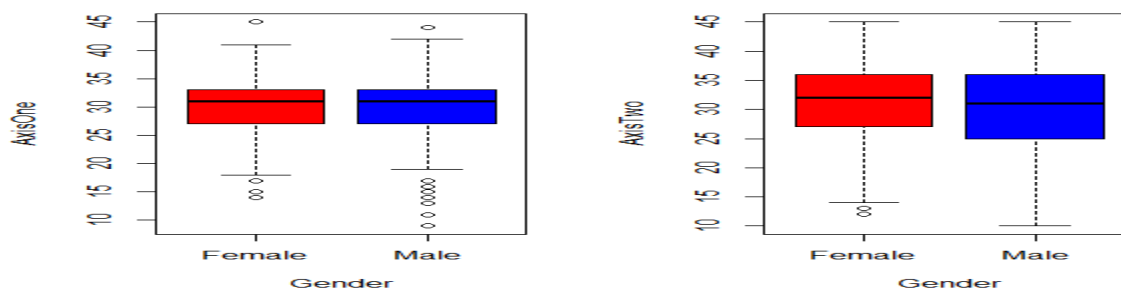


Figure 5. Axis 1 and 2 of students’ Blackboard Collaborate experience divided by gender

Discussion

This study identified positive perceptions of teaching speaking skills through BB. Different studies share similar results and approaches of using different methods as positive prescriptions for using online learning tools (Alqarni, 2017) and BB in particular (Mohsen & Shafeeq, 2014; Tawalbeh, 2018). Both students and instructors favored the overall learning and teaching experience, consistent with Basabrin’s (2019) findings.

Another point acknowledged is that older teachers have difficulties using operating software, computer programs, and technology (Wang et al., 2018). In this study, a longer work experience of 6–15 years was associated with worse attitudes toward online teaching, which is in agreement with the aforementioned study.

Seraji et al. (2017) found a statistically significant relationship between teacher age and attitude toward technology. Meanwhile, different research studies have shown that new teachers feel positively toward online learning. In this study, newly appointed teachers were similarly far more satisfied with online teaching.

Interestingly, the researcher found that female students were more satisfied with learning English through BB. This was related to cultural and social beliefs and attitudes. This was also supported by other studies, such as Dang et al. (2016). Female students had a significant effect on their perceived achievement and pleasure, and this effect had a significant effect on their learning satisfaction. However, for males, no significant effect on perceived achievement or enjoyment was seen in the computer's self-efficiency (Dang et al., 2016). Chudowsky and Chudowsky (2010) showed that female students' overall learning scores exceeded male students' scores. Alghazo (2006) explained that female students seemed to have more positive attitudes toward web-enhanced instruction than male students.

Phase Two: Qualitative Research

The information gathered through the interviews largely corroborated that gathered through questionnaires. The following discussion provides a well-informed overview of the key concepts. The researcher divided the topics based on the coding results from the collected qualitative data. The three areas are using BB to teach speaking, instructor and student beliefs, and the challenges of and suggested improvements to the platform.

Using BB to Teach Speaking

It was clear from the interview results that teachers used certain strategies to teach speaking through BB (Mohsen & Shafeeq, 2014). Students' motivation to learn English through BB is high (Mohsen & Shafeeq, 2014; Ali, 2017). The researcher found from the interview transcripts that teachers followed the student-centered approach, which is supported by Alqarni (2017). One teacher said, "The current situation [COVID-19] pushed us to let students learn by themselves." In addition, BB provided teachers with an excellent feature that allowed them to create student groups. A teacher explained that he was well trained in creating learning groups through BB. He said, "I can easily create groups and monitor their learning by supporting and correcting if necessary."

Instructors' and Students' Beliefs

Interestingly, the researcher found that 100% of the interviewed instructors and students held a positive belief in using BB in teaching English. Similar results have been found by Kinash et al. (2012), Ali (2017), and Khafaga (2021). Integrating technology in teaching and learning is an asset, but sometimes it has some obstacles (Kinash et al., 2012). Both students and instructors confirmed that they liked and enjoyed using BB in language teaching and learning. A student said, "I like to use BB in learning how to speak English because no one can see me when I speak." A teacher said, "I can see that we teach with joy and our students are really active participants." Importantly, a female student mentioned that "I prefer to continue using BB rather than physically attending class because I don't get shy when I participate online... Sometimes in real classes, students laugh at each other when they make mistakes." BB also removed the physical constraints

of space and time, as stated by some teachers and students. A teacher said, "I can teach from home or even another country at any time or any stage."

Challenges of and Suggested Improvements to BB

Some research shows that using technology in teaching and learning can bring about some challenges, including: Internet availability, speed, and connection; lack of IT skills and facilities; and training issues (Alqarni, 2015). However, most instructors and students in this study assumed that they could overcome those difficulties over time by receiving help from the IT department. IT departments at universities play a vital role in assisting both instructors and students with BB. Another way to improve the use of BB is to activate synchronous discussion to support learning outcomes (Hussein, 2016).

Conclusion

BB use in teaching and learning in Saudi universities is not new. However, few studies have focused on the use of BB and its effect on English speaking skill acquisition in a Saudi context. This research was conducted to fill that gap and gain a deeper understanding of the use of BB and its effect on student speaking proficiency. The results show that both instructors and teachers hold a positive attitude toward using BB for online lessons. Instructors also followed a student-centered approach because of mandatory BB use.

The researcher highly recommends that institutions train their instructors and students to use BB to achieve better EFL teaching and learning outcomes. Female students prefer to use BB while learning English language speaking due to cultural barriers. The BB platform allows these students to participate and get full credit. However, the researcher discovered some challenges that could hinder learning and teaching, such as Internet availability, speed, and connection. There is also a lack of IT skills and training facilities.

The researcher recommends that new universities in Saudi Arabia establish IT departments to follow up on BB platforms and provide immediate assistance to instructors and students. This study was conducted in the first term of 2020 in Jeddah University with male and female students. Therefore, the researcher recommends that researchers in language acquisition and related fields should conduct studies on similar topics in the university setting using other methods to validate these outcomes.

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Conflicts of Interest

The author reports no conflicts of scientific or financial interest that can be associated with this study.

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References

- Al-Drees, A., Khalil, M. S., Meo, S. A., & Abdulghani, H. M. (2015). Utilization of Blackboard Among Undergraduate Medical Students: Where We Are From the Reality? *Journal of Taibah University Medical Sciences*, 10(1), 16–20. <https://doi.org/10.1016/j.jtumed.2014.07.002>
- Aleksandrak, M. (2011). Problems and Challenges in Teaching and Learning Speaking at Advanced Level. *Glottodidactica*, 37(1), 37–48. <https://doi.org/10.14746/gl.2011.37.3>
- Alghazo, I. M. (2006). Student Attitudes Toward Web-Enhanced Instruction in an Educational Technology Course. *College Student Journal*, 40(3), 620.
- Ali, J. K. M. (2017). Blackboard as a Motivator for Saudi EFL Students: A Psycholinguistic Study. *International Journal of English Linguistics*, 7(5), 144–151. <https://doi.org/10.5539/ijel.v7n5p144>
- Al-Jabry, H., Salahuddin, M. M., & Al-Shazly, A. L. (2014). Developing and Piloting a Literature Course Learnable via Blackboard for EFL Literature Instruction. *Studies in Literature and Language*, 8(1), 85–95.
- AlKarani, A. S., & Thobaity, A. A. (2020). Medical Staff Members' Experiences with Blackboard at Taif University, Saudi Arabia. *Journal of Multidisciplinary Healthcare*, 13, 1629. <https://doi.org/10.2147/JMDH.S287389>
- Almelhi, A. M. (2021). The role of the Blackboard LMS in EFL course delivery during the Covid-19 pandemic: Investigating attitudes and perceptions of faculty and students. *International Journal of English Linguistics*, 11(2), 46-67. <http://dx.doi.org/10.5539/ijel.v11n2p46>
- Almoether, R. (2020). Effectiveness of Blackboard and Edmodo in Self-Regulated Learning and Educational Satisfaction. *Turkish Online Journal of Distance Education*, 21(2), 126–140. <https://doi.org/10.17718/tojde.728140>
- Alqarni, F. (2015). Collaborative Strategic Reading to Enhance Learners' Reading Comprehension in English as a Foreign Language. *Academic Journal of Interdisciplinary Studies*, 4(1), 161. <https://doi.org/10.5901/mjss.2015.v4n1p161>
- Alqarni, F. (2016). English as a Foreign Language Learning Strategies: Personal Reflection. *International Journal of Recent Advances in Multidisciplinary Research*, 3(4), 1411–1413.
- Alqarni, F. (2017). The Effectiveness of the Intel English Language Learning Program on the Reading and Writing Skills of Saudi Male Adolescent Students [Doctoral dissertation, Memorial University of Newfoundland]. Memorial University Research Repository.
- Al-Sobhi, B. M. S., & Preece, A. S. (2018). Teaching English Speaking Skills to the Arab Students in the Saudi School in Kuala Lumpur: Problems and Solutions. *International*

- Journal of Education and Literacy Studies*, 6(1), 1–11.
<https://doi.org/10.7575/aiac.ijels.v.6n.1p.1>
- Azlan, N. A. B., Zakaria, S. B., & Yunus, M. M. (2019). Integrative Task-Based Learning: Developing Speaking Skill and Increase Motivation via Instagram. *International Journal of Academic Research in Business and Social Sciences*, 9(1), 620–636.
<https://doi.org/10.6007/ijarbss/v9-i1/5463>
- Bahadorfar, M., & Omidvar, R. (2014). Technology in Teaching Speaking Skill. *Acme International Journal of Multidisciplinary Research*, 2(4), 9–13.
- Bahrani, T., & Soltani, R. (2012). How to Teach Speaking Skill. *Journal of Education and Practice*, 3(2), 25–29.
- Basabrin, A. (2019). Exploring EFL Instructors and Students Perceptions of Written Corrective Feedback on Blackboard Platform: A Case Study. *Arab World English Journal*, 179–192.
<https://doi.org/10.24093/awej/elt1.13>
- Chudowsky, N., & Chudowsky, V. (2010). *Are There Differences in Achievement Between Boys and Girls?* Center on Education Policy. <https://files.eric.ed.gov/fulltext/ED509023.pdf>
- Dang, Y. M., Zhang, Y. G., Ravindran, S., & Osmonbekov, T. (2016). Examining Student Satisfaction and Gender Differences in Technology-Supported, Blended Learning. *Journal of Information Systems Education*, 27(2), 119.
- Fageeh, A., & Mekheimer, M. A. A. (2013). Effects of Blackboard on EFL Academic Writing and Attitudes. *JALT CALL Journal*, 9(2), 169–196.
<https://doi.org/10.29140/jaltcall.v9n2.154>
- Francis, G., & Thunell, E. (2021). Reversing Bonferroni. *Psychonomic Bulletin & Review*, 28(4), 788–794. <https://doi.org/10.3758/s13423-020-01855-z>
- Hamad, M. M. (2017). Pros & Cons of Using Blackboard Collaborate for Blended Learning on Students' Learning Outcomes. *Higher Education Studies*, 7(2), 7–16.
<https://doi.org/10.5539/hes.v7n2p7>
- Hamouda, A. (2013). An Exploration of Causes of Saudi Students' Reluctance to Participate in the English Language Classroom. *International Journal of English Language Education*, 1(1), 17–34. <https://doi.org/10.5296/ijele.v1i1.2652>
- Hayat, M. J., & Higgins, M. (2014). Understanding Poisson Regression. *The Journal of Nursing Education*, 53(4), 207–215. <https://doi.org/10.3928/01484834-20140325-04>
- Hussein, E. T. (2016). The Effectiveness of Using Blackboard in Improving the English Listening and Speaking Skills of the Female Students at the University of Hail. *Advances in Social Sciences Research Journal*, 3(12). <https://doi.org/10.14738/assrj.312.2379>
- Ibrahim, L. K., Mohamed, A. G., Aldhafeeri, F. M., & Alqdah, M. (2019). Faculty Members' Perceptions Towards Utilizing Blackboard in Teaching System at Hafr Al-Batin University, Saudi Arabia. *Journal of Nursing Education and Practice*, 9(5).
<https://doi.org/10.5430/jnep.v9n5p64>
- Jalaluddin, M. (2016). Using YouTube to Enhance Speaking Skills in ESL Classroom. *English for Specific Purposes World*, 17(50), 1–4.
- Khafaga, A. F. (2021). The Perception of Blackboard Collaborate-Based Instruction by EFL Majors/Teachers Amid COVID-19: A Case Study of Saudi Universities. *Journal of Language and Linguistic Studies*, 17(2), 1160–1173. <https://doi.org/10.17263/jlls.904145>

- Kinash, S., Brand, J., & Mathew, T. (2012). Challenging Mobile Learning Discourse Through Research: Student Perceptions of Blackboard Mobile Learn and iPads. *Australasian Journal of Educational Technology*, 28(4). <https://doi.org/10.14742/ajet.832>
- Leong, L. M., & Ahmadi, S. M. (2017). An Analysis of Factors Influencing Learners' English Speaking Skill. *International Journal of Research in English Education*, 2(1), 34–41. <https://doi.org/10.18869/acadpub.ijree.2.1.34>
- Madbouly, E. S. (2004). *Communicative Skill Teaching and Testing for Arabs*. Cairo: Al-Anglo Bookshop.
- Mantra, I. B. N., & Maba, W. (2018). Enhancing the EFL Learners' Speaking Skill Through Folktales Based Instruction. *SHS Web of Conferences*, 42, 00017. <https://doi.org/10.1051/shsconf/20184200017>
- Mohsen, M. A., & Shafeeq, C. P. (2014). EFL Teachers' Perceptions on Blackboard Applications. *English Language Teaching*, 7(11), 108–118. <https://doi.org/10.5539/elt.v7n11p108>
- Namaziandost, E., & Nasri, M. (2019). The Impact of Social Media on EFL Learners' Speaking Skill: A Survey Study Involving EFL Teachers and Students. *Journal of Applied Linguistics and Language Research*, 6(3), 199–215.
- Nazara, S. (2011). Students' Perception on EFL Speaking Skill Development. *Journal of English Teaching*, 1, 28–43. <https://doi.org/10.33541/jet.v1i1.50>
- Pusuluri, S., Mahasneh, A., & Alsayer, B. A. M. (2017). The Application of Blackboard in the English Courses at Al Jouf University: Perceptions of Students. *Theory and Practice in Language Studies*, 7(2), 106–111. <https://doi.org/10.17507/tpls.0702.03>
- Saqlain, N., Al-Qarni, F., & Ghadi, N. (2013). Are English Language Teachers in Saudi Arabia Ready to Integrate Technology. *Procedia-Social and Behavioral Sciences*, 103, 146–153. <https://doi.org/10.1016/j.sbspro.2013.10.319>
- Seraji, N. E., Ziabari, R. S., & Rokni, S. J. A. (2017). Teacher's Attitudes Towards Educational Technology in English Language Institutes. *International Journal of English Linguistics*, 7(2), 176–185. <https://doi.org/10.5539/ijel.v7n2p176>
- Tawalbeh, T. I. (2018). EFL Instructors' Perceptions of Blackboard Learning Management System (LMS) at University Level. *English Language Teaching*, 11(1), 1–9. <https://doi.org/10.5539/elt.v11n1p1>
- Tuan, N. H., & Mai, T. N. (2015). Factors Affecting Students' Speaking Performance at LE Thanh Hien High School. *Asian Journal of Educational Research*, 3(2), 8–23.
- Wang, Y., Zhang, H., Wang, Y., & Liu, Y. (2018). An Investigation on the Development of Informatization Ability of Teachers by Applying the Technology Acceptance Model. *2018 International Joint Conference on Information, Media and Engineering (ICIME)*, 172–176. <https://doi.org/10.1109/icime.2018.00043>
- Zyoud, M. (2016). Theoretical Perspective on How to Develop Speaking Skill Among University Students. *Pune Research Scholar an International Multidisciplinary Journal*, 2(1), 1–10.

Effects of Auto-Correction on Students' Writing Skill at Three Different Universities in Sulaimaneyah City

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Abstract

While technology has undoubtedly improved and has become an essential component of modern life, technological advances' consequences have both beneficial and detrimental impacts on students' writing skills in the classroom. Technology has accelerated and simplified work for students, but it has also instilled the belief that there is no need to put significant effort into the texts they write. This study examines the effects of technology and auto-correction on students' writing skills at three different universities in Sulaimaneyah city, Iraq. Case studies and research into the impact of electronic and communication devices on English writing skills among university students has been analyzed to determine the effect of auto-correction on grammar, vocabulary, spelling, and punctuation. Furthermore, the study also aims to show that auto-correction affects students' writing and to compare auto-correction and handwriting to prove that students make mistakes while writing due to technology. In addition, the study examines writing tasks undertaken by students in the English language to assess students' lack of writing skills, particularly in spelling. Finally, the study identifies why students have poor writing skills and corroborate previous research into an auto-corrections negative impact on students' writing abilities.

Keywords: Auto-correction, handwriting, technology, grammar, vocabulary, spelling, punctuation, University of Human Development, University of Sulaimani, Komar University of Science and Technology

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Introduction

Writing is frequently referred to as "linguistic literacy", although verbal literacy is essential for success in life, from education to adult employment. Because writing is critical in college and real life, students should be able to write without technical assistance. Individuals who fail to develop these skills may struggle against more qualified candidates when applying for jobs. Writing is the cornerstone of education and is one of the most basic requirements in all academic fields (Heffernan, Linclon, & Atwill, 2001). In addition, it should be noted that writing is crucial in both the private and professional lives of English as a Foreign Language (EFL) students. Writing technique is the ability to write clearly and concisely, to produce reasoned arguments, and organize facts and ideas. Rapid technological advances have led students, particularly those at colleges and universities, to rely heavily on auto-correction to complete their assignments and reports. Unfortunately, many educators believe that modern technological improvements have resulted in a severe deterioration of the writing skills of young people, and the issue of technology and student mentalities has become the focus of intense discussion. Due to the impact of technology, students do not always recognize the importance of truly understanding English language and grammatically correct written expressions. Students want to "click to search" but do not understand the complexity of writing (Purcell, Buchanan, & Friedrich, 2013). The option of using spell check in Microsoft Word and PowerPoint allows students to take shortcuts, implying that learning spelling, grammar, and sentence structure is unnecessary because technology can do the task for them. This study shows the effect of auto-correction on the writing skills of university students. Auto-correction is one of the most challenging difficulties facing writers today. In some educational sectors, the increased use of auto-correction on smartphones and other electronic devices has created more difficulties than it has solved. Does a system that constantly corrects all mistakes degrade students' writing skills, regardless of whether they have been taught to write essays and reports in university? There is little doubt that many students have difficulties remembering how to spell correctly, whether taking notes in class, writing essays or when asked on the spot. This study indicates the connection between auto-correction and handwriting, showing the data results and understanding how auto-correction affects students' writing skills, an issue that has been addressed by several researchers and academics namely: (Bromley, 2010; Purcell, Buchanan, & Friedrich, 2013; Alhusban, 2016). Nevertheless, this study is principally focused on the impact of auto-correction on students' writing skills and also examines the problems students face in the writing process. In brief, this study aims to help students determine whether auto-correction has affected their writing skills and whether they have problems learning writing skills at the universities in Sulaymaniah.

The study investigates the effects of auto-correction on students' writing skills in three prominent universities in Sulaymaniah. The results should offer current or prospective students validated advice on whether or not to apply and use auto-correction during their university studies and to assess their writing skills. The study tries to answer the following questions:

1. What effect does modern technology have on students' writing skills at some Sulaymaniah universities?
2. How does auto-correction influence English writing skills?
3. To what extent does auto-correction affect students' writing skills in some Sulaymaniah universities?

Literature Review

Writing in General

Writing is the process of communicating thoughts and ideas in a readable form by employing symbols such as alphabet letters, punctuation, and spaces (Banwell, 2018). One can write with a pen and pencil (handwriting) or a keyboard (typing). A keyboard is usually found on a typewriter, computer, or mobile phone. Those who cannot see or use their hands can have their thoughts transcribed using voice recognition software (Banwell, 2018). This definition emphasizes that writing is, in principle, a representation of language rather than a direct representation of thought and that spoken language has multiple levels of structure, including sentences, words, syllables, and phonemes (the minor units of speech used to distinguish one word or morpheme from another), all of which a writing system can "map onto" or represent (Olson, 2010). While spoken language has existed since the start of time and can usually be learnt without formal teaching, writing is a technique that has only lived for a relatively short time and must be taught to each generation of children. The Greek development of the alphabet was considered the climax of a long historical progression, with historical narratives of the growth of writing systems focusing on a single attribute, increasing efficiency (David & Olson, 2010). The primary objective of writing is to communicate with others and to elicit a reader's response. It can also be used in writing to help reflect on and grow from personal experiences. While at university, one of the most important ways of measuring a student's progress and learning is through their written work (Lane, 2013).

Handwriting

The act of writing by hand with a pen, pencil, digital stylus, or other devices is known as handwriting. The art, talent, or style of handwriting is known as penmanship. Lockwood (1996) states that "Legible, fast, and personal handwriting will develop most efficiently in intentional writing contexts, much like the other secretarial skills". Mainly, the collective handwriting skill appears to have been reduced by technology. With its typing and texting, the digital era has rendered us unable to scribble even the most important notes in anything resembling penmanship. A third of us cannot read our writing, let alone that of others, according to a poll conducted by the not precisely neutral print and post specialists Docmail (Hamburgh, 2013). According to Bearne (1998), the link between handwriting and spelling is related to kinesthetic memory, or how one absorbs ideas through repetitive movements. Establishing kinesthetic memory for movements is aided by forming letterforms in the air or sand, with paint, with a finger on the table, on paper with a pencil or pen, or even writing out misspellings numerous times. Peters (1985) similarly analyzed perceptuo-motor ability, arguing that precise handwriting goes hand in hand with rapid handwriting, which influences spelling.

Auto-correction

The AutoCorrect feature in Microsoft Word and other products contains a vast list of frequent misspellings and typing errors that it automatically corrects; for example, "hte" will be replaced with "the". Although MLA style writers can benefit from Microsoft Word's AutoCorrect, spell-check, and style-settings features; unfortunately, they can also cause mistakes or get in the way of free expression.

Auto-correct is a software program that detects misspelt words, uses algorithms to determine which words are most likely to have been intended, and then fixes the text accordingly. It is a widely used feature in word processors and various messaging platforms, including Apple, Google, and Microsoft products (Wigmore, 2012). However, their algorithms are far from perfect, especially in auto-correct systems for smartphones, and are frequently more active in facilitating typing on the devices' small keyboards. In addition, auto-correction affects students' writing and spelling; the program can figure out how many mistakes they will make in handwriting and send students a weekly list of 20 unknown words to help them improve their spelling and vocabulary. Nonetheless, when students write their homework in Microsoft Word, they focus less on spelling because auto-correction will correct all of their spelling mistakes for them.

How Computer Applications Affect Students' Writing Skills

Today's young people are unlike any prior generation since they were born into a digital world and have grown up surrounded by digital technology (Prensky, 2001). Students have grown up in this new digital environment utilizing and engaging with a broad spectrum of technology, from television to computers, smartphones, and other digital mobile devices. Since writing is an integral part of success in college and life, students should be capable of writing without technical help and assistance. A failure to master this skill could mean that these individuals will struggle against other more skilled applicants when applying for a job. Therefore, students must learn writing skills to graduate from college and university to succeed in today's highly competitive global economy (Alhusban, 2016). Due to technology, students do not often benefit from learning English language and grammatically correct written speech. Students usually take shortcuts using spell check features in Microsoft Word and PowerPoint, implying that learning spelling, grammar, and sentence structure is unnecessary because technology can do these tasks for them. However, if students do not understand certain key aspects of the writing process, these technical methods will harm them and result in misunderstandings (Purcell et al., 2013). The more students rely on technology to write assignments, the worse their writing ability will become. Students' capacity to articulate their full thoughts is deteriorating, and they cannot think for themselves. Technology generally hides students' misunderstandings and interferes with their learning (Alhusban, 2016). Students cannot think critically and interpret data, synthesize facts, write evidence-based statements, or identify acceptable grammatical and structural errors as a result (Rothman, 2012).

In addition to computer applications, text messaging is another significant technical development preventing students from completing structured written assignments. Texting has been shown to "heighten the propensity among students to adopt due to the significant rise in texting. In their classwork, non-standard uses and contracted forms of English words" (Dansieh, 2011, p. 222). Students' concentration spans become shorter due to texting, causing them to write in minor detail and replace more appropriate words with more specific, less sophisticated words. A study by Dansieh (2011) expanded on this subject by giving examples of terms that have been simplified by using symbols that sound like the syllables of actual words. This activity only creates misspelt words and new words that do not exist in English. When texting, these words and phrases include "4U" means "for you", "B4" means "before", "LOL" means "laugh out loud", "shud" means "should", and "gr8" means "great" (Daisieh, 2011). Since most word processors have spell-checking functionality, students can fix errors immediately and erase, add, or rearrange material.

Word processors save time for students, allowing them to concentrate on more critical aspects such as planning, arranging, and reflecting on their ideas. However, according to Baker and Kinzer (1998), students who write with paper and pencil have a more linear writing method: they brainstorm, outline concepts, write drafts, rewrite, proofread, and then come up with the final edition, while students who register with word processors have no linear process since they combine both of these elements before they come up with the last piece of writing. The relentless advancement in technology has resulted in many improvements in teaching and learning languages. Nowadays, students have access to several applications that aids them in developing their language skills, one of which is word processors as resources that assist students in enhancing their writing skills across a variety of opportunities. New technical five techniques are unmistakably redefining modern writing and writing skills. Today's students are "altering the essence of the English language" by relying on technology to "correct" all of their writing errors (Bromley, 2010).

Related Studies

Abdelrahman (2013) examined how using a word processor might help EFL students at Al-Imam Muhammad Bin Saud Islamic University to improve their writing skills. The study questioned forty male students divided into two sections, each randomly chosen from five sections and allocated to experimental and control groups. Several computer-based approaches, methodologies, and activities such as error checking were applied to fulfil the study's goal. The exact test was given as a writing performance post-test after the experiment. The results revealed significant differences in favour of the experimental group.

Hoomanfar, Meshkat (2015) published an article about Writing on a Computer and Using Paper and Pencil the findings revealed that participants spent less time pre-writing preparation in the mechanical condition and took more breaks during the writing process for online planning, according to the quantitative and qualitative analysis of the collected data. In contrast, participants writing with pen and paper typically postponed their evaluation until the end of the writing process. In combination with other studies, these findings can help second language teachers, curriculum developers, and test developers better understand second language writing cognitive processes.

Alhusban (2016) published the results of their research in The Impact of Modern Technological Tools on Students Writing Skills in English as a Second Language. The impacts of electronic and communicative gadgets on English writing among college students are assessed using a case study and current research. According to the findings, students are having increasing difficulties distinguishing between casual and formal writing due to their continual exposure to abbreviated forms of words and programs that practically do the work for them. Two categories of students' writing capabilities were collected and compared to examine writing abilities in creative writing. Sadiku and Krasniqi (2018) published a paper about computers' impact on students' writing skills. Vocabulary is likely to be forgotten if not acquired and used appropriately to give learners language inputs in a natural target language setting. In this regard, today's learners benefit from increased access to various multimedia and technological resources, which improve spontaneous vocabulary acquisition. Movies with subtitles, in particular, can be a valuable tool for bringing pupils closer to realistic real-life communication vocabulary. As a result, past research

has discovered several advantages to watching subtitled movies, including developing vocabulary skills.

Based on the previous studies the researchers realized that there is a gap in this area and the gap is how auto-correction affects Kurdish students writing in three universities in Sulaymaniyah city, figuring out how many mistakes they will make in handwriting. Students in traditional spelling receive a weekly list of 20 unknown words. It is a purpose for improving their writing skills. Still, when students write their homework and write on Words, they do not focus on spelling because auto-correction will correct all spelling mistakes.

Methodology

Research Methods

This study uses a mixed-method approach that integrates both qualitative and quantitative techniques. Qualitative research entails gathering and analyzing non-numerical data such as text, video, or audio to better understand ideas, thoughts, or experiences and can be used to gain in-depth insights into an issue or generate new research ideas (Bhandari, 2020). The opposite of qualitative research is quantitative research, which includes collecting and interpreting numerical data for statistical analysis. Quantitative study is widely used in the humanities and social sciences, including anthropology, sociology, education, health sciences and history (Pritha Bhandari, 2020).

Three universities in Sulaimaneyah city are chosen for the data collection. Thirty students are chosen as the sample of the current study and are asked to write two-paragraph essays in the classroom in their handwriting and then type the exact text using auto-correction.

Setting

The research aims to determine the impact of auto-correction on students' writing skills at three different universities in Sulaymaniyah. The main goal is to determine whether students make more grammar, vocabulary, spelling, and punctuation related mistakes when writing by hand or when using auto-correction (while typing). In this research, 30 students aged between 18 and 23 from the English departments of three Sulaimaneyah universities, namely: Komar University, UoS, and the University Of Human Development, participated through writing two paragraphs each.

The University of Human Development (UHD) founded in 2008, it is a private, non-profit, national university that focuses on social and health sciences education and human development via teaching, researching, and scholarship. Also, University of Sulaimaneyah (UoS) was founded in 1968, and its main campus is located in Sulaimaneyah, Iraqi Kurdistan. In addition, Komar University of Science and Technology (KUST) is a private university operated by an Administration Council and overseen by Trustees. The university's main campus is in Sulaimaneyah, Kurdistan, Iraq. In 2010, KUST began offering teaching lessons, including an English language summer session (levels 1 and 3).

Ten students from each of the above-mentioned universities are chosen to participate in the current study. The students are chosen randomly and have the right not to participate in the study if they are not willing to. Additionally, they are asked to provide their consent and notice of their complete understanding of the context of the study.

Instruments

To collect data, qualitative and quantitative data collection tools are used. The participants are asked to write two paragraphs about any topic they wish in handwritten form, which they would then type into the computer using auto-correction. The typed text would then be sent to the researcher via email.

The Procedure of the Study

The data collection process is conducted in October and November 2021. This study uses a mixed-method approach as it works with words and meaning and data collection and numbers. The data collection starts with UHD in early October, and the first part of the data (the hand written copy of texts) is collected over the period of two days in a row. UHD students from Semantics class are asked to participate voluntarily. Then, the same group of students are asked to write about the same topic later on but type it in a word file on a computer (using auto-correction) instead and email it to the researchers. After two weeks, the researchers receive all the online versions by email. Following that, in one of the writing classes at UoS, the instructor asks the students to write two paragraphs, one in handwriting and the other in auto-correction, over three weeks. Finally, the researchers collect the final part of the data from KUST. The data is collected from writing I class, where students are required to compose two paragraphs, and the entire process needs about two weeks. After two months, the data analysis procedure begins. First, all of the handwriting sheets are scanned to locate all of the mistakes, then the soft copy, in which auto-correction is used, is read, and all of the mistakes are highlighted, and finally, both paragraphs are compared. The same procedure is applied for all the data collected from all of the participating universities. It is clear that both mixed methods quantitative and qualitative methods are used to analyze data in this study; first, the researchers gather the number of mistakes made by students in grammar, vocabulary, spelling, and punctuation; then, analyze the level of students' writing skills.

Results and Data Analysis

University of Human Development

Table 1. *Results of UHD: Student Mistakes*

Category	Number of mistakes in the Handwritten paragraph	Number of mistakes in the Auto-corrected/typed-in paragraph
Grammar	105	209
vocabulary	23	32
spelling	182	47
punctuation	129	241
Total number of mistakes	439	529

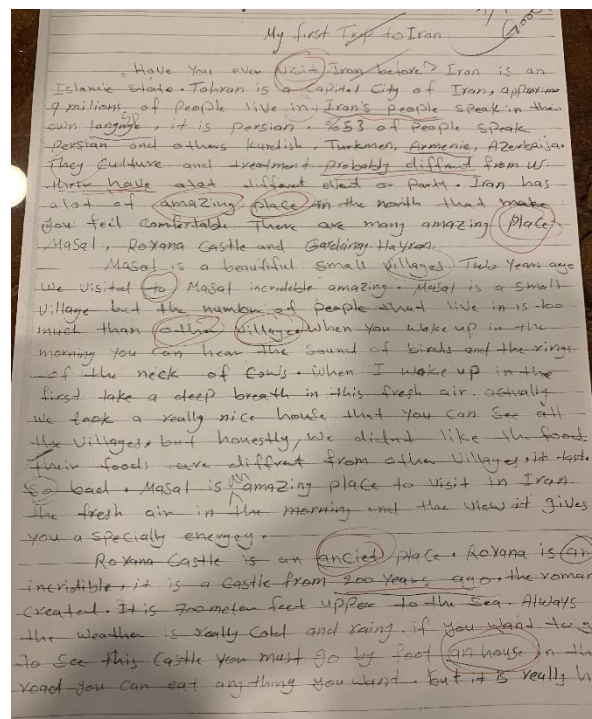
Ten students from the University of Human Development have participated in the research. They made 439 errors in the handwritten texts and 529 errors in the auto-corrected texts. Furthermore, they made 105 grammar errors in the handwritten texts but 209 grammatical mistakes in the auto-corrected texts. While having a strong vocabulary is an essential part of the writing process, UHD students made 23 vocabulary errors in handwritten but 32 in auto-corrected texts. In contrast to the previous two categories, students made more spelling mistakes in the handwritten texts than in the auto-corrected texts, with 182 spelling errors compared to 47 in the typed text. Punctuation is complex in writing because students often struggle to identify correct

positions; 129 punctuation errors were placed in the handwritten texts and 241 in the auto-corrected texts. In summary, students made more grammar, vocabulary and punctuation mistakes in the auto-corrected texts and more spelling mistakes in the handwritten texts.

Example from (UHD)

Auto-correction

handwriting



These two images are an example of UHD imaging. The first image is auto-corrected, whereas the second is handwritten. In the auto-corrected one, the student has numerous problems in grammar structure but few grammatical mistakes in handwriting, such as misusing articles; the student's grammar level is relatively poor. Furthermore, the level of vocabulary is similar in both situations. The main issue is spelling; in this case, it is apparent that auto-correction impacts spelling ability; the students made several spelling mistakes in handwriting, such as (anciet, restaurnt, etc.), but there are also spelling errors in the auto-corrected texts. Punctuation is the last one; This student made more punctuation mistakes in the auto-corrected text than in handwriting; for example, the position of the coma is incorrect in some instances, therefore based on this and other examples, auto-correction has a more significant impact on spelling than different writing abilities.

University of Sulaimanyah

Table 2. Results of UoS: student mistakes

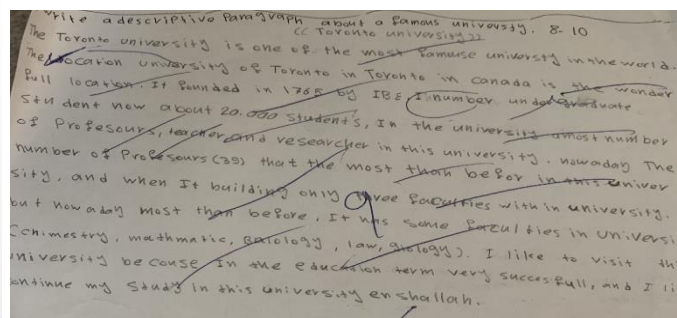
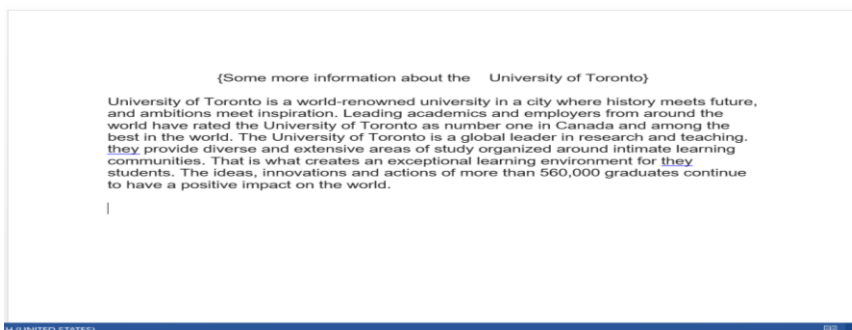
Category	Number of mistakes in the Handwritten paragraph	Number of mistakes in the Auto-corrected/typed-in paragraph
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Grammar	48	29
Vocabulary	7	6
Spelling	124	15
Punctuation	66	26
Total number of mistakes	245	76

Ten students from UoS have participated in the research, and a total of 245 mistakes were identified in their handwritten texts and 76 in their auto-corrected texts. Students made 48 grammar mistakes on the handwritten texts and 29 in the auto-corrected texts. Surprisingly, only seven mistakes in choosing inappropriate vocabulary were found in the handwritten texts and six in the auto-corrected texts. The handwritten texts also featured 124 spelling errors compared to the 15 errors found in the auto-corrected texts. Finally, students made 66 punctuation errors in the handwritten texts but only 26 in the auto-corrected versions. In summary, students made more grammar, vocabulary, spelling and punctuation mistakes in the handwritten texts than in the auto-corrected texts, with a huge difference in the case of spelling mistakes.

Example: from (UoS)
Auto-correction

Handwriting



The above given example of data is from UoS, one piece of writing in auto-correction mode and the other in handwriting. This student experienced more grammatical mistakes in writing than in auto-corrected work, and most students at this university struggle with grammar structure when writing paragraphs on paper (data shows). It is difficult to assign a vocabulary level through writing paragraphs, yet auto-correction does not affect vocabulary here at this university through those examples. Students at UoS, for example, have a lot of problems with spelling (important, noway, locaton, etc.); therefore, one of the reasons for poor spelling at this university may be the frequent use of auto-correction. In this case, the student's handwriting contains more punctuation difficulties than the auto-corrected version because auto-correction corrects punctuation errors for the students. Overall, auto-correction impacts the level of spelling and punctuation at this university.

Komar University of Science and Technology

Table 3. Results of KUST: student mistakes

Category	Number of mistakes in the Handwritten paragraph	Number of mistakes in the Auto-corrected/typed-in paragraph
Grammar	48	73
Vocabulary	8	19
Spelling	124	3
Punctuation	88	64
Total number of mistakes	268	159

Ten students from Komar University have participated in the study and they made 268 writing errors in their handwritten texts and 159 in their auto-corrected readers. It is clear that most students are not engaging in incorrect grammar use; 48 grammar mistakes were made in the handwritten texts and 73 in the auto-corrected versions. Students also struggled to find appropriate vocabulary; 8 errors were made on the handwritten texts compared to 19 in the auto-corrected versions. Students also made many spelling errors while handwriting; 124 spelling mistakes on paper and three spelling mistakes using auto-correction. There were 88 punctuation errors in the handwritten texts and 64 in the auto-corrected texts. Grammar and vocabulary mistakes were more common in the auto-corrected texts, and spelling and punctuation were more frequent in the handwritten version. Again, there was a sizable difference in the number of spelling errors between the two formats.

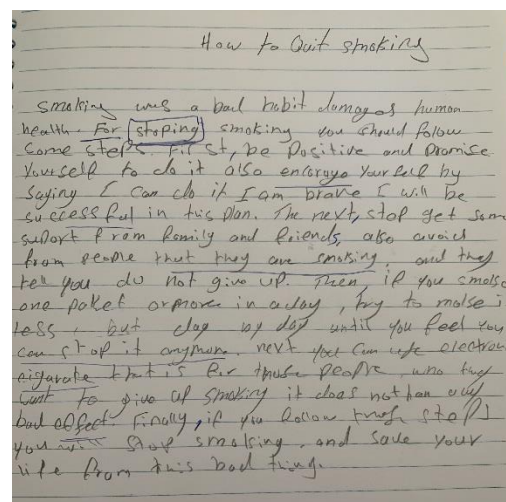
Example: from (KUST)

Auto-correction

Handwritten

How to Quit Smoking

Smoking is a bad habit damages human's health. For stopping smoking you should follow some steps. First, be positive and promise yourself to do it, also encourage yourself by saying I can do it I am brave I will be successful in this plan. The next step, get some support from your family and friend, also avoid from people that they are smoking, and they tell you do not give up. Then, if you smoke one packet or more in a day, try to make it less, but day by day until you feel that you can stop it anymore. Next, you can use Electronic Cigarette that is for those people, who they want give up smoking, it does not has any bad effect. Finally, if you follow these steps you will stop smoking, and save your life from this bad thing.



In this sample from KUST, the student made more grammatical errors in handwriting than the auto-corrected one, implying that auto-correction assists students correct grammatical errors. There is no degree to measure vocabularies level, yet in auto-correction, students use weak words, but they use stronger vocabularies in handwriting. The main issue here is that students made many spelling mistakes, such as (stopping, suport, cigarate, encarge,..etc.). Yet, suppose you return to quantitative analysis ultimately. In that case, there are only three mistakes in the auto-corrected one, which means that students at this university use auto-correction a lot, and it negatively impacts their spelling ability. Students committed punctuation errors in both situations, although

handwriting has more punctuation errors. For example, the student did not put coma after (first, and then), which is required in this example. In this university, auto-correction affects spelling and punctuation; otherwise, auto-correction helps students develop their grammar abilities.

Discussion of the Findings

In general, the research findings provide a relatively clear picture of how auto-correction affects the writing skills of students at three different universities in Sulaimaneyah City, with auto-correction appearing to have a negative impact on the writing skills of students from two of the universities. Nonetheless, their handwriting and auto-correction errors were comparable in the case of students from one university, suggesting that auto-correction did not affect their writing skills.

Discussion of the Grammar Findings

According to the data, students face more grammar problems while writing using auto-correction; for example, students from UHD produced 105 grammar errors in the handwritten texts but that number doubled to 209 when using auto-correction. The fact that grammar mistakes are made in both formats, suggests that the students have grammar issues in general. Students profited from using writing software because it improved their organizational skills and made their writings more ordered and more straightforward to read than those written by hand. As a result of word processors' ability to fix spelling and provide suggestions for grammar faults, these students generated compositions with fewer grammar and spelling errors, which are usually rectified automatically by the program (Alisa Sadiku and Ardian Krasniqi p8 2018).

Discussion of Vocabulary Findings

The data shows that students made vocabulary mistakes in both formats in the vocabulary section. However, errors were more common in the auto-corrected texts because auto-correction programs always suggest more academic words, which many students find challenging to use. For example, students from Komar University struggled to identify appropriate vocabulary; 8 errors are made in the handwritten texts but 19 in the auto-corrected versions. Students show a preference for using computers in writing; they appear to be more motivated and excited. When students write on computers, the process of composition becomes a social interaction as they share their work with their friends, enhancing their collaborative and cooperative behaviour and making this a fun and exciting task. They also learn to employ new vocabulary (Alisa Sadiku and Ardian Krasniqi p9 2018).

Discussion of the Spelling Findings

According to the study, students' memories suffer due to the use of auto-correction, with most of the students making spelling mistakes in the handwritten texts. However, a careful analysis of the students' spelling mistakes leads us to conclude that the students might know the correct spelling of the words they have misspelt. Spelling is an essential part of writing skills. This section clearly shows that auto-correction has a significant impact on writing abilities; for example, UHD students made more spelling mistakes in their written texts than in the auto-corrected versions, 182 compared to 47, respectively. Students of UoS made 124 spelling errors in the handwritten texts and 15 in the auto-corrected versions, while KUST students made 124 and 3. The results clearly show that auto-correction affects the spelling section more than the other sections.

Netspeak's informal language register has also aided in developing poor written English. Because of the screen size limitations, many Web pages' text is significantly shorter than printed language, with short phrases and paragraphs for ease of reading (Amani M. Alhusban p4 2016).

Discussion of the Punctuation Findings

Punctuation is a consistent problem in students' writing tasks; the data for UHD students showed 129 punctuation errors in the handwritten texts and 241 in the auto-corrected versions. In contrast, students of UoS made 66 punctuation errors in their handwritten texts but only 26 in the auto-corrected versions. Data from KUST shows 88 punctuation errors on paper and 64 in the auto-corrected versions. So the research shows that in one university, students make more punctuation mistakes using auto-correction. Nevertheless, more punctuation mistakes are made in the handwritten texts in the other two institutions. Email and short messaging services (SMS) are employed for quick communication, and the occasional error may sometimes appear. Students who write without capitalization or punctuation for the sake of brevity and convenience without considering scholastic ramifications risk being labelled as slackers (Amani M. Alhusban p 4 2016).
Study Limitations and Suggestions for Future Research

This study focuses on a limited group of participants from three universities in Sulaymaniah City, with only thirty people being able to participate in this study. However, while this study does make a valuable contribution to what is known about the impact of auto-correction on students' writing skills, one possible restriction may be that the sample of participants is limited to undergraduate students. At the same time, the majority of this type of auto-correction appears to have a negative impact on students' writing abilities during their university years. Therefore, future research could examine students' skills from schools and colleges and students at different points of their academic careers (for example, high-school students) to see if auto-correction has had impacts before their entry into higher education.

Finally, future studies should include a random sample of participants from different higher education institutions in Kurdistan to provide more comprehensive results.

Conclusion

Modern technology tools are unmistakably changing the contemporary writing process and writing skills. Nowadays, students are "altering the nature of the English language" by depending on technology to 'correct' all of their writing mistakes (Bromley, 2010, p. 103). Fortunately, auto-correction mainly affects students spelling. However, the data in this study suggests that auto-correction has a negative influence on writing skills in some cases. Nonetheless, it has no effect or beneficial impact on students' writing in other instances, such as sometimes students being taught grammatical rules from auto-correction.

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References

- Abdelrahman, O. N. M. B. (2013). The impact of using the word processor to develop EFL learners' writing skill at Al-Imam Mohammad Ibin Saud Islamic University. *IUG Journal of Humanities Research*, 21(2), 1-26.
- AbuSeileek, A. (2006). The use of word processor for teaching writing to EFL learners in King Saud University. *Journal of King Saud University*, 19(2), 1–15
- Akerman, P. T., Dykman, R. A., & Gardner, M. Y. (1990). Counting rate, naming rate, phonological sensitivity, and memory span: Major factors in dyslexia. *Journal of Learning Disabilities*, 5, 325–327.
- Alhusban, A. (2016). The impact of modern technological tools on students writing skills in English as a second language. *US-China Education Review*, 6(7), 438-443.
- Allan, D. (2004). *Oxford Placement Test*. Oxford: Oxford University Press.
- Ansarimoghaddam, S. & Tan, B. H. (2013). Co-constructing an Essay: Collaborative Writing in Class and on Wiki. *3L: Language Linguistics Literature Southeast Asian Journal of English Language Studies*. 19(1), 35-50.
- Bachman, L. (1991). *Fundamental Considerations in Language Testing*. Oxford: Oxford University Press.
- Bahr, C. N. & Nelson, (1996). The effects of text-based and graphics-based software tools on planning and organizing of stories. *Journal of Learning Disabilities*.
- Baker E. & Kinzer, C.K. (1998). Effects of technology on process writing: Are they all good? *National Reading Conference Yearbook*.
- Baron, D. (1999). From pencils to pixels: The stages of literacy technologies. In G. Hawisher & C. Selfe (Eds.), *Passion pedagogies and 21-century technologies* (pp. 15-33). Logan, UT: Utah State University Press.
- Beck, N. & Fetherston, T. (2003): The effects of incorporating a word processor into a year three writing program. *Information Technology in Childhood Education Annual*, V.1, P. 139-161.

- Benwell, T (2018). What is Writing. English Club. Retrieved from <https://www.englishclub.com/writing/what.htm>
- Bhandari, P. (2020). What is Qualitative Research? Methods & Examples. Retrieved from <https://www.scribbr.com/methodology/qualitative-research/>
- Bromley, K. (2010). Technology and writing. In M. McKenna, L. D. Labbo, R. D. Kieffer, & D. Reinking (Eds.), *International handbook of literacy and technology*, 2, 349-355.
- Bromley, K. (2010). The future of writing. In M. Foote, F. Falk-Ross, S. Szabo, & M. B. Sampson (Eds.), *College reading association 29th yearbook. Navigating the literacy waters*:
- Chapelle, C. A., & Douglas, D. (2006). *Assessing Language through Computer Technology*. Cambridge: Cambridge University Press.
- Chapelle, C., Grabe, W., & Berns, M. S. (1997). *Communicative language proficiency: Definition and implications for TOEFL 2000*. Princeton, NJ: Educational Testing Service..
- Collier, R. & Werier, C. (1995). When Computer Writers Compose by Hand. *Computers and Composition*. 12, 47-59.
- Crystal, D. (2008). *Txtng: The gr8 db8*. Oxford: Oxford University Press.
- Dansieh, S. A. (2011). SMS texting and its potential impacts on students' written communication skills. *International Journal of English Linguistics*, 1(2), 222-229.
- Ellis, R. (2003). *Task-based Language Learning and Teaching*. Oxford: Oxford University Press.
- Grabe, W. & Kaplan, R. B. (1996). *Theory and Practice of Writing: An Applied Linguistic Perspective*. Longman: London.
- Haralson, J., & Ross, K. (2007). Does text messaging hurt student writing skills. *American Teacher*, 92(3), 4-20
- Hoomanfar, M. H., & Meshkat, M. (2015). Writing on a Computer and Using Paper and Pencil: Is there any Difference in the Internal Cognitive Processes?. *GEMA Online Journal of Language Studies*, 15(2), 17-32
- Hoomanfar, M. H., & Meshkat, M. (2015). Writing on a Computer and Using Paper and Pencil: Is there any Difference in the Internal Cognitive Processes?. *GEMA Online Journal of Language Studies*, 15(2).
- International Journal of Advanced Trends in Computer Science and Engineering, 1(1). Retrieved from <http://www.warse.ijatcse.current>.
- Madden, D., & Laurence, D. (1994). An examination of college writing skills: Have they deteriorated? Education Resources Information Center. Retrieved May 2, 2015.
- Nævdal, F. (2007). Home-PC usage and achievement in English. *Computers & Education*, 49(4), 1112-1121.
- Olson, D. R., & Oatley, K. (2014). The quotation theory of writing. *Written Communication*, 31(1), 4-26.
- Omar, A., & Miah, M. (2012). Impact of technology on teens' written language. *International Journal of Advanced Trends in Computer Science and Engineering*, 1(1).
- Research, praxis & advocacy (pp. 2-10). Commerce, T.X.: Texas A & M University.
- Sadiku, A., & Krasniqi, A. (2018). Computers' impact on students' writing skills. UBT International Conference. 121.

Sorrentino, J. (2008). Is spell check creating a generation of dummies? Education.com. N.p., January 11 2008. Web. October 08 2013.

Swartout, S. K. (2013). The Impact of Computer Applications on the Development of Students' Literacy Skills. Alhusban, A. (2016). The impact of modern technological tools on students writing skills in English as a second language. *US-China Education Review*, 6(7), 438-443.

The Effect of Explicit Training of Metacognitive Reading Strategies on Online Reading Comprehension

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Abstract

Few studies have investigated the detailed procedure of systematically delivering and teaching metacognitive strategies in higher education. This study investigates whether explicit training in metacognitive strategies could improve undergraduates' online reading comprehension over the pandemic. The results of this study contribute to teacher education programs to teach and apply regularly metacognitive reading strategies. In a quasi-experimental design, the experimental group and control group underwent 14 sessions of training. Semi-structured interviews and a Metacognitive Reading Awareness Strategy Assessment were conducted among experimental students. The data were collected using the reading test, Metacognitive Reading Awareness Strategy inventory, and semi-structured interviews in Malaysia. The results of Repeated Measure ANOVA showed the mean scores of students in the metacognitive group were significantly higher than the mean score of the students in the conventional reading group ($F= 1.3, 82.3 = 215.973$, $p < 0.001$). The results of the Metacognitive Reading Awareness Strategy Assessment showed that students had more awareness of global reading strategies ($M= 3.511$), followed by supporting reading strategies ($M=3.468$) and problem-solving strategies ($M= 3.427$). The thematic analysis result supported that students were moderate users of planning and monitoring strategies while evaluative ones were less frequent. The results also revealed that students perceived that lack of vocabulary knowledge, heavy dependence on their teachers, and lack of strategy training were the main causes of their reading difficulties. The findings implied that EFL teachers should introduce metacognitive reading strategies through appropriate and systematic instructions to enable the students to implement them in their academic reading.

Keywords: metacognitive reading strategies, online teaching, reading comprehension

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Introduction

A growing body of literature recognizes the importance of reading in a higher education context (Miller & Merdian, 2020; Yapp, de Graaff, & van den Bergh, 2021). The academic success of university students depends on their reading proficiency, as they require to read textbooks and resources to acquire the content and procedural knowledge of fields of specializations. Reading entails successful interactions between writer, context-specific, and text-based factors, including fluency and automaticity in text processing, lexical resource, background knowledge, motivation for reading, and metacognitive reading strategies (Ghaith, 2019; Kung & Aziz, 2020). Some researchers maintained that a significant number of EFL learners might reach tertiary education without being well-prepared for the reading requirements of their academic programs (Cabinda, 2016; Aghajani, 2019). Despite the need for continued support in reading, maintaining a structured focus on the reading process is commonly ignored by university instructors to provide more direct instruction in writing. Instructors often assume that students have developed sufficient reading skills from previous academic experiences (Andrianatos, 2019; Amir, Hasanuddin, & Atmazaki, 2019).

The last two decades have seen a growing trend toward investigating the importance of reading and teaching different reading strategies to enhance students' reading comprehension (Susanto, 2020; Amir et al., 2019). The issue of reading strategies classification has received considerable critical attention, with different scholars proposing different classifications. Though there is little consensus on how many learning strategies are exactly used by learners and how they should be named or grouped, Chamot and O'Malley (1987) and Oxford (2011) have suggested some useful and specific category types: cognitive, metacognitive, and socio-affective. Specific methods for the classroom delivery of metacognitive reading strategy instruction were used, such as the Cognitive Academic Language Learning Approach (CALLA), first introduced by Chamot and O'Malley (1987). More recently, Anderson and Briggs (2011) have proposed a model for metacognition that is composed of five main components: (1) organizing and planning for learning, (2) choosing and employing strategies, (3) monitoring the use of strategy, (4) organizing variety of strategies and (5) assessing the use of strategy and learning.

A few classifications emphasize 'metacognition' as an essential aspect of strategies, including planning and preparing for reading; and how to monitor, direct and evaluate the use of different reading strategies. Mokhtari and Sheorey (2015) classified metacognitive reading strategies into global, problem-solving, and support reading strategies. *Global reading strategies* are strategies followed to get the main idea or gist of the text. *Problem-solving strategies* help the reader tackle the problem while the text becomes difficult. However, *support reading strategies* are techniques to sustain the reading.

Numerous researchers identified the major role of metacognition in text comprehension and differentiated between good and poor readers (Takallou, 2011; Meniado, 2016; Montaghani & Mahdavi-Zafarghandi, 2016; Bećirovic et al., 2017; Lee & Mak, 2018; Dardjito, 2019; Ajideh & Poulvar, 2018; Hapsari, 2019; Deliany & Cahyono, 2020; Kung & Aziz, 2020; Manh Do & Le Thu Phan, 2021). Some studies suggest a positive correlation between the use of metacognitive reading strategies and reading scores (Alıcı & Serdaroglu, 2016; Memiş & Kandemir, 2019; Memiş & Kandemir, 2019). Studies investigating online metacognitive reading strategies were

similar to those cited in printed materials (Azmuiddin, Nor, & Hamat, 2017; Rianto, 2021). It has been reported that students used problem-solving strategies the most, although global reading and support reading strategies were the least used. However, some studies found no significant relationship between teaching metacognitive reading strategies and student reading improvement (Meniado, 2016; Surlitasari & Premini, 2018).

It is now well established from various studies that explicit teaching of metacognitive strategies would improve reading comprehension scores. However, the results of some studies are questionable as there has been no one specific way of conducting the instruction of metacognitive reading strategies. To the best knowledge of the researcher, few studies explained the detailed procedure of systematically delivering and teaching metacognitive strategies in a higher education context.

Based on the researcher's teaching experience, some students often complain about how difficult it is for them to read an academic article that includes many unknown and complex words—reading needs much more than recognizing written words in a text and decoding information at this level. Some students might decode the written texts; however, they cannot comprehend what they have decoded due to a lack of comprehension skills. These students encounter difficulty comprehending academic text and this weakness adversely influences their academic performance.

To understand the current practice of teaching reading metacognitive reading strategies at the ELS institution, the researcher observed three reading sessions taught by instructors. The researcher has observed most instructors used conventional teaching practices while teaching reading comprehension. She has noticed that instructors used only planning strategies. One source of the learners' difficulty despite their satisfactory language proficiency might be their lack of knowledge of reading metacognitive strategies.

In addition, the existing body of research suggests that explicit teaching of metacognitive strategies would improve reading comprehension scores. However, such studies have failed to clarify how they systematically teach metacognitive strategies in practice. A considerable lack of standardization of instrumentation and lack of specification with teaching metacognition was identified in the current literature. Few studies have investigated the detailed procedure of systematically delivering and teaching metacognitive strategies in higher education (Ajideh et al., 2018; Hapsari, 2019). To fill the gap in the existing literature, the researcher described the systematic implementation of teaching metacognitive strategies over the pandemic to international undergraduate students and examined their effects on their reading comprehension.

Moreover, previous research only administered the Metacognitive Awareness of Reading Strategies Inventory (MARSİ) to measure students' metacognitive reading awareness. Some studies skeptically questioned this assessment method for identifying students' degree of awareness of metacognitive reading strategies. (Hong-Nam & Page, 2014; Alici & Serdaroğlu, 2016; Dardjito, 2019; Ulu, 2019; Deliany & Cahyono, 2020). To better understand students' awareness and perception of metacognitive strategies, the researcher interviewed students in the experimental group to identify their problems while applying these strategies. The general purpose

of the study is to investigate the effect of explicit online teaching of metacognitive strategies on the reading comprehension of undergraduate international students in Malaysia. The second aim is to identify undergraduate international students' most commonly used metacognitive reading strategies. The third aim is to identify undergraduate international students' perception of metacognitive strategies in their reading comprehension. The findings have contributed to higher institutions in general and the Ministry of Education in Malaysia to emphasize teaching reading comprehension strategies and inclusion of reading efficiency so that students taking the proficiency courses will be well-equipped with general academic reading skill. Based on the research objectives mentioned above, the present study attempts to achieve answers to the following research questions and their related hypotheses.

1. What differential effects do metacognitive strategies have on international undergraduate learners' reading comprehension?
2. What are the most commonly used metacognitive reading strategies by participants?
3. What is the students' perception of using metacognitive strategies to improve their reading comprehension?

Ho 1: There is no significant difference between mean scores of reading comprehension among students who attended reading lessons using metacognitive strategy and those who used the conventional approach in pre-test?

Ho 2: There is no significant difference between mean scores of reading comprehension among students who attended reading lessons using metacognitive strategy and those who used the conventional approach in post-test?

Ho3: There is no significant difference in reading comprehension performance in using metacognitive strategy in pre-and post-tests after the treatment?

Literature Review

Metacognition is defined as awareness or analysis of one's own learning or thinking processes. Chamot and O'Malley (1987) define metacognitive strategies as planning, prioritizing, setting goals, and self-management. Metacognitive strategies are the activities in which students become conscious of their thinking process while doing the reading task. Metacognitive reading strategies is defined as a series of mental activities and processes in which students are triggered to think and monitor their improvement in accomplishing a cognitive task; these mental activities are planned, goal-directed, and future-oriented. According to Iwai (2011), planning, monitoring, and evaluation are three steps in metacognition processing.

Numerous research has identified the major role of metacognition in text comprehension, and they claim that metacognitive abilities differentiate between good and poor readers (Meniado, 2016; Montaghani & Mahdavi-Zafarghandi, 2016; Bećirovic et al., 2017; Gangl et al., 2018; Ajideh et al., 2018; Hapsari, 2019; Muhid et al., 2020; Deliany & Cahyono, 2020; Kung & Aziz, 2020; Manh Do et al., 2021). Some studies suggest a positive correlation between the use of metacognitive reading strategies and reading scores (Alicı & Serdaroğlu, 2016; Memiş & Kandemir, 2019). However, some studies found no significant relationship between teaching metacognitive reading strategies and reading improvement among students (Meniado, 2016; Surlitasari & Premini, 2018).

Some studies investigated the effect of teaching metacognitive strategies on reading comprehension in high school students and school contexts (e.g., Mokhtari & Sheorey, 2002 & Mokhtari et al., 2018). However, few studies have concentrated on explicitly teaching metacognitive reading strategies for international students in Malaysian tertiary education. Gaining insights into the English reading language of L2 International learners majoring in different majors in Malaysia is crucial since it may provide us with closer perspectives regarding obstacles encountered in reading texts. Most related studies have been conducted in the socio-cultural, multilingual, and educational contexts of the Asian sub-continent (Alhaqbani & Riazi, 2012). To comprehensively view the effect of teaching metacognitive strategies on reading comprehension in college and university contexts, the researcher summarized all past studies.

Some studies were carried out in EFL contexts. They found relatively positive effects of teaching metacognitive strategies on reading comprehension scores such as Salataci and Akyel (2002) in the Turkish context, Ikeda and Takeuchi (2006) in the Japanese context, Cubukcu (2008), Ismail and Tawalbeh (2015), Montaghmi and Mahdavi-Zafarghandi, 2016; Bećirovic et al., 2017; Gangl et al., 2018; Ajideh et al., 2018; Hapsari, 2019; Muhid et al., 2020; Deliany and Cahyono, 2020; Kung and Aziz, 2020; Manh Do and Le Thu Phan, 2021; Manh Do et al., 2021; Hasaskhah, Taghi Montaghmi, 2016 and Ajideh et al., 2018). Much of the current literature on teaching metacognitive reading strategies in university contexts failed to explain the procedure of teaching metacognitive strategies in the classroom.

The underlying theories of this study are schemata theory and constructivism theories. A schema is theoretically defined as a mental structure of generic concepts stored in memory. Schemata is considered organized background knowledge, leading readers to predict text aspects (Duke & Pearson, 2017 & Jian-ping & Zang Li-sha, 2016). Constructivism theory considers cognitive development and learners' deep understanding (Rao, 2018). Hence, students' degree of comprehension and their ability to construct meaning is a fundamental aim of the learning process in the current study. Metacognition has its roots in the constructivism theory of learning which was proposed by Piaget (1963) and Vygotsky (1978). In schemata theory, reading is an active process in which the reader reconstructs meaning from text by connecting old knowledge to the new information they gained.

Methods

Research Design

The present study employs a quasi-experimental design, a nonrandomized control group, a pre-test, and a post-test to examine the effect of using online instruction of metacognitive strategies on reading comprehension. In this design, experimental and control groups received pre-test and post-test, but the groups did not require pre-experimental sampling equivalence (Ary et al., 2010). The sampling method was convenient sampling, a non-probability sampling where the sample is taken from a group of undergraduate students who were studying in the same university, so collecting data would be convenient.

Population

The population for this study was international undergraduate students who intended to improve their general English and academic literacy skills to meet the language proficiency requirement at

the University Putra Malaysia. The study was conducted in September 2019. According to their placement test results at ELS, participants' level of language proficiency was 106 or B1 intermediate level. In every research design, determining sample size is a fundamental step requiring appropriate planning. For this study, the experimental group participants were 35, and the control group was 35.

Research Instruments

This study selected IELTS reading tests from the Cambridge IELTS academic module (Volume nine) as pre-test and post-test because they are standard and reliable. There are two reasons why the researcher has chosen IELTS reading to measure students' reading comprehension. The rationale for choosing the IELTS academic reading tasks is that these texts are standardized reading tests, and their level of difficulty had been meticulously measured before testing. Another reason is that IELTS reading tests are chosen from academic, scientific, and authentic texts. Therefore, the researcher ensures that these reading comprehension texts are validated in terms of authenticity and degree of difficulty. The IELTS reading section includes three different passages and 40 questions designed to test a wide range of reading skills. These include reading for gist, reading for main ideas, reading for details, skimming, understanding the logical argument, and recognizing writers' opinions, attitudes and purpose.

The second instrument in the present study is the Metacognitive Awareness of Reading Strategies Inventory (MARSİ), developed by Mokhtari and Sheorey (2002) to identify students' awareness of metacognitive strategies in academic reading. They developed the metacognitive awareness inventory based on the input received from experts, an in-depth review of the literature, and identifying strategies used by skilled readers. Exploratory factor analysis was used to select 60 items. Subsequently, the researchers narrowed the number of items to 30, administering the inventory to an experimental group. The reliability test revealed that the MARSİ has an overall reliability of 0.89. Other subscales had high reliability: .92 global reading, .87 support reading strategies, and .79 problem-solving. The expert judges examined and measured validity by comparing it with students' self-reported reading ability. Therefore, the MARSİ is a reliable and valid instrument. The inventory has three subscales: global reading strategies, support strategies, and problem-solving strategies. This questionnaire is appropriate for college students based on Mokhtari and Reichard (2004). The MARSİ consists of 30 items using three individual subscales: global reading, problem-solving, and support strategies.

The final instrument was the semi-structured interview to understand students' perceptions of using metacognitive strategies to support the quantitative data. The reason for using a semi-structured interview is the flexibility to modify the format and sequence of the questions during the interview. Moreover, the interview questions were reviewed and modified by the panel of TESL experts to ascertain that the questions were clear and appropriate. The interview questions can be found in Appendix 1.

Treatment

The students in the experimental group participated in 14-session strategy training. Every session was held twice a week and took 45 minutes. The researcher used the Complete IELTS

textbook as this book includes different academic texts. The researcher trained students based on the CALLA teaching strategy model consisting of five stages:

A) **Preparation:** At this stage, the teacher introduces metacognitive strategies such as global reading strategies, problem-solving, and supportive strategies developed by Mokhtari and Reichard (2002a).

B) **Presentation:** This phase focused on modeling the learning strategy. The preparation and planning, the selection of reading comprehension strategies, monitoring of strategy selection and use, orchestrated use of several strategies, and evaluation of the effectiveness of metacognitive strategies were illustrated through several examples.

C) **Practice:** In this phase, students had the opportunity to practise the learning strategies with an authentic learning task in breakout rooms. The students became aware of multiple strategies available to them.

D) **Self-evaluation:** Activities to develop students' self-evaluation insights included self-questioning and debriefing discussions after strategy practice. In learning logs, students recorded the results of their learning strategies applications, checklists of strategies used, and open-ended questionnaires.

E) **Expansion:** In this final phase, students were encouraged to a) use the strategies that they found most effective, b) apply these strategies to new contexts, and c) devise their own individual combinations and interpretations of metacognitive learning strategies.

Research Procedure

Once students signed the consent forms, the researcher administered the reading IELTS test as a proficiency test to 70 students to measure students' reading comprehension performance in experimental and control groups. Afterward, the researcher played the teacher's role and started teaching IELTS academic reading texts to both groups of control and experimental groups over 14 weeks. The researcher modeled using different kinds of reading strategies online using Microsoft Teams. The control group received a conventional method of teaching reading strategies such as activating background knowledge, skimming, scanning, identifying main ideas and supporting ideas, etc. The only difference between the two groups was the experimental group's planning, monitoring, and evaluation of metacognitive strategies. After completing the intervention, the post-test of IELTS was administered to both groups of students to measure their reading comprehension performance.

Data Analysis

To address the research question regarding investigating the effect of explicit teaching of metacognitive strategies on reading comprehension of undergraduate students, the researcher ran the normality test using the graphical method and statistical parameters such as skewness and kurtosis. The researcher used the inferential method to evaluate the main research hypotheses, including a two-way repeated measure analysis of variance followed by the Bonferroni test for mean comparison between the control and experimental group (pre and post-tests).

The interviews were audio-recorded, transcribed, summarized and coded, and discussed. Qualitative content analysis was deemed suitable for the current study, as it considers the context in which the interview was produced. In the current qualitative content analysis, structuring and filtering the related content and analyzing and defining them into certain categories were deemed

appropriate. The interviews were filtered to find statements that fit into the categories. The categories were developed inductively. The data were coded using a structured category system. (Mayring, 2000).

Findings

The first assumed null hypothesis to address the first question of the study was as follows:

There is no significant difference in reading comprehension performance in using metacognitive strategy in pre-and post-tests after the treatment. RM ANOVA was applied to compare students' reading comprehension mean scores on pre-test and post-test in the metacognitive experimental group to test this hypothesis.

Descriptive statistics for the total IELTS reading score were done prior to the statistical analysis. As it can be seen (Table one), The mean IELTS reading scores were improved after the intervention for both control and experimental groups. To evaluate these changes, a two-way RM-ANOVA was applied.

Table 1. *Descriptive statistics of IELTS reading score in both groups*

Variable	Group	N	Mean	SD
PRE.READING	Experimental	33	3.833	0.608
	Control	32	3.672	0.518
POST.READING	Experimental	33	3.754	0.567
	Control	32	5.333	0.525

The findings for within-subjects effect of repeated measures of time were significant ($F(2, 126) = 269.445$, $p < 0.001$, $h^2 = 0.810$). These results revealed that the interaction between groups and time was significant ($F(2, 126) = 6.504$, $p = 0.002$, $h^2 = 0.094$). It is indicated that the changes in IELTS reading scores in the two groups were significantly different across times (pre-test and post-test). The researcher conducted a post-hoc test (Bonferroni) to test the related hypothesis to measure and compare the mean scores.

Table 2. *Summary of RM-ANOVA for IELTS reading*

Source	Df	MS	F	p-value	η^2
Test	2	46.326	269.445	<0.001	0.810
Group	1	9.41	21.451	<0.001	0.254
Test * Group	2	1.118	6.504	0.002	0.094

According to the result of the Bonferroni test, the difference in IELTS reading scores between pre-test and post-test was statistically different ($p < 0.05$) in both control and experimental groups. These results also revealed that the effect size of time in the experimental group ($h^2 = 0.852$) was larger than the control group ($h^2 = 0.760$).

Table 3. *Pairwise comparison between pre-test and post-test for IELTS reading in both control and experimental groups*

Group	(I) Test	(J) Test	Mean Difference (I-J)	SE	p-value	η^2
Experimental	1	2	-1.500*	0.093	<0.001	0.852
Control	1	2	-1.188*	0.094	<0.001	0.760

* The mean difference is significant at the .05 level. b Adjustment for multiple comparisons: Bonferroni

Regarding the second research question, “What are participants' most commonly used metacognitive reading strategies?” The results (Table five) show that all mean scores were above three (median of scale), indicating that the level of using these strategies among students was more than moderate level (Mokhtari & Reichard, 2004).

Table 5. *Descriptive statistics of reading strategies among students*

	Minimum	Maximum	Mean	Std. Deviation
Global strategies	2.780	4.220	3.511	0.478
Support reading strategies	2.500	4.380	3.468	0.378
Problem-solving strategies	2.310	4.460	3.427	0.580
Overall	2.570	4.350	3.469	0.427

To measure the differences in the mean scores of these three subscales, the researcher conducted a one-way repeated measure ANOVA to evaluate the differences among strategies. Mauchly's test results showed that the assumption of Sphericity was not violated ($\chi^2=1.171$, $p=0.557$). Based on the results of repeated measure ANOVA, differences among these three strategies were not statistically significant $F_{(2, 64)} = 0.733$, $P>0.05$, $\eta^2= 0.022$). These results showed that the highest mean score belonged to global reading strategies ($M= 3.511$, $SD=0.478$), followed by Support reading strategies ($M=3.468$, $SD=0.378$) and problem-solving strategies ($M= 3.427$, $SD=0.580$). According to Kouider Mokhtari and Carla Richard (2002), all the mean scores were categorized as 3.5 or higher = High, 2.5 – 3.4 = Medium, and 2.4 or lower = Low.

According to these results, 9.1% of respondents had a low frequency of problem-solving reading strategies. These results indicated that 63.6% of respondents used it at the medium level for global reading strategies, and only 36.4% of respondents used it at a high level. The results for supporting strategies indicated that 60.6% of students used this strategy at a high level, while only 39.4% of respondents used those strategies at a medium level.

Findings of Interview with Experimental Groups

In this study, almost all the interviewees confirmed that they are concerned about their lack of knowledge in lexical resources and grammar in reading comprehension. A summary of the findings on the research question is demonstrated in Table 6. Therefore, the first theme that emerged was a lack of vocabulary and grammatical knowledge. Initially, the way EFL students learned English vocabulary seemed to be isolated and de-contextualized. That is to say, a new word is learned as “a word with one meaning.” Characteristically, English teachers directly tell the meaning of new words, and then EFL students would write the word, which means down, and then memorize it. This kind of vocabulary learning method has made EFL students forget new vocabulary as they don't know how a word is used in the context. For example, student B mentioned,

“I forget the words soon after the quizzes. And I cannot recognize them whenever I come across them in reading English books.”

Student D commented:

“A lot of time I feel so frustrated in reading, sometimes I spend so much time looking up vocabulary and ...sometimes you don't have much time for that. When I was in high school, I would rather give up and leave it to the English teacher and wait for their explanation or translation”.

Table 6. Coding scheme for students' problems in reading academic texts

Participants	Q1 What are your problems while reading academic texts?	Coding scheme
B	I forget the words meaning soon. And I cannot recognize them whenever I encounter them in reading English books."	Lack of exposure to new vocabulary in different contexts
D	"When I was in high school, I would rather give up and leave it to the English teacher and wait for their explanation or translation".	Too much dependence on EFL teachers
E	"But I think my vocabulary knowledge is too less. I think I might start to read when my vocabulary is built up".	Lack of vocabulary

The second question was related to students' awareness of reading strategies: "what strategies did you use before reading, during, and after reading"?

When asked about what they might do in the planning stage of reading, students listed activities such as setting the purpose for reading, using prior knowledge, previewing text before reading, skimming to note text characteristics, and checking how text content fits the purpose and making predictions. Almost all six students mentioned they preview the text and set a goal for reading. The additional planning strategies were predicting topic range and predicting information location.

Regarding monitoring strategies, students reported that underlining, circling, or highlighting information in the text (100%) and pausing for a break to think when needed (80%) were cited most often as important activities by participants. They used reference materials (dictionary, textbook, etc.) to resolve comprehension problems (90%), checking if the text made sense to them. They use available features such as tables, charts, section titles, etc., or typographical aids (italics, bold, different word colors, etc.) (60%) and try to maintain their focus during reading. 60% of the interviewed students also used other monitoring strategies such as trying to guess the meaning of unfamiliar words by contextualizing them (using familiar words, pictures, other sentences, etc.). They tend to visualize the information by imagining and drawing images. However, students C and F were unable to use other strategies, such as trying to guess the meaning of unfamiliar words and visualizing the information by imagining and drawing images.

Student C mentioned:

"When the teacher asked us to guess the meaning of unknown words, I hardly ever can guess the correct meaning from the context. I think I need to learn more vocabulary to understand the text better."

Students used monitoring strategies to different degrees. Male students tend to use guessing meaning more often than female students. However, females used more reference materials such as dictionaries, pausing strategies, typographical aids, and visualizing more than their male counterparts.

Students A reported:

"I visualized the information, especially in reading academic texts, because it helped me to understand it better. So, I often imagined the situations where certain things happen and how or why that happen."

Student F commented:

“I thought it was fascinating to me because I’d never done that before by visualizing your thinking. It encourages me to do more thinking like this. Besides, I feel like reading something not in the textbook. I think I am a better reader now because I found that I understand more by constantly thinking about my reading process, and I remember the content of that article longer. It stays in my mind longer”.

When it comes to evaluating strategies, almost all students mentioned that if they don’t understand the passage, they reread it to understand it better. %50 percent of students mentioned they usually summarize or paraphrase the key information. %60 of students mentioned that they assess their understanding by reflecting critically and evaluating the information on the test. %60 percent of them reported if one strategy doesn’t work, they may try other strategies. % 45 of them reported that they check if they accomplished their reading objective set at the beginning of the reading.

Students used evaluation strategies moderately compared to planning and monitoring strategies. Male students mostly used rereading, checking prediction, and summarizing, whereas female students used rereading and summarizing more. While they use checking prediction, checking reading objective accomplishment, judging strategies, and making reflection and evaluation moderately. It is worth mentioning that students used evaluation strategies to recapitulate the information they got and recheck things they did not understand.

Of six students interviewed, they cited planning strategies most frequently (eight times), followed by monitoring strategies (six times) and evaluating strategies (four times). They regarded planning strategies as the easiest and most frequently used (eight times), whereas they found evaluating strategies the most difficult to apply. All students were able to express, in some form, increased awareness of the various stages of their reading process and attempt to comprehend various expository academic materials. A sample of coding of students' frequently used strategies is illustrated in Appendix 2.

When asked how participating in the study had affected their reading skills, participants replied that the process had had positive results and caused them to change what they did when they read academic materials. One participant stated:

“It has helped me with my finals. Now, I’m not worried about reading everything. I’m jotting down important points and becoming more efficient and effective.”

Another participant also remarked that it changed how he approached the assigned reading for one of his courses.

“Now, I’m not just going through the reading. The first thing I do is look at the title and sub-title. I make predictions about the passage I’m about to read in my textbook.”

The importance of pausing when needed during reading to reflect briefly on the material was also highlighted by another participant, who remarked:

“I don’t sit too long on one passage...I give myself a break now and then. It energizes me. The information becomes new, and maybe ideas begin to flow at that point.”

The participants appeared to have altered their normal reading routines to include at least one, if not more, of the metacognitive reading strategies introduced by the study. It is important to note that four out of six participants remarked that they could not recall their instructors discussing any type of reading strategies during their courses. “The instructors don’t have the time to go into strategic reading,” said one participant. Another remarked, “Instructors think we know. They should review planning, monitoring, and evaluation with us. That’s encouraging and helps us get interested in reading.”

It appeared that students recognized the time constraints for covering many materials in many college-level courses and the frequent assumption on the part of instructors that students could read and comprehend text easily on their own. However, 100 percent of the participants in the study expressed interest in receiving at least a small amount of guidance from their instructors at all stages of the reading process, especially related to specific types of academic reading. The interview findings suggest that participants perceived learning metacognitive strategies benefited them and needed direct metacognitive strategy training.

Discussion

The finding of this study is consistent with those of Takallou (2011), Ismail and Tawalbeh (2015), Maasum, Maarof, Zakaria, and Yamat (2012), Montaghmi and Mahdavi-Zafarghandi (2016), Tavakoli and Koosha (2016), Ajideh, Zohrabi, and Pournalvar, (2018) who found the positive effect of explicit teaching of metacognitive strategies. It is worth mentioning that previous studies failed to demonstrate how they conducted teaching metacognitive strategies, and the duration of treatment in previous studies was between six and eight sessions. While the current study modeled each strategy using the CALLA model and metacognitive reading strategies to raise students’ awareness of applying those strategies.

Some researchers have expressed skepticism about the effectiveness of explicit strategy instruction. Ali Gholami and Ahghar (2012) and Pei (2014) showed that teaching metacognitive strategies had no significant effect on reading comprehension scores. There are several possible explanations for this result, as students had a low level of language proficiency and limited linguistic skills, which can negatively affect their reading. As the participants of this study were at an intermediate level, they seemed to have relatively good linguistic knowledge and consequently benefited from explicit training in metacognitive strategies. It is worth noting that no single strategy is used in isolation but rather in an orchestrated manner with other strategies as part of a process (Wing, 2017). This should not suggest that strategy instruction is not effective but rather give teachers increased insight into the various factors they consider when strategy instruction is undertaken.

The findings of this study are supported by Tavakoli (2014) and Yuksel and Yuksel (2012), who reported moderate awareness and use of metacognitive reading strategies. However, this outcome is contrary to those of Pammu et al. (2014) and Meniado’s (2016) findings which found that participants mostly used problem-solving and supporting strategies. They pointed out that

metacognitive strategies vary depending on language learners' settings and orientations. The participants in those studies had higher language proficiency, so it is expected that they have lesser language and learning barriers as compared to the respondents of the current study who had an intermediate level of language proficiency (Ahmed & Al-Sohbani, 2013).

When the metacognitive reading strategies are grouped according to sub-categories, the study revealed that the least frequently used are those that fall under the Problem-Solving Strategies (PROB). Considering the linguistic difficulties of the respondents, they have to find strategies that help them unlock the barriers (problems) in comprehending a text. This result supports the findings of Al-Sohbani (2013) and Yuksel and Yuksel (2012), having EFL students in Yemen and Turkey actively use Problem Solving Strategies (PROB) at a high level.

Conclusion

The aim of the study was to identify the effect of explicit instruction of metacognitive reading strategies on undergraduate students' online reading comprehension. The quantitative and qualitative findings showed that explicit instruction of metacognitive reading strategies could positively enhance learners' reading ability. Therefore, the teachers should teach metacognitive strategies explicitly to raise learners' awareness of strategies and allow students to select appropriate strategies to accomplish their learning goals. Material developers could play an important role by designing and incorporating appropriate tasks and exercises into the reading materials to encourage a wide range of strategy applications in the learning experiences and enhance learner independence and autonomy. They need to consider the individual differences among learners and design tasks with various forms to ensure all students.

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References

- Aghajani, M. (2019). Critical Thinking Skills, Critical Reading and Foreign Language Reading Anxiety in Iran Context. *International Journal of Instruction*, 12 (3), 219–238. DOI: 10.29333/iji.2019.12414a
- Ajideh, P., & Pouralvar, K. (2018). Investigating the Relationship between Learning Styles and ESP Reading Strategies in Academic Setting. *International Journal of Applied Linguistics & English Literature*, 7(3), 156-164. <https://doi.org/10.7575/aiac.ijalel.v.7n.3p.156>
- Ajideh, P., Zohrabi, M., & Pouralvar, K. (2018). The Effect of Explicit Instruction of Metacognitive

- Reading Strategies on ESP Reading Comprehension in Academic Settings. *International Journal of Applied Linguistics and English Literature*, 7(4), 77-86.
<https://doi.org/10.7575/aiac.ijalel.v.7n.4p.77>
- Alici, H. İ., & Serdaroglu, İ. C. (2016). The Relationship between Metacognitive Awareness of Reading Strategies and Success of Science of the 5th Grade Students in Secondary School. *Participatory Educational Research*, 6(2), 61–70. <https://doi.org/10.17275/per.16.spi.2.7>
- Amir, A., Hasanuddin, W. S., & Atmazaki. (2019). The contributions of reading strategies and reading frequencies toward students' reading comprehension skill in higher education. *International Journal of Engineering and Advanced Technology*, 8(6 Special Issue 3), 593–597.
<https://doi.org/10.35940/ijeat.F1105.0986S319>
- Anderson, N. L., & Briggs, C. (2011). Reciprocity Between Reading and Writing: Strategic Processing as Common Ground. *The Reading Teacher*, 64(7), 546-549. <https://doi.org/10.1598/rt.64.7.12>
- Andrianatos, K. (2019). Barriers to reading in higher education: Rethinking reading support. *Reading and Writing (South Africa)*, 10(1), 1–9. <https://doi.org/10.4102/rw.v10i1.241>
- Azmuddin, R. A., Nor, N. F. M., & Hamat, A. (2017). Metacognitive online reading and navigational strategies by science and technology university students. *GEMA Online Journal of Language Studies*, 17(3), 18–36. <https://doi.org/10.17576/gema-2017-1703-02>
- Bećirovic, S., Brdarević-Čeljo, A., & Sinanović, J. (2017). The use of metacognitive reading strategies among students at International Burch University: A case study. *European Journal of Contemporary Education*, 6(4), 645–655. <https://doi.org/10.13187/ejced.2017.4.645>
- Cabinda, M. (2016). Purported use and self-awareness of cognitive and metacognitive foreign language reading strategies in tertiary education in Mozambique. *Afrika Focus*, 29(1).
<https://doi.org/10.21825/af.v29i1.4818>
- Chamot, A. U., & O'Malley, J. M. (1987). The cognitive academic language learning approach: A bridge to the mainstream. *TESOL Quarterly*, 21(2), 227–249. <https://doi.org/10.2307/3586733>
- Dardjito, H. (2019). Students' metacognitive reading awareness and academic English reading comprehension in EFL context. *International Journal of Instruction*, 12(4), 611–624.
<https://doi.org/10.29333/iji.2019.12439a>
- Deliany, Z., & Cahyono, B. Y. (2020). Metacognitive reading strategies awareness and metacognitive reading strategies use of efl university students across gender. *Studies in English Language and Education*, 7(2), 421–437. <https://doi.org/10.24815/siele.v7i2.17026>
- Ghaith, G., El-Sanyoura, H. (2019). Reading comprehension: The mediating role of metacognitive strategies. *Reading in a Foreign Language*, 31(1), 19–43.
- Gholami, M., & Ahghar, M. R. (2012). The Effect of Teaching Cognitive and Metacognitive Strategies on EFL Students' Reading Comprehension Across Proficiency Levels. *Procedia - Social and Behavioral Sciences*, 46, 3757–3763. <https://doi.org/10.1016/j.sbspro.2012.06.142>
- Hapsari, A. D. (2019). Metacognitive Strategy Training in The Teaching of Reading Comprehension: Is It Effective in EFL Classroom? *Journal of English Teaching and Learning*, 9(1). Retrieved from <http://riset.unisma.ac.id/index.php/LANG/article/view/5091/pdf>
- Hong-Nam, K., & Page, L. (2014). Investigating Metacognitive Awareness and Reading Strategy Use of EFL Korean University Students. *Reading Psychology*, 35(3), 195-220.
<https://doi.org/10.1080/02702711.2012.675418>
- Ikeda, M., & Takeuchi, O. (2006). Clarifying the differences in learning EFL reading strategies: An analysis of portfolios. *System*, 34(3), 384-398. <https://doi.org/10.1016/j.system.2006.04.007>
- Iwai, Y. (2016). The Effect of Explicit Instruction on Strategic Reading in a Literacy Methods Course. *The International Journal of Teaching and Learning in Higher Education*, 28, 110-118.
- Iwai, Y. (2011). The effects of metacognitive reading strategies: Pedagogical implications for EFL/ESL teachers. *The Reading Matrix* 11 (2), 150, 159.
- Kung, L. Y., & Aziz, A. A. (2020). Action research on metacognitive reading strategies instruction to

- improve reading comprehension. *International Journal of English Language and Literature Studies*, 9(2), 86-94. <https://doi.org/10.18488/journal.23.2020.92.86.94>
- Lee, I., & Mak, P. (2018). Metacognition and metacognitive instruction in second language writing classrooms. *Tesol Quarterly*, 52(4), 1085–1097. <https://doi.org/10.1002/tesq.436>
- Manh Do, H., & Le Thu Phan, H. (2021). Metacognitive Awareness of Reading Strategies on Second Language Vietnamese Undergraduates. *Arab World English Journal*, 12(1), 90–112. <https://doi.org/10.24093/awej/vol12no1.7>
- Memiş, A. D., & Kandemir, H. (2019). The Relationship Between the Study Habits and Attitudes and Metacognitive Reading Comprehension Self-Awareness, Reading Comprehension, Reading Attitudes. *World Journal of Education*, 9(4), 133-145. <https://doi.org/10.5430/wje.v9n4p133>
- Meniado, J. C. (2016). Metacognitive reading strategies, motivation, and reading comprehension performance of Saudi EFL students. *English Language Teaching*, 9(3), 117–129. <https://doi.org/10.5539/elt.v9n3p117>
- Miller, K., & Merdian, H. (2020). It is not a waste of time!” academics’ views on the role and function of academic reading: A thematic analysis. *Journal of University Teaching and Learning Practice*, 17(2), 3-15.
- Mokhtari, K., & Sheorey, R. (2015). Measuring ESL students’ awareness of reading strategies. *Journal of Developmental Education*, 25, 2-10.
- Montaghami, F. T., & Mahdavi-Zafarghandi, A. (2016). The Effect of Explicit Teaching of Online Metacognitive Strategies on EFL Learners’ L2 Reading Comprehension. *Journal of Applied Linguistics and Language Research*, 3(4), 266–281.
- Muhid, A., Amalia, E. R., Hilaliyah, H., Budiana, N., & Wajdi, M. B. N. (2020). The effect of metacognitive strategies implementation on students’ reading comprehension achievement. *International Journal of Instruction*, 13(2), 847–862. <https://doi.org/10.29333/iji.2020.13257a>
- Oxford, R. L. (2011). Strategies for learning a second or foreign language. *Language Teaching*, 44(2), 167-180. doi:10.1017/S0261444810000492
- Pammu, A., Amir, Z., & Maasum, T. N. R. T. M. (2014). Metacognitive reading strategies of less proficient tertiary learners: a case study of EFL learners at a public university in Makassar, Indonesia. *Procedia - Social and Behavioral Sciences*, 118, 357–364. <https://doi.org/10.1016/j.sbspro.2014.02.049>
- Rianto, A. (2021). Indonesian EFL university students’ metacognitive online reading strategies before and during the covid-19 pandemic. *Studies in English Language and Education*, 8(1), 16–33. <https://doi.org/10.24815/siele.v8i1.18110>
- Salataci, R., & Akyel, A. (2002). Possible Effects of Strategy Instruction on L1 and L2 Reading. *Reading*, 14(1), 1–17. <https://doi.org/10.1080/02702710802412081>
- Surlitasari, D., & Premini, D. (2018). Exploring the Relationship between Metacognitive Strategies and Reading Comprehension among Senior High School Students Desi Surlitasari Dewi 1, Deviani Premini 2. *Anglo-Saxon*, 9(2), 156–163.
- Susanto, H. (2020). Reading Theories and Reading Comprehension; Review and Discussed. *E-Structural*, 2(2), 153–159. <https://doi.org/10.33633/es.v2i2.3231>
- Takallou, F. (2011). The effect of metacognitive strategy instruction on EFL learners’ reading comprehension performance and metacognitive awareness. *Asian EFL Journal*.
- Tavakoli, H., & Koosha, M. (2016). The effect of explicit metacognitive strategy instruction on reading comprehension and self-efficacy beliefs: The case of Iranian University EFL students. *Porta Linguarum*, 25, 119–133.
- Ulu, H. (2019). Examining the Relationships Between the Attitudes Towards Reading and Reading Habits, Metacognitive Awarenesses of Reading Strategies and Critical Thinking Tendencies of Pre-Service Teachers. *International Journal of Contemporary Educational Research*, 6(1), 169-182. <https://doi.org/10.33200/ijcer.549319>

- Wing, S. (2017). A Study of the Effects of Metacognitive Instruction on Reading Comprehension in the Primary Classroom (Thesis, Concordia University, St. Paul). Retrieved from https://digitalcommons.csp.edu/cup_commons_grad_edd/99
- Yapp, D., de Graaff, R., & van den Bergh, H. (2021). Effects of reading strategy instruction in English as a second language on students' academic reading comprehension. *Language Teaching Research*, 1-24. <https://doi.org/10.1177/1362168820985236>
- Yuksel, I., & Yuksel, I. (2012). Metacognitive awareness of academic reading strategies. *Procedia – Social and Behavioral Sciences*, 31, 894–898. <http://dx.doi.org/10.1016/j.sbspro.2011.12.164>

Appenices 1

Interview protocol questions

- (1) What are your problems while reading academic texts?
- (2) For reading passages assigned to you, what strategies did you apply before reading, during, and after reading?
- (3) Over the 14 weeks, what strategies did you apply more when you were reading texts?
- (4) Explain a difficult experience while reading the IELTS text this week. What strategies could you use to overcome this difficulty?
- (5) Explain a successful experience while reading English text over this week. What strategy did you apply to assist you in comprehending a text? If you did it again, would you do it differently?
- (6) Will you use metacognitive strategies in the future? Why?

Appendix 2 (Coding scheme)

Participants	strategy	strategies cited	Types of metacognitive strategies
SA	Use of dictionary	I utilize dictionaries to help me understand what I read.	(monitoring)
	Self-knowledge	First, I think about what I know about this topic to help me understand	(planning)
	Deduction	what I read. I analyze and assess the information critically	(Evaluating)
SB	Activating prior Knowledge	in the text	
	Prediction	When I am reading, I guess what the material is about. I use dictionaries to help me comprehend what I read.	(planning) (monitoring)
SC	Using reference materials		
	Setting purpose	When I am reading, I have a purpose in my mind. When I am distracted, I Get back on track again when I lose concentration during reading, I try to get back on track	(Planning) (monitoring)
	maintain my focus during reading		

Artificial Intelligence in Language Learning: What Are We Afraid of

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Abstract

Artificial Intelligence (AI) has been an essential part of human lives in the XXI century. The research paper focuses on examining the role of AI in English language learning, how effective it is, and what practical methods can be used to apply it effectively. AI has the potential to transform the functioning of the education system, increase the competitiveness of institutions and empower teachers and students at all levels. With intelligent content of instructions and testing, artificial intelligence allows focusing on the needs of the students. This review paper discusses what we are afraid of AI in language learning. The survey was conducted in 2021 for English language learners at Ukrainian Universities: Kyiv National University of Trade and Economics and Zhytomyr Ivan Franko State University. The study analyzes the responses of 418 students. Responses show a very high level (83-100%) of understanding AI in language learning. It determines the opinion that cyber-attacks will happen about future personalized accounts. It was the risk of losing personal information. Students fear losing a natural environment with speakers and their real emotions. Furthermore, this paper evaluates a very high level (98%) of the learners' spontaneity and creativity lack using AI in language learning. The report concludes with the notion that using AI in language learning requires the wisdom of human content designers and educational experts.

Keywords: Artificial Intelligence, language learning, foreign languages, online learning, Ukrainian Universities

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Introduction

Artificial Intelligence (AI) is an essential part of human lives, the important role of everything big and small; it is everywhere. With the technology of deep learning in medicine, AI has already reached an expert level in the diagnosing diseases and speech synthesis by reading the neural activity of the cerebral cortex. AI can compose music and literary drafts, and draw pictures by analyzing the works of artists, writers, and musicians. AI can already generate realistic photos and videos that are difficult to distinguish from real ones. It recognizes a person's face to protect access to data on gadgets, such as banking. Chatbots already exist and are becoming increasingly popular to improve customer communication based on artificial intelligence. The intelligent home system is one of the most popular technologies, which can monitor home security, control electricity and water consumption, network condition, clean the house, and generally make our life more comfortable. AI can distinguish odors and the mimic work of the human nervous system with the task of monitoring the environment ecology, as well as improving occupational safety at work. It is widely used in gaming. Studying the environment by trial and error based on AI is also an integral part of human development.

Moving from researchers' labs to our homes and gadgets, AI is penetrating our lives. The advantages of artificial intelligence are undeniable: the ability to process vast amounts of information in a short time, increase efficiency, and convenience, eliminate long-term processes and automate the usual with no fatigue.

AI is an essential part of the educational process. It can transform the functioning of the education system, increase the competitiveness of institutions and empower teachers and students at all levels. Voice assistants, such as Amazon Alexa, Apple Siri, and Google Home, allow interaction with various learning materials anywhere and anytime without communicating with the teacher. Intelligent content means various learning materials, from digitized textbooks to customized interfaces. Using the possibilities of artificial intelligence, students can study multiple courses and curricula worldwide.

Artificial intelligence also penetrates the study of languages. But what are we afraid of AI?

Literature Review

The Concept and Components of Artificial Intelligence (AI) and the History of Its Development

The term artificial intelligence was constructed the first in 1956 by John McCarthy (McCarthy et al., 2006). "At that time, the researchers came together to clarify and develop the concepts around thinking machines which up to this point had been quite divergent. McCarthy is said to have picked the name artificial intelligence for its neutrality; to avoid highlighting one of the tracks being pursued at the time for the field of thinking machines that included cybernetics, automata theory and complex information processing. The proposal for the conference said, "The study is to proceed on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it." (as cited in Marr, 2018, para. 2).

AI refers to a broad field of science encompassing computer science, psychology, philosophy, linguistics, mathematics, and others. It becomes evident that there are many points of view on AI, and many definitions exist.

Dictionary definitions focus on AI “is a sub-field of computer science and how machines can imitate human intelligence: a branch of computer science dealing with the simulation of intelligent behavior in computers; the capability of a machine to imitate intelligent human behavior” (as cited in Merriam-Webster).

“Definitions of artificial intelligence begin to shift based on the goals that are trying to be achieved with an AI system. Generally, people invest in AI development for one of these three objectives: build systems that think exactly like humans do (strong AI), just get systems to work without figuring out how human reasoning works (weak AI), and Use human reasoning as a model but not necessarily the end goal” (as cited in Marr, 2018, para. 7).

“Amazon defines AI as the field of computer science dedicated to solving cognitive problems commonly associated with human intelligence, such as learning, problem-solving, and pattern recognition. Machine learning is so important to Amazon, they stated, Without ML, Amazon.com could not grow its business, improve its customer experience and selection, and optimize its logistic speed and quality (as cited in Marr, 2018, para. 10).

Machine and deep learning are the priority for Google AI and its tools to create smarter, more useful technology and help as many people as possible from translations to healthcare to make our smartphones even smarter. Facebook AI Research is committed to advancing the field of machine intelligence and is creating new technologies to give people better ways to communicate. IBM’s three areas of focus include AI Engineering, building scalable AI models and tools; AI Tech, where the core capabilities of AI such as natural language processing, speech and image recognition, and reasoning are explored and AI Science, where expanding the frontiers of AI is the focus” (as cited in Marr, 2018, para. 12).

Artificial Intelligence and Education

Entering the 21st century has been accompanied by many radical changes in the educational system as far as learning inputs, processes, and outcomes are concerned. Intelligent machines as applications of AI contribute to changing the roles played by schools, teachers, and learners. They will also change the traditional and virtual patterns of interaction in the educational milieu. Teachers and learners will be dealing with interactive machines to share educational experience, and achieve the required objectives. These machines will offer interactive educational platforms that conduct discussions with the students and respond to their questions and reactions. They will solve traditional classroom problems such as paying attention and motivation, caring for individual differences among learners, and supporting those with special needs. With feedback, improving the levels of student achievement, and developing positive attitudes towards teaching/learning, they will also provide solutions to the problem of interaction in large classrooms. These aspects will be directly and positively affected by employing AI applications in the teaching/learning process (Dickson, 2017).

Al-Gayyar, (2013) indicates that AI applications vary, and intelligent systems of online electronic learning are among the most essential intelligent educational systems. These are the most significant applications of AI use in Education. They are the outcome of merging many systems and applications in the field of AI such, as Intelligent Tutoring Systems, Activating the Internet, Activating hypermedia, and Activating distance E-education (pp. 503-504). Muhammad, (2014) describes various applications of AI, “which include electronic neural networks, developed hybrid systems, applications of developmental algorithms, electronic auto-copying, adaptive electronic platforms, bio-robots, Nano-technology, chemical and organic systems, and advanced controlling systems” (p. 18).

Borge, (2016) analyzes the importance of AI applications in the results of student evaluation processes at the university and pre-university stages. AI makes it easy for instructors to measure their students’ level precisely, which is something often difficult to achieve. It enables university teaching staff to assess the status of the educational processors and determine deficiencies in the lectures, scientific content, and the educational material introduced to students. AI helps meet the needs of each student according to their abilities and needs by submitting home assignments and monitoring the scores obtained by each student because it has intelligent programs that identify common mistakes. It gives the instructors hints as to what the problems are, and introduces instant feedback in a file designed separately for each student. Furthermore, AI tools and programs can cope with classroom density (pp. 10-11).

Nowadays, studies refer to the diversification of AI education applications, including programmed learning and other open-source high technology. The importance of AI applications is determined by the ability: - to suit the needs and skills of the learners; - to work according to their educational preferences; - and to monitor the progress rate of each learner. These applications contain tracks that suit all learners despite differences among their levels, boost their learning motivation, and cope with students’ low levels of attention. They provide feedback that indicates student achievement levels and points of weakness and strength in the scientific content. They ensure that the curriculum subjects are integrated parts of each subject, and that the learner has mastered one section before moving on to a more advanced one. The scientific content can be introduced in the form of problems, which the students work out according to their self-study streams. Instructors monitor this process and provide guidance and feedback. AI tutoring systems can replace instructors as they have programs that provide advice automatically and enable learners to use self-study skills (Kamuka, 2015).

Teaching English as a foreign language is regarded as developing communicative competence, which is achieved through knowing how to use language elements and vocabulary to develop the skills of listening, speaking, reading, and writing. It also includes using language to produce texts, and how to use it to understand reading passages. The process of language development is based on communication as a goal and as a process. Therefore, using traditional and digital communication strategies in the teaching/learning processes and activities is necessary. It is required to use AI applications such as simulation and communication programs as they simulate real-life communication situations in English, introduce practical training in language skills, and educational games based on language. Communication tools based on AI help design situations for practicing the accurate pronunciation of letters and words through sound drills and

visual media. Such devices provide exercises for describing and interpreting images and everyday situations, for listening, and for practicing guided pronunciation. They also allow learners to practice language skills and provide feedback for guidance. Some programs have language drills that give training in communication through using language skills to guarantee that learners reach proficiency levels (Barnes-Hawkins, 2016).

Radwan, (2017) indicates that AI can be used to overcome many of the difficulties of teaching/learning English: using Information Retrieval techniques to build the ability to comprehend reading passages; employing Machine Translation to develop students' translation skills; using Automatic Speech Recognition techniques to learn correct pronunciation, using Text-to-Speech techniques for blind and visually impaired students; using open digital language dictionaries to enrich the vocabulary of the student; using intelligent programs to augment speaking skills for English learners; implying a writing evaluation technique to teach paragraph and essay writing.

Data and Methodology

The study used the descriptive-analytic approach to investigate the phenomenon of Artificial Intelligence in language learning. The purpose of a literature review is to answer questions about Artificial Intelligence, its components, and language learning applications, based on a clear, systematic, and replicable search strategy, with inclusion and exclusion criteria of studies. The research focuses on examining the role of AI in English language learning, how effective it is, and what practical methods can be used to apply it effectively.

Research Instrument

A questionnaire was designed to measure the point of view of university students about AI in language learning. The validity of the questionnaire has been revised by twenty-eight of the academic staff specializing in teaching methodology, curricula, and psychological testing. The questionnaire content has been determined as some questions (Table 1):

Table 1. *The questionnaire*

Questions	Answers
1. What does Artificial Intelligence mean?	
2. Where do you use AI?	
3. Does AI have a positive or negative effect on your life?	
4. How do you rate AI in language learning (%)?	
5. What are you afraid of AI in language learning?	

Participants

The sample consists of the students at the Foreign Languages Departments of Kyiv National University of Trade and Economics and Zhytomyr Ivan Franko State University. It was applied to 418 students of English during the first term of the academic year 2021/2022 at three

universities in Ukraine. The participants were last-year students, and proficient English users. All were exposed to online language learning with previous online experiences.

Results

1. What does Artificial Intelligence mean?

All participants answered the question in different ways, for example: it is a robot to perform tasks, it is science and engineering, it is a computerized system, it is our future, it is our life today, it is machine learning, machine intelligence, etc. According to the definitions of Cambridge dictionary (“AI – the study of how to produce machines that have some of the qualities that the human mind has, such as the ability to understand language, recognize pictures, solve problems, and learn” (as cited in Cambridge dictionary)), and Britannica (“the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings” (as cited in Britannica: dictionary)) all answers were structured in four groups as in Table 2.

Table 2. *Participants' answers to the first question, %*

Answers	%
The ability of a computer to perform intelligent tasks	78 %
Computer science	11 %
Life today	9 %
Danger in life	2 %
Total	100 %

Table 2 indicates the following:

- Based on the responses, Artificial Intelligence influences nearly every part of our lives to help improve human efficiencies.
- Responses demonstrate a very high level of understanding of the AI's role in peoples' life.
- A small number of answers refer to fears about the future use of AI. The participants wrote about general anxiety about machine intelligence, the fear of mass unemployment, concerns about super-intelligence, and putting the power of AI into the wrong peoples' hands.

2. Where do you use AI?

Responses to this question covered a wide range of areas of human life, Figure 1.

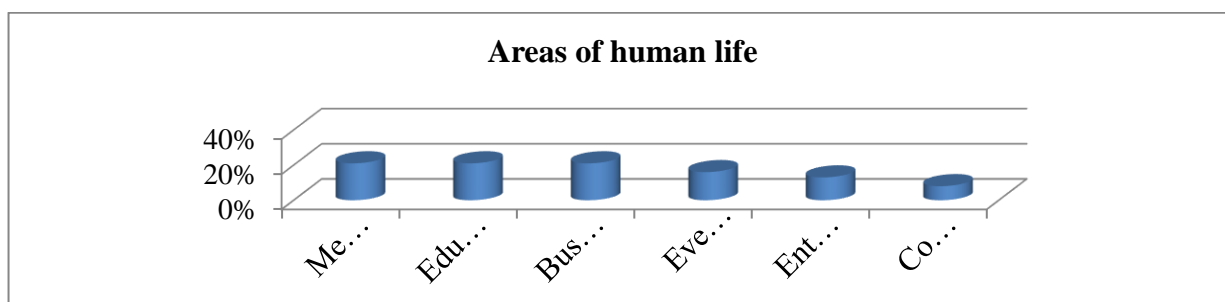


Figure 1. Answers to the second question, %

Figure 1 indicates the following:

- The importance of AI in the field of Medicine, Education, and Business is reflected by a very high level of value (21 %).

Answers about Medicine concern updating records, reviewing test results, handling drug refills, checking EKG (electrocardiogram) recordings of the heart, screening chest X-rays for many diseases, reading mammograms to look for early signs of breast cancer, checking moles for signs of skin cancer, screening for COVID-19 by the sound of the cough, giving real-time info about health to the doctors and about homebound people to caregivers, etc.

The responses related to the area of Education reflect a high level of understanding of AI's role in this sphere nowadays. Participants described digital voice assistants, online meetings, Google search, and different apps for studying. AI drives efficiency, personalization, and streamlines admin tasks to allow teachers the time and freedom to provide understanding and adaptability. Students mentioned tutoring via AI chatbots, personalized learning programs adapted to each student's ability and goals, 24/7 access to learning from anywhere, and time-management benefits.

The responses concerned with Business reflect product recommendations and purchase predictions, fraud detection and prevention for online transactions, dynamic price optimization, ad targeting and optimized, real-time bidding, customer segmentation, social semantics, sentiment analysis, voice-to-text features, automated responders, online customer support, sales, business forecasting, and predictive customer service, etc.

- The responses related to AI in everyday life formed 16 %, and in entertaining – 13 % of all answers. Participants wrote about heating/cooling preferences, intelligent refrigerators, navigation apps, 3D photography, facial recognition, online banking, autonomous vehicles, **etc.** The majority of responses to artificial intelligence in media, shows, videos, sports, and games regarded by interviewees as concerned entertaining area.

- The level of AI importance in the communication area reflects a low level of agreement; the mean value is 4 %.

3. Does AI have a positive or negative effect on your life?

Answers to the third question indicate 99 % getting an idea about the positive effect of AI and 1 % about the negative impact of AI. It has been suggested according to the following:

- **Respondents** use Artificial intelligence with a wide range of applications in our daily lives: from intelligent devices, music, media streaming services, and banking to education, and healthcare. They are ubiquitous and simplify the vast majority of our daily lives.

- A small number of responses concerned with a negative effect reflect fears about AI because systems can never be wholly understood and can fail in unpredictable ways.

4. How do you rate AI in language learning (%)?

Responses to this question covered five areas of using AI in language learning, Figure 2.

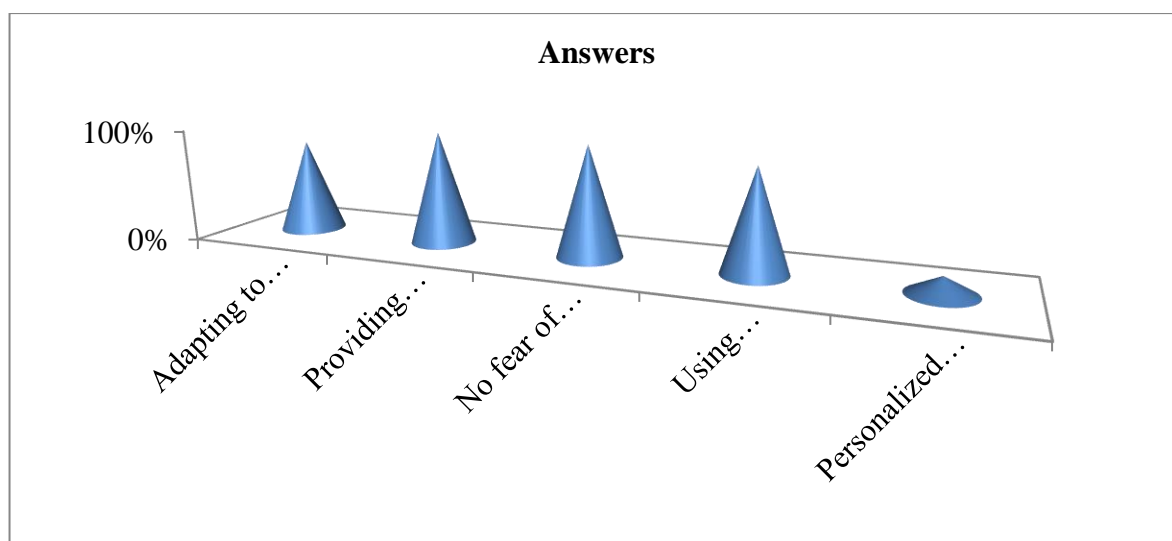


Figure 2. Answers to the fourth question, %

Figure 2 indicates the following:

- Based on the responses, AI provides instant feedback 100 %. Students wrote about the results, and the mistakes they made, pointing out mistakes and proposed ways to avoid them in the future. Participants make while learning; adaptive educational systems shape their learning path through appointed learning materials.

- Responses show a very high level (83-100%) of understanding AI in language learning, especially in foreign languages. In most cases, students wrote about applying AI-powered language learning software (MyEnglishLab platform and app by Pearson).

- A small number of answers refer to Personalized textbooks (15 %). However, it is one of the most precious merits of AI concerning Education to adapt to the expectations of each learner, such as personality, talent, objectives, and background.

5. What are you afraid of AI in language learning?

The objective of the question was to determine the respondents' attitude to the emergence and development of AI in language learning, focusing on the negative implications entailed by its effect.

The results revealed the following:

- Most of the respondents believe that cyber-attacks are to happen to their personalized accounts in the future. It is the risk of losing personal information, Figure 3.

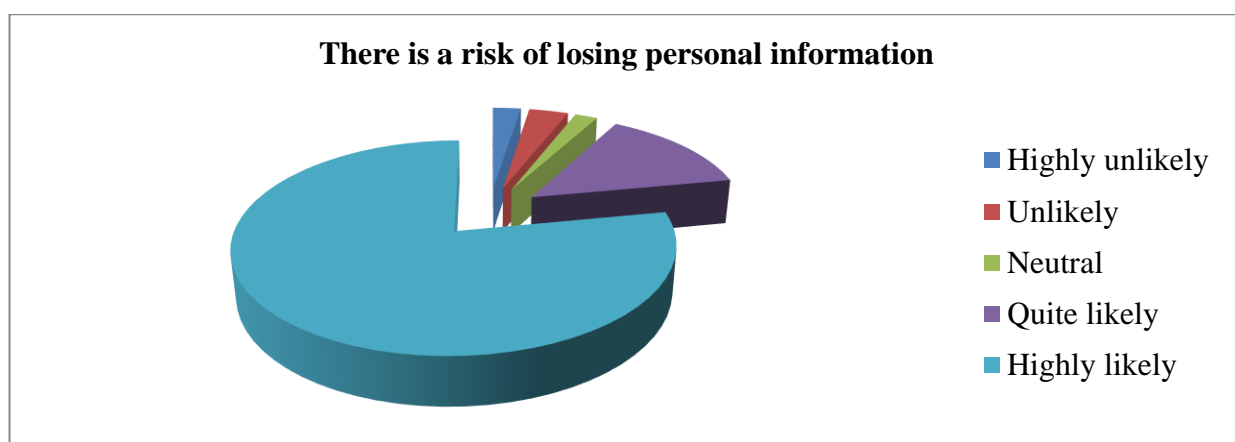


Figure 3. Risk of losing personal information, %

- Responses concerned humanity being destroyed by AI intelligence in language learning. It is followed by those who think this is likely to happen in the future – 22 % of total responses; who think neutrally on this issue – 51 %; who believe that it is unlikely to happen – 27 %.

- Based on the responses, with AI, humans can talk to machines akin to when they speak to a human. But learners are afraid of assessment by AI in 92 % because of their pronunciation, accent, way of speaking, and emotions.

- Responses show a very high level (98%) of lack of creativity using AI in language learning. The problem is that learners work with close tasks, and many apps are based on outdated concepts because they are easy to model. There is a lack of space for learners' spontaneity.

Discussion

It has been found that students were more positive in learning English with AI. It is true when students selected to learn the language with MyEnglishLab (an online component designed by Pearson) were more confident in their speaking, grammar, and vocabulary. It seems indirect, but reading and writing can also be strengthened.

The quality of Education ultimately depends on the quality of the learning content. Creating new content requires the wisdom of human content designers and educational experts. To date, AIs have not shown the capability of creating learning content independently. However, they still

have plenty to offer in content production by automating mundane jobs and helping humans in tasks where human input is necessary. Specifically, the role of AI should be to take away repetitive tasks that can be automated and assist humans by providing feedback extracted from data during the process of content production in a human-in-the-loop manner (Maghsudi, 2021, p. 6).

Students fear of losing an unnatural environment with native speakers of the language and an unnatural learning environment in institutions with no language speakers. Learning and teaching a foreign language in an artificial learning environment often arises. But there are real emotions of people. With AI, the need for real people will not disappear; it will only exacerbate the feeling of fear about unreal life.

Three different scenarios stand out in foreign languages within the framework of technological developments. The first of these scenarios is that there is no longer a need to learn a foreign language because communication in a foreign language will take place with technological devices, human influence will remain in the background. A device will instantly transfer conversations between people from one language to another. The second scenario suggests that foreign language learning is needed, but the learning method is different. Foreign language will not be taught in educational institutions with a proper understanding, and it will be learned informally, just like native language acquisition. The last scenario is about learning a foreign language both formally and informally. The second reminds of the understanding of de-schooling foreign language learning, which is the subject of this study. Those who learn through autonomous learning will understand the foreign language they want to learn online without needing for a school. Undoubtedly, this type of learning method requires learners to have some competencies. Learners should have a developed sense of responsibility, self-control, questioning, interpreting, testing their learning, making decisions, implementation, and self-orientation. Because they no longer have the the planning, timing, and evaluation system, they find them ready at school. Learners themselves must create all of these systems. It can be easily observed that these skills are not yet developed in foreign language students nowadays (Bozavli, 2021).

Conclusion

AI significantly improves the quality of language learning by adapting to the individual features (talent and background) and expectations (aims and objectives) of each student. Online language learning is of the utmost value under abnormal circumstances such as the COVID-19 outbreak. There is a necessity for future research about AI in language learning: conflicting objectives; assessment and evaluation; incentives and motivation; building learning networks; diversity, and fairness.

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References

- Al-Gayyar, G. A. N. M. (2013). Employing Artificial Intelligence for building educational websites is a prelude to the development of electronic university learning. *Future of Arabic Education: The Arab Center for Education and Development*, 20 (82), 501–510.
- Barnes-Hawkins, C. (2016). English language learners' perspectives of the communicative language approach. Available at <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=3623&context=dissertations&httpsredir=1&referer=>.
- Bozavlı, E. (2021). Is Foreign Language Teaching Possible Without School? Distance Learning Experiences of Foreign Language Students at Ataturk University During the Covid-19 Pandemic. *Arab World English Journal*, 12, 3–18. <https://doi.org/10.24093/awej/vol12no1.1>
- Britannica: Dictionary. Available at <https://www.britannica.com>.
- Borge, N. (2016). White paper – Artificial Intelligence to Improve Education/Learning Challenges. *International Journal of Advanced Engineering & Innovative Technology*, 2 (6), 10–13. <https://doi.org/10.32595/iirjet.org/v2i2.2016.29>
- Cambridge dictionary. Available at <https://dictionary.cambridge.org>.
- Dickson, B. (2017). How Artificial Intelligence is Shaping the Future of Education. *PC Magazine*, 105–115. Retrieved from <https://www.pcmag.com/news/how-artificial-intelligence-is-shaping-the-future-of-education>.
- Kamuka, E. E. D. I. (2015). Artificial Intelligence in programmed Education. *The Arab Institution for Scientific Counsel and Development of Human Resources*, 49(1), 84–96.
- Maghsudi, S., Andrew Lan, A., Jie Xu, J. & Schaar, M. (2021). Personalized Education in the AI Era: What to Expect Next? Retrieved from <https://researchin.net/archives/pdf/Personalized-Education-In-The-Ai-Era-What-To-Expect-Next-1923819>.

- Marr, B. (2018). The Key Definitions Of Artificial Intelligence (AI) That Explain Its Importance. Available at <https://bernardmarr.com/the-key-definitions-of-artificial-intelligence-ai-that-explain-its-importance/>.
- McCarthy, J., Minsky, M., Rochester, N. & Shanno, C. (2006). A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence. *AI Magazine*, 27 (4), 12–14.
- Merriam-Webster: Dictionary. Available at <https://www.merriam-webster.com/dictionary/artificial%20intelligence>.
- Muhammad, N. S. E. (2014). *Motivation applications in artificial intelligence*. Unpublished M. A. thesis. Al-Neelain University, Khartoum.
- Radwan, Z. M. (2017). *Artificial Intelligence and its impact on development*. ASBAR Council. Retrieved from <http://multaqaasbar.com/index.php>.

An Analytical Investigation of Flipped Classroom to Improve Saudi EFL Learners' Speaking Skills: a Case Study at Applied College

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Abstract

The flipped classroom strategy in the Saudi educational system is changing how we gather information, research, and share data with others. New technology tools are transforming the educational community and how instructors transmit information to students. With this new tool, the flipped classroom technology method is being used on a bigger scale at most academic levels, particularly in Saudi Arabia. This study investigated the flipped classroom method (FCM), i.e., hybrid-flexible and hyflex models based on tri-model teaching approaches, to enhance the speaking skills of EFL students at Applied College for Girls, King Khalid University, at college level, and identify students' opinions and responses towards the strategies used by the instructors. This research answered the following questions significantly: (i) What are EFL students' opinions about their English speaking skills? (ii) To what extent does mixing FCM affect EFL students' speaking skills? (iii) what are the EFL students' opinions about integrating FCM into speaking lessons? A quasi-method was adopted to collect the control (N = 32) and the focused (N = 24) groups' data. Two sets of opinion and satisfactory questionnaires were sent to the students to gain their opinions on learning the speaking skill, including the teacher's observation to perceive the methodology and the instruments used to assess speaking during the study. Finally, a focused group interview was conducted to ascertain the students' satisfaction and homogeneous proficiency level in fulfilling the aims of adopting the flipped classroom approach. After one semester (13 weeks) of intervention, the outcomes revealed the significant overview that the students appreciated and found the FCM adequate in being more fluent, confident, and competent in their production classes. The findings might provide other valuable information for researchers involved in EFL advanced pedagogy to explore the operative speaking teaching method and module.

Keywords: Flipped Classroom Method, hybrid flexible, podcast and vodcast, Traditional Classroom Method, tri model, EFL learners, speaking skills

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Introduction

Because of the onset of virtual classrooms, blended learning has taken educational procedures to another level over the last two years (Khalil et al., 2020; Mishra, Gupta, and Shree, 2020). This emerging learning style incorporates technology into the classroom to enhance the student's learning experience (Roy, 2019). A Flipped Classroom Method (FCM) is a blended learning framework representing a structure for learning both in and outside the lecture hall via new technology (Goedhart, Westrhenen, Moser, 2019). The pandemic nurtured the FCM as the youngest (Khodaei et al., 2022) and most modern Tri-model pedagogy in which instructors and learners have become roomers and zoomers through the hyflex and hybrid-flexible eLearning approaches (Panopto, 2021). Moreover, hybrid learning combines complementary face-to-face (synchronous) and online learning (asynchronous) experiences in the service of intended learning objectives. In a hybrid course, all students are expected to complete the same combination of online and in-person activities. Students learn the content delivered at home while working on the content in the face-to-face classrooms. The flip makes class meetings and materials easy to find so that students can access them online or in person, during or after class sessions. Learning outcomes are based on direct instruction, active/collaborative learning, self-directed learning, and assessment for formative learning.

Since speaking is a productive skill in English, a learner produces creative and critical expressions in defense of identical information. The speaking skill is also the most challenging and complex of all the four skills, as it requires expertise in and exposure to the target language. It has been assumed for a long time that EFL learners do not know about a part of vocabulary, pragmatic and metalinguistic, semantic, syntactic, complex grammatical concepts, and lexical fossilisation (Wang & Fan, 2020; Larsen, 1991). So, in general, poor speaking skills among EFL learners and Saudi EFL learners are caused by different things (Soomro & Farooq, 2018).

EFL adult learners could comprehend the contents of the chapters in English (Leki & Carson, 1997) but could not respond to the questions in English with their critical and creative expressions in the face-to-face classes (Gilakjani, 2011). Therefore, speaking skills have long been associated with anxiety (Hanifa, 2018; Horwitz et al., 1986), a lack of selecting suitable words and colloquial phrases, confusion using grammar, and minor and broken expression of thoughts among EFL students (Abdullah et al., 2021). The COVID-19 pandemic has pushed pedagogy and enhancement approaches into the new normal of eLearning in the form of flipped classrooms (Harwood et al., 2017). The FCM has recently proven to be a boon and a blessing for educational figures. Vereş and Muntean (2021) and Yusuf and Taiye (2021) mentioned that students could listen to podcasts, vodcasts, and audios in their flipped classroom properly during synchronous and asynchronous space-time. In the face-to-face classes, they could also answer questions in English (Lodge et al., 2018).

These speaking problems have been addressed by sorting out the deficiencies in instructor development and instructor education, learners' autonomy, lack of materials and technology in the EFL classes, and anxiety in learning a foreign language (Kashmiri, 2020). In addition, the major one was that there was minimal opportunity to learn English through natural interaction in the target language (Rabab'ah, 2003). Previous studies conducted in the Arab World, such as by Hamad (2013), Al-Seghayer (2014), Mahboob and Elyas (2014), Alrabai (2014), Alrashidi, and

Phan (2015), revealed that most Arab students were not inspired and motivated. They also did not have the basic language skills that would have made it easy for them to talk in class.

Speaking skills require many genuine drills and reflective practices during the erudition process. Many approaches, methods, and techniques were introduced to improve learners' active engagement and self-regulated speaking. However, the major problem for most English teachers was that there were fewer contact hours, and there was not enough time to deliver all the content and facilitate students' classroom activities (Hamden et al., 2013). During the pandemic, the FCM developed an innovative learning process and a feasible solution that offered a new pedagogical tendency in the field of EFL teaching (Öztürk & Çakıroğlu, 2021).

The FCM instructional strategy has received much attention recently. The notion was that rather than using time for an instructor to introduce a concept (often via lecture), the instructor created a video lecture, screencast, or vodcast/podcast that teaches students the concepts, freeing up valuable class time for more engaging and collaborative activities. Instructors could provide direct support to students in real-time while working on material previously completed at home. Instructors could devote more time to expanding students' understanding and spending more one-on-one time with students during class. The instructor guided and facilitated the students (Milman, 2012).

In FCM, traditional classroom-based learning is reversed. Here, EFL learners have familiarized themselves with the learning material beforehand, and the actual classroom time was used to develop understanding through discussion with peers and problem-solving activities assisted by the instructor (Chou, 2020; Butt, 2014). This new approach affords a heightened opportunity for learners to engage with real-world concerns and independent investigation strategies. Here, direct teaching instructions switched the group to the individual learning space. The group space was turned into a dynamic, communicative learning space where the teacher told the students to connect ideas and think of new ways to learn about the subject (Nouri, 2016).

Speaking English is the most teasing issue for Saudis due to the Arabic medium of teaching and learning (translation method) at school and even college level, where the teaching of textbooks is just a word-for-word translation of the curriculum contents and topics. Apart from that, neither the instructors nor the Saudi learners speak English in the classroom. Hence, it resulted in the learners' inability to speak English fluently. But as EFL students go through school, they face many problems that make it harder for them to improve their speaking skills.

A flipped class is a changing mode of blended teaching where the students receive the content before the class. In contrast, the practice of the topic and content is done in the classroom at college. In this way, it is the opposite of the traditional method where students are introduced to the new topic at home, and actual classroom time is fully utilized to solve and discuss the students' problems. In this way, students can work and practice independently. Over the last decade, instructors and learners have increasingly used and analyzed flipped classrooms. Some studies, however, have been done formally to evaluate how well flipped classrooms work and how well they help EFL students improve their English oral presentation, let alone study the factors that affect how well they learn from flipped classrooms.

EFL instructors need to consider the potential of flipped teaching as it spreads across educational disciplines. This attempt synthesizes an example of flipped teaching that demonstrates the benefits of flipped classrooms in improving EFL students' speaking skills, exemplifying how flipped learning provides opportunities for increased academic success in the Saudi EFL learners' context. It is recommended that a spoken class be flipped by transitioning students from passive to active learning and focusing on the role of instructors in facilitating students' involvement with speaking. During the pandemic online classes, learners were also pleased with the flipped classroom method and the model benefits and challenges of flipped learning in EFL teaching and learning, using this example of how it can take shape in a cross-cultural communication course and their critical thinking awareness and EFL speaking anxiety.

This study looked at how concept mapping-based flipped learning, which is a way to learn by listening and talking, affects learning achievement. Therefore, EFL learners face several challenges that negatively impact their attempts to achieve English proficiency. This study was a case study at the Applied College for Girls at King Khalid University. It looked at how the flipped classroom could help Saudi EFL students improve their speaking skills.

Speaking is one of the fundamentals of communication. EFL contexts call for special attention and instruction to be learned. Unfortunately, most EFL students were not confident about speaking English in class and publicly before people. They learned English, but they did not understand how to use it. Most learners thought that their instructors didn't encourage them and didn't teach them the right way to improve their speaking.

On the one hand, EFL students were worried about making mistakes in speaking; on the other hand, they felt shy and faced a lack of self-confidence. The comfort zone of using the mother tongue in talking was also a barrier faced by EFL learners. Like other non-native speakers, these Saudi English students had trouble developing their speaking skills, which made it hard for them to communicate when they needed to. Therefore, the study sought to analyze how new teaching and learning approaches could have been beneficial in enhancing students' speaking skills.

This research effort has attempted to explore the advantages of instructing through a flipped-classroom approach to boost the speaking skills of EFL learners at level 2 in the Applied College for Girls. Therefore, this research work attempted to answer the following questions-

1. What are EFL students' opinions about their English speaking skills?
2. To what extent does mixing FCM affect EFL students' speaking skills?
3. What are the EFL students' opinions about integrating FCM in speaking lessons?

Literature review

21st-century researchers search for learners who are adjustable, creative, self-motivated, and willing to try new things. Therefore, emergent research suggests moving away from traditional teaching-centered approaches towards more student-centered methods to enhance such skills. Because of this, flipped learning is a method of teaching that lets students use problem-based and inquiry-based methods (Butt, 2014).

Looking back, many types of research have proved the Flipped Classroom approach to pedagogy has a positive effect on learners' learning outcomes (Çakıroğlu & Öztürk, 2017; Liu et al., 2019). According to Sergis et al. (2018), there was little doubt that FCM contributed positively to students' cognitive learning outcomes, motivation, and engagement in the information and communication courses. Furthermore, more recent studies on FCM have found favorable improvements in academic achievement, motivation, attitude, metacognition, satisfaction, self-regulated learning, and self-efficacy, drawing attention to variables researched in FCM (Al-Samarraie et al., 2020). With online/blended learning enhancement, the flipped classroom model (FCM) has increased in popularity as an innovative learning practice to support and learn English skills. As Cab (2018) mentioned, in the new normal situation where the actual face-to-face contact hours were at a minimum, the FCM reversed traditional teaching and reorganized the contact time to utilize class time for learners to learn.

Researchers have proved that FCM offers students opportunities to study with rich course content at their own pace, facilitating a flexible learning environment with technology support (Shih, & Huang, 2020). In addition, students prepare for the lesson with the materials out of class; they freely use and perform hands-on activities in the in-class sessions (Bergmann & Sams, 2012). In the FCM, students could participate in online discussions during out-of-class sessions while learning about course content by watching videos (Hosseini et al., 2020; Leatherman & Cleveland, 2020). In this period, learning management systems, YouTube, blogs, and wikis were used to understand the given content. Educators also offer specialized online learning platforms (Wanner & Palmer, 2015). In the in-class sessions, students could practice what they have learned at out-of-class sessions through collaborative group work, problem-solving, discussing, and working on projects (Huang & Hong, 2016) with instructors' feedback and guidance.

Various studies by Li & Suwanthep, 2017; Lin & Hwang, 2018; Zainuddin et al., 2019 explained the positive output of the application of FCM and its incorporation in enhancing learners' speaking or oral competence, English language higher-order thinking skills, and self-efficacy skills. Furthermore, Lee and Wallace (2018) and Abdullah et al. (2019) discovered that the FCM model allowed learners asynchronously more time to revise, practice, and investigate more English wherever they were. A study done in Taiwan (Lin & Hwang, 2018) found that a Facebook-based online community-based flipped classroom had a big impact on how well university students did in their oral presentations.

In traditional learning, a lower level of knowledge, such as remembering and understanding, occurs first in class. In comparison, the learners are usually left to work on activities that involve a higher level of learning outside of the classroom. However, in the FCM, learning is flipped. Learners finish the lower level of cognitive work before class at their own pace. Furthermore, when they come to class, they are involved in higher cognitive levels of learning with peers and teachers (Nazara, 2019).

Methods

This section presents the study's methodology and describes the participants, the instruments, and the procedure. This research has implemented a case study approach to examine EFL students' perceptions of the advantages of using flipped classes and the main problems they

faced while adopting them. It shows the analysis of the Five-Likert scale based on two sets of opinions and satisfaction questionnaires. At the beginning of the semester (week 2), the students were sent a set of opinion questionnaires to find out what they thought about learning speaking skills. At the end of the semester (week 12), they were sent a set of satisfactory questionnaires to find out what they thought about the flipped model of learning to improve their speaking skills, as well as the instructors' observations of the methods and tools used to test speaking during the study.

Participants

The researchers applied the flipped learning class at the tertiary level in Applied College for Girls at King Khalid University in the first semester (13 weeks) from September to December 2021 at the college in order to measure the differences between the students' achievement in the traditional and the flipped classes. The researchers randomly chose one of two preparatory year student groups. Both groups consist of 56 students. The flipped learning was implemented in group (1), which consisted of 32 students; all were female, and their ages ranged from 16 to 19.

Instruments

The researchers used two different methods to achieve the aim of the study. First, this research has implemented a case study approach to examine EFL students' perceptions of the advantages of using flipped classes and the main problems they faced while adopting them. It provided an insight into assessing the effects of the flipped classroom approach for improving EFL students' speaking skills at the university level. Therefore, a pre, during, and post-experimental research design was utilized to examine the impact of FCM on speaking skills and its domains. A quasi-method was adopted to collect the data. The qualitative method included the teacher's observation to perceive the approach and the instruments used to assess speaking during the speaking classes in the first semester.

Furthermore, instructors' observations were an effective data collection strategy for using the pedagogy and presentation to produce the classes in the middle of the first semester, which helped to enquire about a set of issues. In addition, 15 students' semi-structured interviews were conducted to identify the satisfaction level of the students in fulfilling the aim of adopting flipped classes. Two groups at level 2 were selected for research purposes: the focused group (N = 34) for the flipped model of instructions; the control group (N = 24) for the traditional mode of instructions; and the experimental group (N = 32) for the online mode of instructions. Since this study focused on one particular context of using the flipped model of learning speaking skills, without the students' views, the study would have been undone. For the qualitative process, the second mode of data collection was the continuous observation of the study group and control group's classes during the semester.

The procedure of the study

This study was conducted at the same college. The population was the PYP students at level-2, and the researchers selected one group to implement the study and to compare their performance and presentation in flipped and traditional pedagogical approaches with the second one. The prescribed curriculum contents of the textbook were delivered accordingly throughout the first semester at the same college. By the end of last week, the data was ready to be analyzed. By this time, the observation of the two speaking skills course instructors was conducted to

evaluate analytically the beneficial issues. Moreover, the goals of the study and the achievements of the course were taken into consideration during the design of the tasks and the activities of all 13 weeks' instructional plan.

Data collection process

The current study implemented two research instruments to answer the research questions. The first tool for quantitative data collection, two sets of questionnaires (Appendix A and D), is based on the Likert scale. 32 students responded from both groups to the opinion questionnaire, and 24 students shared their answers to the satisfaction questionnaire. In the study, a group of English as a Foreign Language (EFL) students was used as a sample to show and confirm how flipped classes help improve speaking skills.

For qualitative data collection, researchers contacted focus group EFL students via email to be interviewed online in the study. It was emphasised that their contribution was voluntary. The questions were introduced in both Arabic and English to get more reliable answers from the students. Students could freely share their ideas, picking up any language wherever they felt comfortable.

Most of the students expressed their opinions in Arabic, and later, their opinions were transcribed into English. The focus group interview included three types of questions. Question No. 1 was the ice-breaking question to be answered by anyone. The first category asked about the advantages of the integration of flipped classes in teaching speaking skills, and the second category asked about the problems they have faced during the FCM along with the valuable suggestions of the students. Lastly, concluding comments were used to thank participants and reiterate the confidentiality of their responses. During the online focus group interview session, the purpose of the study was explained, and the necessity of providing honest views to support the expansion of the study's trustworthiness was highlighted. The focus group interviews took place in two shifts and lasted between an hour and two hours.

Findings

What are EFL students' opinions about their English speaking skills?

A 19-item Likert scale questionnaire was used here, with responses ranging from "strongly agree" to "strongly disagree." It was divided into three sections: EFL learners' problems, perceptions, and preferences for learning speaking skills. The following analysis is carried out using SPSS, depending on the first research question. This quantitative analysis aims to generate descriptive and statistical findings to throw light on the students' viewpoints (Aithal & Aithal, 2020). In addition, SPSS has been used to measure the reliability of questions.

Reliability

As shown in the table, the range of the alpha scale for all items in all the sections is above 0.6, which indicates average reliability. In this way, the reliability of the constructs varies from 76% to 61%, which is well above the required value, i.e., 0.60 (Cronbach, 1951). Therefore, the results of the opinion questionnaire are reliable.

Table 1. reliability statistics of the opinion questionnaire-

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.763	7
.616	.619	6
.673	.670	6

This section summarizes the findings of the students' opinion questionnaire (appendix A). Here, primary products related to students' problems, perceptions, and preferences regarding speaking skills are analyzed, with frequency and percentages mentioned.

Table 2. I am usually afraid of making mistakes while speaking

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	6.5	25.0	25.0
	Agree	7	5.7	21.9	46.9
	Neutral	10	8.1	31.3	78.1
	Disagree	5	4.1	15.6	93.8
	Strongly disagree	2	1.6	6.3	100.0
	Total	32	26.0	100.0	
Missing	System	91	74.0	-	-
	Total	123	100.0	-	-

Responding to the first statement, as shown in table 2, 46.9% of students are afraid of making mistakes while speaking English. The frequency of neutral students who are unsure of their speaking skills is high. Out of 32 students, only seven disagreed with this fact. Responding to another question, 40.6% of students strongly agreed and agreed that they have problems expressing themselves fluently in English, while another 25% were neutral in responding to this statement. The high frequency of the ratio shows that most EFL non-native speakers at the college in IEP are not fluent in English.

Table 3. I don't have enough vocabulary knowledge for speaking

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	7.3	28.1	28.1
	Agree	8	6.5	25.0	53.1
	Neutral	6	4.9	18.8	71.9
	Disagree	8	6.5	25.0	96.9
	Strongly disagree	1	.8	3.1	100.0
	Total	32	26.0	100.0	-
Missing	System	91	74.0	-	-
	Total	123	100.0	-	-

Table three shows that more than 53% of students who responded to this statement strongly agreed that they do not have enough vocabulary to speak. ESL students need enough vocabulary to convey formal and informal communication noticeably and succinctly. While responding to another statement, 43.8% strongly agreed and agreed that speaking is generally neglected among the four skills in the classroom. 28% are neutral about this statement. It is a productive skill but not given as much attention in academic settings as reading and writing (Sharma, 2015). While responding to one statement, it was found that pronunciation was not a difficulty for the students. 37.6% of the students disagreed with this statement. However, 43.8% agreed that they needed more chances to participate in class discussion activities.

Table 4. speaking is generally neglected among four skills in classroom

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	4.1	15.6	15.6
	Agree	9	7.3	28.1	43.8
	Neutral	9	7.3	28.1	71.9
	Disagree	7	5.7	21.9	93.8
	Strongly disagree	2	1.6	6.3	100.0
	Total	32	26.0	100.0	-
Missing	System	91	74.0	-	-
	Total	123	100.0	-	-

According to table four, 43.8 percent strongly agreed that speaking is the most undervalued of the four skills in the classroom, while 28 percent disagreed. It demonstrates that a greater emphasis should be placed on honing speaking skills. Concerning another question, the mean found is 2.97, indicating insufficient efficient facilities in the language laboratory for practicing speaking. This statement was agreed upon by 34.4 percent of students and disagreed upon by 31.3 percent.

Table 5. I think learning speaking skill is fun

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	6.5	25.0	25.0
	Agree	12	9.8	37.5	62.5
	Neutral	5	4.1	15.6	78.1
	Disagree	7	5.7	21.9	100.0
	Total	32	26.0	100.0	-
Missing	System	91	74.0	-	-
	Total	123	100.0	-	-

Table five shows that 62.5 percent of students agree that learning to speak is fun. It shows that learners expressed an interest in speaking but wanted to learn in a fun environment. Similarly, 46.9% of students strongly disagree that learning how to speak in class is uninteresting. This statement received a 21% neutral response.

Table 6. I feel shy when speaking English

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	6.5	25.0	25.0
	Agree	2	1.6	6.3	31.3
	Neutral	10	8.1	31.3	62.5
	Disagree	7	5.7	21.9	84.4
	Strongly disagree	5	4.1	15.6	100.0
	Total	32	26.0	100.0	-
Missing	System	91	74.0	-	-
	Total	123	100.0	-	-

According to table six, around 31.3% of students agreed to feel shy when speaking English. While responding to another question, 43.8% strongly agreed that they do not care much when making mistakes while speaking English. On the other hand, 53.1% strongly agreed that speaking could be practiced outside the classroom for improvement. They can improve their speaking if they

converse well with their friends. A good population, 59.4%, strongly agreed to be a native-like speaker, whereas 18.8% were neutral. Overall, about 60% of students wished to be native-like speakers.

Table 7. online sources help me get additional practice to enhance my speaking

Processes	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	7.3	28.1	28.1
	Agree	9	7.3	28.1	56.3
	Neutral	10	8.1	31.3	87.5
	Disagree	3	2.4	9.4	96.9
	Strongly disagree	1	.8	3.1	100.0
	Total	32	26.0	100.0	-
Missing	System	91	74.0	-	-
	Total	123	100.0	-	-

As presented in the above table, 56.3% of students strongly agreed that online sources helped them get additional practice to enhance their speaking. In addition, 40.6% need more intensive use of English (flipped or blended) to enhance their speaking. Furthermore, 43.8% of students strongly agreed that they need more appropriate opportunities (flipped) to improve speaking in speaking class. Finally, the students strongly agree that speaking should be taught separately, not integrated with other skills such as reading and writing.

What extent does the mixing of FCM affect EFL students' speaking skills?

Along with quantitative research, the study used a qualitative case study approach. The instructors' observation form and the students' interview questionnaire (appendices B and C) collect data. During the intervention, the results of the qualitative analysis would be used to build a theory that would explain how individual, contextual, and instructor-related factors, approaches, and strategies affected how speaking skills were learned using the FCM. The illustration below is from the second research question.

Teachers' observation in speaking classes

Frequently scheduled observation of both groups was done to investigate the real-world efficacy of the flipped classroom while the classes were in session during the study. The statement revealed how the integration of FCM in speaking lessons affected the participants. The primary purpose was to observe the methodology and the instruments used to facilitate speaking during the classes. Also, based on the questionnaire (appendix B), two different EFL teachers were observed as they taught speaking skills to both focused and controlled groups.

In the flipped classroom, the EFL instructor always uses the questioning and answering technique to cater to the interests of the speaking class, whereas in the traditional classroom, it is done sometimes or rarely. The questioning and answering process was based on online conversation audio, videos, and picture descriptions. Since EFL students had access to these online materials, the focused EFL teacher usually got the students to talk in pairs or small groups.

The controlled group EFL instructor often focused on the activities primarily available in the book, while the focused group EFL instructor designed suitable activities based on the previously given content via BB or online tools. For example, though the time spent developing the speaking activities was almost the same, the content was referred to via BB or available in the prescribed course textbook, *Unlock-2: Listening, Speaking & Critical Thinking*. Nonetheless, the FCM could practice various speaking activities compared to the traditional classroom.

In addition, observing the EFL instructors, it was noticed that students were always allowed to participate in the FCM classes, whereas in traditional classes, participation was rarely found. As a result, most students got opportunities in FCM, while only a few got involved in TCM. The instructor could see the accomplishment of the tasks and activities since the FCM content was made available through BB. Moreover, the instructor could assign grades and comments to the students during and after the class. The statements were mainly positive, whereas, in TCM, the researcher could not find such a system of comments and grades.

The FCM was observed implementing a student-centered approach while the TCM mainly followed the teacher-centered approach. For example, in the flipped way, the students usually listened to the audio, watched videos, took notes to get an idea about the class topic, and participated in thriving in-class activities. On the other hand, when students used the traditional method, they did not know much about the topic that was talked about in class.

Students' interview responses

Frequently scheduled observation of both groups was done to investigate the real-world efficacy of the flipped classroom while the classes were in session during the study. The statement revealed how the integration of FCM in speaking lessons affected the participants. The primary purpose was to observe the methodology and the instruments used to facilitate speaking during the classes. Also, based on the questionnaire (appendix B), two different EFL teachers were watched as they taught speaking skills to both focused and controlled groups.

A semi-structured interview was conducted as part of the second data collection instrument, in which 15 students from the focused group voluntarily participated. The interview was conducted online based on the abovementioned information and via email. During their investigation, twelve questions were posed to assess the effectiveness of using flipped classes, notably in terms of research. The discussion was enthralling and lasted more than an hour. To elicit more detailed replies from the students, the questions were translated into Arabic so the participants could comprehend them. The researchers discussed many questions that formed essential components of their research. Most participants were positive about using the FCM to acquire speaking abilities. Students benefit in various ways. All the interviewees agreed that if students follow all the tools and online materials sincerely and honestly, the flipped classroom method works remarkably.

Efficacy and effectiveness of using FCM in enhancing speaking skills

The flipped classes have positioned themselves supreme over f2f classes, especially in learning speaking skills. Since the topics and related content are given before the classes, flipped content helps the students prepare for them and get a general idea about them. In addition, some students found it helpful to overcome their shyness about speaking up in front of their instructor

and other students in the class. The following are a few statements transcribed from the students' interviews:

Student A: FCM helped us too much to prepare and avoid mistakes in our answers before the speaking class, and FCM helped us do different assignments even if we made mistakes, but it encouraged us so much.

Student B: I think FCM helped us with speaking when the instructor sent us any tasks; it made us able to hear them at our own pace, correcting the mistakes. In addition, we could search for the problematic synonyms of the words, and we had time to fix many things before the class.

Student C: FCM helped me so much in communication with the instructor as well as with other students. It made the learning flexible, and I could speak freely without fear.

Student D: I think FCM is very useful and reflects well on my mood. I can answer using different sources and ask my family about anything that I want to know.

Student E: From my point of view, this kind of learning comes through if essential time has to be devoted to collaborative work for communication. It is advantageous, especially in collaborative work. We can repeat the video many times.

Student F: In general, it prepared us for the F2F class. Can I understand the content better to get a general idea about the topic of the lecture? We can listen to it several times at our convenience. It also lowers the anxiety level. Moreover, I overcame my shyness, and I think FCM developed my speaking by 40%.

FCM offered access to different online resources

The FCM method relies primarily on online resources to supply students with materials. However, students could benefit entirely from the information both synchronously and asynchronously. Blackboard, the university's LMS platform, delivered such content and materials. In their interview, the students discussed various resources that helped them. As students responded:

Student A: We benefited from different online channels. E.g., I can search for any topic on my mobile using YouTube. I can search for the knowledge on different websites and then decide which is helpful for me.

Student B: I can upload all the modules. Moreover, I can listen to and repeat vocabulary as much as I can, so I can speak confidently. Finally, I can use different resources to use later to improve my speaking.

Student C: Online resources are 90% useful and helped me with vocabulary learning. For example, when the teacher sends me audio electronically, I start writing unfamiliar words in my notes to understand and memorize them later.

Some students agreed that if the audio or video content was sent to them prior to class, they could get help from some English or Arabic instructors or their family members to help them with any problematic issues they might experience. Moreover, they could use any online tools, e.g., YouTube, Google translation, an online/offline dictionary, and many more available sources, to overcome any difficulties.

FCM to be self-directed learner

Findings using audio and video-enabled instructional approaches, flipped classrooms have begun to redesign classrooms and encourage active learning. Students' responses explored flipped

classrooms and the advantages students obtained from the abundance of online content available on the LMS. The flipped classroom model has transformed the learning paradigm, giving students control over their learning speed and becoming familiar with the assets of learning materials that promote effective learning. This research can increase students' self-directed learning, and it proposes that it be used in future EFL classrooms to enhance speaking skills-

Student A: Using translation simultaneously, I have become a more independent learner.

Student B: In online learning, in the context of flipped classes, we search for the knowledge ourselves in different sources. We trained ourselves a lot and did not depend on the instructor as the only source of knowledge.

Student C: When searching for knowledge, I will not forget the information I hear.

Problems faced by students at FCM in enhancing speaking skills

Every stock has two aspects. On the one hand, FCM proved positively beneficial and advantageous. On the other hand, it did not suit some students. They preferred the f2f classes over the flipped classrooms, especially for speaking skills. Some students shared their problems while using the FCM during the current semester-

Student A: I can understand it more in f2f. Additionally, some students did not listen to the submitted tasks from the teachers. As a result, some did not commit to this kind of learning.

Student B: I think it helped us, but not more than 50%.

Student C: In general, it is not suitable for me. I like f2f more. I prefer communication in real-time situations.

Suggestions concerning using FCM in enhancing speaking skills

The interview ended with the students' suggestions. The following were a few suggestions conveyed by students:

Student A: I think topics have to be related or unrelated to the books. However, some topics might help us in daily life, e.g., related to our career, especially how we can adapt to university without choosing our required major.

Student B: The instructor should send us some motivational clips prior to lessons—they may be educational, songs, video clips, etc.

In this way, this qualitative (exploratory) part can be perceived as the phase to determine the students' familiarity with the efficacy and effectiveness of the FCM in learning speaking skills.

What are the EFL students' opinions about integrating FCM into speaking lessons?

The focused group students answered the satisfaction questionnaire willingly in reply to the third study question. The questionnaire has 15 items on a Five-Likert scale ranging from "always" to "never." It is confirmed in the section below utilizing a quantitative analysis of the study (satisfactory). The quantitative portion of the study could be utilized to extrapolate qualitative findings (Lobe, 2008). The qualitative approaches are used to answer how effective the FCM is at teaching speaking skills. As Patton (1990: 132) suggests, "Descriptive analysis can put flesh on the bones of research findings, bringing findings to life in case analysis."

Reliability of satisfaction questionnaire scale: all variables

The reliability of the questionnaire is evaluated using Cronbach's alpha based on standardized items. The range of the alpha scale in the table for all the sections is above 0.6, indicating average reliability. In this way, the reliability of the constructs varies from 76% to 61%, which is well above the required value, i.e., 0.60 (Cronbach, 1951). So the satisfaction results of this study are reliable.

Table 8. *Reliability Statistics of Satisfaction Questionnaire-*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.793	0.781	15

This section presents the outcomes from the descriptive statistical analysis of the Students' Satisfaction Questionnaire. In addition, primary products related to students' satisfaction with speaking skills are analyzed here.

Table 9. *did you use to watch the videos before coming to the flipped classroom*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	1	4.2	4.2	4.2
	Sometimes	9	37.5	37.5	41.7
	Very often	4	16.7	16.7	58.3
	Always	10	41.7	41.7	100.0
	Total	24	100.0	100.0	-

Answering the first statement, 41.7% of the students always watched video lectures before coming to the classes. Only 4.2 percent responded negatively. The histogram showed the normal distribution of the curve. The mean is 3.96%.

Table 10. *did you use to listen the audios before coming to the flipped classroom*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	1	4.2	4.2	4.2
	Sometimes	6	25.0	25.0	29.2
	Very often	4	16.7	16.7	45.8
	Always	13	54.2	54.2	100.0
	Total	24	100.0	100.0	-

Responding to this statement, 54.2% of students always listened to the audio before coming to class. Only 4.2% did not listen to the audio, which is very small. The histogram shows the high frequency of the statements.

Table 11. *was assessing the online speaking course tools and materials easily approachable to you*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	1	4.2	4.2	4.2
	Sometimes	4	16.7	16.7	20.8
	Very often	3	12.5	12.5	33.3
	Always	16	66.7	66.7	100.0
	Total	24	100.0	100.0	-

In the above table, 66.5% of students replied that online course tools and materials were easily approachable. However, the frequency is only one who replied negatively. While 41.7% (always)

and 33.3% (very often) of students replied that the video lectures were appropriate and optimal for managing speaking activities, 54.2% of students also found the video lectures entertaining and productive. Only 8.3% replied negatively, saying they rarely found it entertaining and productive.

Table 12. *did you use to review the text and videos again just before coming to the classes*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	2	8.3	8.3	8.3
	Sometimes	6	25.0	25.0	33.3
	Very often	4	16.7	16.7	50.0
	Always	12	50.0	50.0	100.0
	Total	24	100.0	100.0	-

Showing their satisfaction towards FCM, half of the respondents answered that they reviewed the texts and videos again just before coming to the classes. Similarly, half of the students answered that they always spent scheduled time in FCM practicing English. At the same time, 41.7% of the students responded that due to FCM, their participation increased in speaking classes. Only 8.3% did not participate fully in FCM.

Table 13. *did you perform better academically in the flipped classroom model*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rarely	1	4.2	4.2	4.2
	Sometimes	2	8.3	8.3	12.5
	Very often	9	37.5	37.5	50.0
	Always	12	50.0	50.0	100.0
	Total	24	100.0	100.0	-

The high percentage in table 13 shows that 50% of students could do better academically. They performed well and became more confident at speaking. Some learners in the scheduled flipped classes, on the other hand, found the audio and videos boring or hard to pay attention to.

Table 14. *would you like English speaking course to be conducted in flipped classroom model*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	1	4.2	4.2	4.2
	Rarely	2	8.3	8.3	12.5
	Sometimes	6	25.0	25.0	37.5
	Very often	5	20.8	20.8	58.3
	Always	10	41.7	41.7	100.0
	Total	24	100.0	100.0	-

Table 14 shows that 41% of the students liked this three-way way to learn how to speak and wanted the listening and speaking classes to be taught in a flipped way.

Table 15. *did you observe any positive changes in your attitude towards in the flipped classroom model experience*

Process	Nature	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	8.3	8.3	8.3
	Rarely	1	4.2	4.2	12.5
	Sometimes	2	8.3	8.3	20.8
	Very often	6	25.0	25.0	45.8

	Always	13	54.2	54.2	100.0
	Total	24	100.0	100.0	-

The table above revealed a large population of 54.2% who confirmed positive changes in their attitude toward their FCM experience. It led to positive changes in their perceptions due to the circumstances caused by the COVID pandemic. They would be able to practice using the tri-model of learning in this situation if there were fewer contact hours available for the teaching and learning process.

Discussion

According to Yılmaz (2017), the study's findings show that students in EFL settings perceive they cannot speak English fluently and confidently. Moreover, EFL students feared making mistakes when speaking or communicating with others. A lack of vocabulary was one of the reasons for this. As a result, their capacity to communicate fluently was hampered. Therefore, there was an utter need for speaking skills to be focused on more in classrooms, and more facilities should be given to EFL students. Even students were more interested in learning to speak, provided they got a fun environment instead of a boring one. A large percentage of the population had a positive attitude toward being a native-like speaker. They accepted that speaking could be practiced with a friend outside the classroom and could be done more often. Also, online sources could help them get more speaking practice, and they need to use English more often (flipped or blended) to improve their speaking.

A well-designed flipped course requires significant preparation and execution, but it immensely enriches both students and instructors. Bloom's Taxonomy could then be used to create practical online and in-class elements that enhance student outcomes. For example, learners in a flipped classroom got more time to connect with others and their instructor and interact in subgroups.

The observation and student interviews revealed a greater degree of importance of the flipped method of pedagogy and demonstrated the great significance of the mixing of FCM in enhancing students' speaking skills. Also, the FCM was more focused on the students than the TCM, and it got a lot of attention for giving students information about their courses ahead of time, mostly through online learning management systems.

Students' interviews indicated that they had benefited in a variety of ways. They agreed that if all the tools and online material were used wisely and nicely, FCM could be revealed to be speaking skills-oriented. The students could also listen to the audio files at their own pace while understanding the other materials. This caterer gave them the confidence to speak fearlessly, frankly, and flawlessly. FCM increased the flexibility and feasibility of learning through collaborative scaffolding activities among students.

Because of easy access to various online sources, learners overcame barriers in vocabulary, pronunciation, and phonetics. On the one hand, these autonomous activities positioned them as self-directed learners, but on the other hand, the approach was unsuitable for some of them. It demonstrated that such students are spoon-feeders who require constant instructor facilitation. Furthermore, it showed the students' lack of attention to the supplies, contents, and materials. By

the end of the course, EFL students had shared their ideas for making the FCM more productive and effective. It would be more exciting and impressive if the learning could be related to absolute, life-like, and career-oriented themes. For a long time, putting in motivational clips, songs, and video clips could help students learn better than for a long time.

The quantitative analysis revealed a high level of satisfaction among the students. The FCM motivated the students to prepare before the class by watching the video and listening to the audio. The learning instruction given prior to classes proved very beneficial to most students. However, intrinsic motivation becomes an issue here. The students willing to learn speaking took more interest in flipped material and became more regular and repetitive in such learning activities. Accessible and approachable online tools and appropriate and optimal materials effectively manage speaking activities. Even though the content that was flipped was fun and helpful, students said they wanted more fun.

Foldnes (2017) found that flipped content enhanced the class attendance and participation of the students, but only those whose high academic levels seemed more influenced and intermingled. Since a few students had obstacles in getting and understanding it, they did not find it satisfactory because of their cognition level of the items' content, speed, vocabulary, and semantics. However, many students did better academically and could concentrate more in flipped classes than in traditional ones. The focused group learners desired the English-speaking courses to be conducted in FCM. The students found that their hesitation and reluctance to speak English had changed for the better.

Students' responses suggested that FCM would be more fun, entertaining, and inspiring to be communicative when speaking another language. The findings might provide other valuable information for researchers involved in EFL advanced pedagogy to explore the operative speaking teaching method and module. More FCM speaking skills pedagogy and improvement will be needed to give EFL learners more chances to improve their listening and speaking skills through the use of advanced new technologies and carefully planned courses.

Conclusion

Learning English as a foreign language is a significant issue for Saudi students, resulting in an inability to speak English. The primary goal of this research is to discover a more adaptable, hybrid, and EFL student-friendly approach to overcoming the challenge and becoming confident and comfortable speaking effectively. As a result, the researchers concluded that the mixed form of flipped learning improves students' attitudes and perspectives, making them more confident. According to the results, both the synchronous and asynchronous modes of material delivery were beneficial. Students might use their free time at home to study more about the topic, seek assistance from internet resources, and enhance their vocabulary. This would increase their general speaking abilities. In addition, students might be able to go over their spoken lectures with the teacher to manage their own learning better. This research effort, framed within constructivist pedagogy, synthesized the FCM pedagogy that undoubtedly validated the constructive role-plays of flipping the classroom in developing EFL learners' speaking skills. In the study, instructors applied and used the tri-model, which led students to become more engaged in the learning process. It has often been noticed that EFL learners do not practice speaking English in the traditional classroom or

speak English hesitantly. Such pedagogy and enhancement pushed it toward poor English speaking proficiency. To overcome such challenges, the flipped classroom model provided the perfect solution and platform to safeguard L2's ability to get proper practice for inside and outside speaking through visualizing TED, podcasts, and vodcast videos and audios and working on a set vocabulary and grammar structure used at home synchronously and asynchronously, which peers and instructors were observing. At the same time, there were many challenges for students and instructors. Following that, instructors played an essential role in student discussions about various reasons and topics. When students had information gaps and a lack of brainstorming while speaking, instructors helped them fill in the gaps with left information and pushed them toward content and abstract words to create sound brainstorms. Researchers interested in advanced EFL pedagogy could use the results to look into the operative speaking teaching method and module.

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References

- Abdullah, M. Y. & Hussin, S., Ismail, K. (2019). Implementation of Flipped Classroom Model and Its Effectiveness on English Speaking Performance. *International Journal of Emerging Technologies in Learning (IJET)*, 14(09), 130–147. DOI: <https://doi.org/10.3991/ijet.v14i09.10348>
- Abdullah, M. Y., Hussin, S., Ismail, K. (2021). Does Flipped Classroom Model Affect EFL Learners' Anxiety in English Speaking Performance. *International Journal of Emerging Technologies in Learning (IJET)*, 16(01), 94–108. DOI: <https://doi.org/10.3991/ijet.v16i01.16955>
- Alrabai, F. (2014). A model of foreign language anxiety in the Saudi EFL context. *English Language Teaching*, 7(7), 82-101. DOI: <http://dx.doi.org/10.5539/elt.v7n7p82>
- Alrashidi, O., & Phan, H. (2015). Education Context and English Teaching and Learning in the Kingdom of Saudi Arabia: An Overview. *English Language Teaching*, 8(5), 33-44. Canadian Center of Science and Education.
- Al-Samarraie, H., Shamsuddin, A., & Alzahrani, A. I. (2020). A flipped classroom model in higher education: a review of the evidence across disciplines. *Educational Technology Research and Development*, 68(3), 1017–1051. DOI: <https://doi.org/10.1007/s11423-019-09718-8>
- Al-Seghayer, K. (2014). The Four Most Common Constraints Affecting English Teaching in Saudi Arabia. *International Journal of English Linguistics*, 4(5), 17-26.
- Bergmann, J., & Sams, A. (2012). Flip Your Classroom: Reach Every Student in Every Class Every Day (pp. 120-190). *Washington DC: International Society for Technology in Education*.
- Butt, A. (2014). Student views on the use of a flipped classroom approach: evidence from Australia. *Business Education & Accreditation*, 6(1), 33–43.
- Cabı, E. (2018). The Impact of the Flipped Classroom Model on Students' Academic Achievement. *The International Review of Research in Open and Distributed Learning*, 19(3), 203-221. DOI: <https://doi.org/10.19173/irrodl.v19i3.3482>
- Çakiroglu, Ü. & Öztürk, M. (2017). Flipped Classroom with Problem Based Activities: Exploring Self-regulated Learning in a Programming Language Course. *Educational Technology & Society*, 20(1), 337-349.
- Chou, I. (2020). Implementing the Flipped Approach in an English-Medium-Instruction Educational Psychology Course: Student Learning Outcome and Perception. *International Journal of Education and Literacy Studies*, 8(4), 1-12. DOI: <http://dx.doi.org/10.7575/aiac.ijels.v.8n.4p.1>.
- Foldnes, N. (2017). The impact of class attendance on student learning in a flipped classroom. *Nordic Journal of Digital Literacy*, 12(1-02), 8-18. DOI: <https://doi.org/10.18261/issn.1891-943x-2017-01-02-02>
- Gilakjani, A. P. (2011). A Study on the Situation of Pronunciation Instruction in ESL/EFL Classrooms. *Journal of Studies in Education*, 1(1) E4, 1-15. DOI: <https://doi.org/10.5296/jse.v1i1.924>
- Goedhart, N. S., Westrhenen, N. B., Moser, C., Zweekhorst, M. B. M. (2019). The flipped classroom: supporting a diverse group of students in their learning. *Learning*

- Environments Research*, 22, 297–310. DOI: <https://doi.org/10.1007/s10984-019-09281-2>
- Hamad, M. (2013). Factors Negatively Affect Speaking Skills at Saudi Colleges for Girls in the South. Canadian Center of Science and Education. *English Language Teaching*, 6(12), 87-97.
- Hamden, N., McKnight, P.E., McKnight, K., & Arfstrom, K. (2013). A review of flipped learning. Flipped Learning Network. Upper Saddle River, NJ: Pearson Education. Retrieved from <http://www.flippedlearning.org/cms/lib07/VA01923112/Centricity/Domain/41/LitReviewFlippedLearning.Pdf>
- Hanifa, R. (2018). Factors generating anxiety when learning EFL speaking skills. *Studies in English Language and Education*, 5(2), 230-239. DOI: <https://doi.org/10.24815/siele.v5i2.10932>
- Harwood, C., & Mann, A. (2017). A Constructivist Approach to Teaching Media Studies Using Google Drive. *Journal of Interactive Technology and Pedagogy*, 11, 1-18.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign Language Classroom Anxiety. *The Modern Language Journal*, 70(2), 125–132. DOI: <https://doi.org/10.1111/j.1540-4781.1986.tb05256.x>
- Hosseini, H. M., Ejtehadi, A., Hosseini, M. M. (2020). Flipping Microlearning-based EFL Classroom to Enhance Learners' Self-Regulation. *Language Teaching Research Quarterly*, 20, 43–59. DOI: <https://doi.org/10.32038/ltrq.2020.20.03>
- Huang, Y. N. & Hong, Z. R. (2016). The effects of a flipped English classroom intervention on students' information and communication technology and English reading comprehension. *Educational Technology Research and Development*, 64, 175–193. DOI: <https://doi.org/10.1007/s11423-015-9412-7>
- Kashmiri, H.A. (2021). Communication Challenges: Saudi EFL Speaking Skills and Strategies to Overcome Speaking Difficulties. *Arab World English Journal* (December 2020) Theses ID 267 Pp. 1- 61. DOI: <https://dx.doi.org/10.24093/awej/th.267>
- Khalil, R., et al. (2020). The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: a qualitative study exploring medical students' perspectives. *BMC Medical Education*, 20. DOI: <https://doi.org/10.1186/s12909-020-02208-z>
- Khodaei, S., et al. (2022). The effect of the online flipped classroom on self-directed learning readiness and metacognitive awareness in nursing students during the COVID-19 pandemic. *BMC Nursing*, 21(22). DOI: <https://doi.org/10.1186/s12912-022-00804-6>
- Larsen-Freeman, D. (1991). Second Language Acquisition Research: Staking out the Territory. *TESOL Quarterly*, 25(2), 315–350. DOI: <https://doi.org/10.2307/3587466>
- Leki, I., & Carson, J. (1997). “Completely Different Worlds”: EAP and the Writing Experiences of ESL Students in University Courses. *TESOL Quarterly*, 31(1), 39–69. DOI: <https://doi.org/10.2307/3587974>
- Li, S., & Suwanthep, J. (2017). Integration of flipped classroom model for EFL speaking. *International Journal of Learning and Teaching*, 3(2), 118-123.
- Lin, C.-J., & Hwang, G.-J. (2018). A Learning Analytics Approach to Investigating Factors Affecting EFL Students' Oral Performance in a Flipped Classroom. *Journal of*

- Educational Technology & Society*, 21(2), 205–219. Retrieved from-
<http://www.jstor.org/stable/26388398>
- Leatherman, J. L., & Cleveland, L. M. (2020). Student exam performance in flipped classroom sections is similar to that in active learning sections, and satisfaction with the flipped classroom hinges on attitudes toward learning from videos. *Journal of Biological Education*, 54(3), 328–344. DOI: <https://doi.org/10.1080/00219266.2019.1575266>
- Lee, G. & Wallace, A. (2017). Flipped Learning in the English as a Foreign Language Classroom: Outcomes and Perceptions. *Tesol Quarterly*, 52 (1), 62-84. DOI: <https://doi.org/10.1002/tesq.372>
- Liu, C., Sands-Meyer, S. & Audran, J. (2019). The effectiveness of the student response system (SRS) in English grammar learning in a flipped English as a foreign language (EFL) class. *Interactive Learning Environments*, 27(8), 1178-1191. DOI: <https://doi.org/10.1080/10494820.2018.1528283>
- Lobe, B. (2008). Integration of online research methods. Information Technology/Social Informatics collection. *Ljubljana, Slovenia: Faculty of Social Sciences Press*.
- Lodge, J. M., Kennedy, G., Lockyer L., Arguel, A. & Pachman, M. (2018). Understanding Difficulties and Resulting Confusion in Learning: An Integrative Review. *Frontiers Education*, 3 (49), 1-10. DOI: <https://doi.org/10.3389/educ.2018.00049>
- Mahboob, A., & Elyas, T. (2014). English in the Kingdom of Saudi Arabia. *World Englishes*, 33(1), 128-142. DOI: <https://doi.org/10.1111/weng.12073>
- Milman, B.N. (2012). The flipped classroom strategy: What is it and how can it best be used? *Greenwich*, 9(3), 85-87.
- Mishra, L., Gupta, T., Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1. DOI: <https://doi.org/10.1016/j.ijedro.2020.100012>
- Nazara, S. (2019). The Flipped Classroom Use in EFL Learning and Teaching. In: PROCEEDING English Education Department Collegiate Forum (EED CF) 2015-2018. *UKI Press, Indonesia, Jakarta*, 265-281. ISBN 978 623 7256 250
- Nouri, J. (2016). The flipped classroom: for active, effective and increased learning – especially for low achievers. *International Journal of Educational Technology in Higher Education*, 13 (33). DOI: <https://doi.org/10.1186/s41239-016-0032-z>
- Öztürk, M. & Çakıroğlu, U. (2021). Flipped learning design in EFL classrooms: implementing self-regulated learning strategies to develop language skills. *Smart Learning Environments*, 8(2). DOI: <https://doi.org/10.1186/s40561-021-00146-x>
- Rabab'ah, G. (2003). Communication Problems Facing Arab Learners of English. *Journal of Language and Learning*, 3(1), 180-197.
- Roy, A. (2019). Technology in Teaching and Learning. *International Journal for Innovation Education and Research*, 7(4), 414–422. DOI: <https://doi.org/10.31686/ijer.vol7.iss4.1433>
- Santhanasamy, C., & Yunus, M. M. (2022). A systematic review of flipped learning approach in improving speaking skills. *European Journal of Educational Research*, 11(1), 127-139. DOI: <https://doi.org/10.12973/eu-jer.11.1.127>
- Sergis, S., Sampson, D. G. & Pelliccione, L. (2018). Investigating the impact of Flipped Classroom on students' learning experiences: A Self-Determination Theory approach.

- Computers in Human Behavior*, 78, 368-378. DOI: <https://doi.org/10.1016/j.chb.2017.08.011>
- Sharma, V. K. (2015). How do Productive Skills of Saudi Students Affect EFL Learning and Teaching. *Asian Journal of Humanities and Social Sciences*, 3 (2), 91-99.
- Sheerah, H. A. H., Yadav, M. S., Allah, M. A.E.F., & Abdin, G. J. (2022). Exploring Teachers and Students' Perceptions towards Emergency Online Learning Intensive English Writing Course during COVID-19 Pandemic. *Arab World English Journal (AWEJ) 2nd Special Issue on Covid 19 Challenges* (2) 64-84. DOI: <https://dx.doi.org/10.24093/awej/covid2.5>
- Shih, H. J. & Huang, S. C. (2020). College students' metacognitive strategy use in an EFL flipped classroom. *Computer Assisted Language Learning*, 33(7), 755-784. DOI: <https://doi.org/10.1080/09588221.2019.1590420>
- Soomro, A. F. & Farooq, M. (2018). EFL Learners' Attitude towards Developing Speaking Skills at the University of Taif, Saudi Arabia. *International Journal of English Linguistics Archives*, 8 (3), 318-327. Published by Canadian Center of Science and Education. DOI: <http://doi.org/10.5539/ijel.v8n3p318>
- Vereş, S. & Muntean, A.-D. (2021). The Flipped Classroom as an Instructional Model. *Romanian Review of Geographical Education*, 10(1), 56-67. DOI: 10.24193/RRGE120214
- Wang, X. & Fan, L. (2020). An Analysis of Interlanguage Features and English Learning. *Journal of Higher Education Research*, 1(1), 31-37. DOI: <https://doi.org/10.32629/jher.v1i1.126>
- Wanner, T. & Palmer, E. (2015). Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers & Education*, 88, 354-369. DOI: <https://doi.org/10.1016/j.compedu.2015.07.008>
- Yadav, M. K., & Yadav, M. S. (2021). A Theoretical Overview on the Impacts and Strategies of Morphology in English Language Teaching to the L2 Learners. *International Journal of Research*, 8(3), 311-331.
- Yadav, M. K. (2014). Role of Mother Tongue in Second Language Learning. *International Journal of Research*, 1(11), 572-582.
- Yadav, M. S. (2021). Role of Social Media in English Language Learning to the Adult Learners. *International Journal of Linguistics, Literature and Translation*, 4(1), 238-247. DOI: <https://doi.org/10.32996/ijllt.2021.4.1.25>
- Yılmaz, M. B. (2017). The Relation between Academic Procrastination of University Students and Their Assignment and Exam Performances: The Situation in Distance and Face-to-Face Learning Environments. *Journal of education and training studies*, 5, 146-157.
- Yusuf, B., & Taiye, M. A. (2021). A Flipped Learning Environment: A Disruptive Approach for Traditional Classrooms? *International Journal of Education, Psychology and Counseling*, 6 (42), 83-98. DOI: 10.35631/IJEPC.642008
- Zainuddin, Z., & Perera, C, J. (2018). Supporting students' self-directed learning in the flipped classroom through the LMS TES Blend Space. *On the Horizon*, 26(4), 281-290. DOI: <https://doi.org/10.1108/OTH-04-2017-0016>

Appendices

Appendix A: Students' Opinion Questionnaire

Form 1: Students' Opinion Questionnaire (Based on Likert Scale)

EFL Students' Problem Oriented Questions (from 1 to 7)

1. I am usually afraid of making mistakes while speaking.
2. I have problems expressing myself fluently in English.
3. I do not have enough vocabulary knowledge for speaking.
4. My pronunciation is not good enough which causes difficulty in speaking.
5. I cannot find the chance to express my ideas and participate in class discussion activities.
6. Speaking is generally neglected among four skills in classrooms.
7. There are not enough and efficient facilities in the language laboratory for practicing speaking.

EFL Students' Perception Related Questions (from 8 to 13)

8. I think learning speaking is fun.
9. I think learning speaking in class is boring.
10. I feel shy when speaking English.
11. I do not care much when I make mistakes while speaking.
11. Speaking can be practiced outside the class for improvement.
12. I like to have a conversation with friends to improve my speaking.

EFL Students' Preference Related Questions (from 14 to 19)

13. My goal is to endeavor for being a native-like speaker.
14. I like speaking lessons, and my teacher is a model for speaking in the class.
15. Online sources help me get additional practice to enhance my speaking.
17. Speaking should be taught separately, not integrated with other skills such as reading and writing.
16. More intensive use of English (flipped/blended) is required in Speaking class.
17. I need more appropriate opportunities (flipped/blended) to improve speaking in Speaking class.

Appendix B: Teachers' Observation Form

Date of session: _____

Schedule: _____

Subject: _____

Purpose: To observe the methodology and the instruments used to access speaking during the English Intensive Program classes at Level 2. (Focused and Control group)-

1. Teacher uses the questioning and answering technique to cater interest in the speaking class.
 Always Usually Often Sometimes Rarely Almost never
2. Conversations and picture description is used to initiate the speaking class.
 Always Usually Often Sometimes Rarely Almost never
3. Teacher persuades pairs or group discussion in the class.
 Always Usually Often Sometimes Rarely Almost never
4. Teacher designs good activities to develop speaking during the class.
 Always Usually Often Sometimes Rarely Almost never
5. Activities used by teacher during the class to develop speaking and time used to develop them:

<u>Activity</u>	<u>Time</u>
_____	_____
_____	_____
_____	_____

6. There is a variety of activities used to develop speaking during class.

Always Usually Often Sometimes Rarely Almost never

7. Number of activities used in a class to develop speaking?

8. Students are given the opportunity of participating in some way during the class.

Always Usually Often Sometimes Rarely Almost never

9. Number of students who are given the opportunity of participating during the class.

All students Most students Some students Very few students

10. Teacher takes notes or assigns any type of grades to students' participation.

Always Usually Often Sometimes Rarely Almost never

11. Teacher provides comments during /after student's participation in class.

Always Usually Often Sometimes Rarely Almost never

12. If there are comments made to students' participation, they are:

Mostly positive Both positive and negative Mostly negative

13. Topics used in speaking activities are related to real-life situations and contexts.

Always Usually Often Sometimes Rarely Almost never

14. Teacher uses learners-centered approach for the speaking class.

Always Usually Often Sometimes Rarely Almost never

15. Teacher gives enough time to various speaking exercises in the class.

Always Usually Often Sometimes Rarely Almost never

16. Students listen to the records/audios on the radio or video on BB and takes help back to the class.

Always Usually Often Sometimes Rarely Almost never

Appendix C: Student's Interview Questionnaire

(Flipped Classroom method in special reference of Speaking Skills)

1. What do you think about the integration of flipped classroom method (FCM) to learning speaking skills?

Section A- Advantages of Flipped Classes

2. In your opinion, did flipped classroom method offer you the opportunity to review the speaking lectures as many times as you need to.
3. Did flipped classroom method offer you access to the online course tools and materials related to speaking skills? Examples.
4. To what extent did the flipped classroom help you to improve your learning speaking skills?
5. Did you learn to be a self-directed learner with the mixing of flipped classroom methods and approaches?
6. How did the flipped classroom help you to cooperate with your classmates effectively?
7. How did the flipped classroom help you to participate in the learning speaking strategies effectively?
8. What are the techniques used by the teacher that enables you to manage your learning activities?
9. Do you think the flipped classroom is a very enjoyable approach to learn speaking skills? Give examples?
10. Do you prefer the flipped classroom over the traditional classroom to learn speaking skills? If yes, why?

Section B: Difficulties during Flipped Classes

11. Did you face any complications or difficulties during the integration of flipped method to the

speaking classes? If yes, what was that?

Section C: Suggestions for Flipped Classes

12. How can flipped classroom method be more beneficial to improve the speaking skills of the students? What are your suggestions that you would like to add here?

Appendix D: Students' Questionnaire

EFL students' Satisfaction Questionnaire (Always, Very often, Sometimes, Rarely, Never)

1. Did you use to watch the video lectures before coming to the flipped classroom?
 2. Did you use to listen the audios before coming to the flipped classroom?
 3. Was accessing the online speaking course tools and materials easy approachable for you?
 4. Did you find the lengths of the video lectures appropriate and optimal to manage speaking activities?
 5. Were the video lectures given to you before the flipped classes entertaining and productive?
 6. Did you use to review the texts and videos again just before coming to the flipped classes?
 7. Did you use to spend scheduled time in flipped classes for practicing the speaking skill?
 8. Did your participation increase in the classes due to the flipped classroom method?
 9. Were the texts and videos entertaining and motivational in the flipped classes?
 10. Did you meet with any difficulties understanding the texts and videos related to speaking skills during the flipped classes?
 11. Did you find yourself bored or unfocused in audios and videos in the scheduled flipped classes?
 12. Did you perform better academically in the flipped classroom model?
 13. Did the flipped classroom model help you concentrate more when compared to the traditional model?
 14. Would you like English speaking courses to be conducted in flipped classroom model?
 15. Did you observe any positive changes in your attitude towards the flipped classroom model experience?
-

Online Language Assessment the Exception, Not the Rule: For Inclusive Language Learning

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Abstract

The study investigates teachers' perceptions of the use of online language assessment (OLA) using technology and examines the scope of using online applications to validate the mode of assessment. It looks for EFL teachers' opinions of OLA to comprehend the many worries associated with the issues and improve the online assessment tools. The researchers included the teachers who taught and assessed their students online using the Blackboard application at Jazan University, Saudi Arabia. The study was descriptive, using an online survey for data collection. Participants were from different colleges and nationalities teaching English to students enrolled in the preparatory course. Descriptive analysis of the open-ended questionnaire and interview data illustrated the salient features of the online assessment were instant feedback, randomized question order, statistical description of the exam, and immediate scores on exam completion. Teachers reported the effectiveness of the online assessment system but with some remedial actions to further improve the online assessment systems. Also, quality prospects, in pandemic-like situations, should not be thought of as offline teaching and challenges in various domains like language assessment security, time limitation, internet accessibility, ethical aspects, digital literacy and expertise, technological failures, and learning outcomes. Finally, the article offers a roadmap for planning, developing, implementing, evaluating, and carrying on research in online language assessment in new and in crisis contexts.

Keywords: Computer-aided assessment, computer-assisted language learning, language skills, motivation, online assessment, online tests

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Introduction

Every person passes through some examination at any point in time in life. Alike, the students attend their reviews to achieve tangible performance improvement. Besides, it also helps teachers get and introspect their plan of action if it worked out well to achieve the desired learning outcomes, or needs some modification. Therefore, it involves both teachers and students where teachers evaluate their teaching methods, strategies, approaches, and students know how far they have learned the topic or subject. But over time, academia is witnessing tremendous growth and development in technology that has pros and cons when executed in teaching and learning. These technological advancements also contributed immensely to teaching and learning, which has assisted academia since the pandemic affected us and brought in a paradigm shift to adopt a technology-based system of examinations.

Furthermore, it also reduces space among students, teachers, and administrators, and they all can exchange their ideas from anywhere across the world. The use of technology in academia has been the focus of many research projects since the previous decade of the last century, but it has gained momentum in this century. Alike, numerous studies underscored the pros and cons of technology-mediated instruction in the teaching-learning milieu. However, little has been researched and available to date on teachers' views of technology-based language assessment, mainly based on more complex interactions offered during pandemics. Since some of the researchers had concerns about the prevalence of computer anxiety among students; therefore, the use of technology for language assessment still has been open to question.

The study is based on the experience of online assessment teachers teaching on a virtual platform using online tools called Blackboard and WhatsApp, a primarily used social media application. Emphasizing the online assessment, Bodmann and Robinson (2004) stated that technology-based assessment offers opportunities to measure a complex form of knowledge and reasoning, which is impossible to engage and assess through offline methods. Sharma (2019) opines that learners are updated with the latest technologies, and the best can be seen in students' move with social media to complement and supplement classroom language instructions. Its usage facilitates learners easy to access it at any time and at any place. WhatsApp usage keeps interaction alive to exchange ideas instantly and easily with the teacher and allows students to share their concerns, issues, assignments, and essays. Many studies found that its uses bring up both teachers and students on the same platform, facilitating effective academic communication resulting in timely and positively obtaining intended learning outcomes. Teachers and students can share study materials, announcements, assignments, worksheets, instructions, evaluation reports, and academic-related issues without constrictions of time or location. In terms of Online Language Assessment (hereafter, will be written as OLA), we find this term appearing in many forms, like Online Assessment, Web-Based assessment, Computer-based Testing (CBT), Computer-Aided Assessment (CAA), Computer Assisted Testing (CAT), E-Assessment and to name a few. Conole and Warburton (2005) described that computer-assisted testing items test particular ability levels since they usually deliver more accurate and reliable results than traditional tests.

The salient feature that was observed in online learning is the new form of academic discourse, peer and collaborative work, and students' participation that builds trust, care, and confidence, keeping students motivated and engaged when there were reported cases of anxiety,

frustration, loneliness, and depression in students due to pandemic crisis. Luppicini (2007) reviewed several studies and found the main emphasis on online courses and networks, learning processes, course and program evaluations, group dynamics, peer evaluations, group decision-making, problem-solving, writing, individual decision-making, argumentation, teaching practice effects, technology integration, teacher styles and characteristics, socio-cultural factors, and professional development effects. Mixed findings were found for the impacts of computer-mediated instructions, but hardly any study dealt with teachers' perceptions of OLA.

The world witnessed one of its worst times due to the Covid pandemic last year that impacted every nook and corner of society, and education is no exception. All educational institutions' doors were shut entirely, and learning moved to virtual online mode. Multiple problems occurred during the process, and one of the grave challenges language teachers encountered was the language testing and assessment. The prevailing situation inspired various practical, creative, and innovative methods to simplify language assessment procedures and solve limitations imposed by the pandemic. This article dealt with teachers' perceptions of using OLA methods on *Blackboard*. The findings present a few challenges and opportunities language teachers struggled with during this unprecedented time, supported by the latest developments in the domain. The assessment and testing method created by working teachers was put to use in the tertiary education contexts. The process is dynamic and evolving to tackle some critical issues by modifying the assessments according to the volatile situations provoked by the pandemic. The language assessment contexts described herein range from regional to international standards level tests.

The present study explores a new area of technology-mediated language assessment using the *Blackboard* application. The users are students and teachers at Jazan University, Saudi Arabia, who use *Blackboard* Learn application for online teaching, learning, and knowledge sharing. The University facilitates its teachers and students to use this for teaching online courses because Blackboard Learn is open, flexible, and centered on student achievement. The study aims to examine the perceptions of teachers received online from different colleges and nationalities, and analyze their content. The findings of the present study will help teachers, course and program coordinators, and administrators understand students' academic and future needs, areas that need to be taken into consideration in OLA, assessment and teaching methodology, online assessment training, and student counseling.

The explanation above, and unavoidable circumstances have engulfed English language assessments profoundly, making it a complex task for language teachers at all levels and education settings. Teachers undertook the daunting task of switching to online learning to mitigate student problems but struggled to develop appropriate and suitable language assessment tests for students. It is aimed at the existing students to know how much they learned in terms of learning outcomes and for new students who seek admissions in various streams, programs, and colleges at local, regional, national, or abroad. The students, if not given these language tests, would fail to promote to the next level, and teachers would not be able to carry on with their assessments but all left in the lurch. Universities need valid language proficiency results from prospective students to ensure access to English-medium programs. Therefore, teachers were forced to develop language tests to provide students obtain reliable, legal, and effective indications of English academic proficiency.

Sharma (2018) claims that it needs motivation and consistent support for teachers and equal consideration to assist students with language support, new testing criteria, testing methods, etc., to make the pre-and-post admission process easy and stress-free. Ockey and Baghestani (2020) argue that educational institutions commonly use standardized test scores not only to determine whether a prospective student can be accepted but also to identify language support needs after a student has been accepted to a particular program of study. All these factors had a cumulative effect on language teachers to prepare for placement, diagnostic, and pre-and-post placement tests. The teachers provoked multiple similar constrictions faced by the language teachers delivering high-quality standardized placement, admission, formative, summative, and process tests.

We looked into teacher attitudes toward OLA using the following study questions to comprehend the many concerns connected to the issues listed above and to help improve the online assessment tools.

RQ1 What is your opinion on Online EFL Assessment for our students?

RQ2 Please specify the support you have received from your department before and during the online language assessment.

RQ3 What are the difficulties you have encountered during the online assessment?

RQ4 What are the most prominent features/benefits of the online assessment system?

RQ5 Do you prefer online language assessment? If YES, and if NO, why?

RQ6 What would you suggest to improve the OLA system?

Literature Review

During the pandemic, many educational institutions transitioned to an online virtual environment, which required teachers to adapt to novel instructional settings to assure students' continuous learning. However, during the teaching and learning process, language teachers face numerous difficulties due to language testing and assessment. The findings, supported by the most recent developments in the field, indicate some of the opportunities and challenges that language teachers encountered during this historical period.

Since COVID and restrictions by health experts and governments at their peak, assessments also had evolved into new or modified assessment practices using technology. Chappelle (2020) considered it a 'watershed moment' in language assessment since the pandemic had prompted test providers and seekers to seek a wide range of alternatives to conventional approaches (Plough & Raquel, 2020). The coronavirus is now mostly under control worldwide, returning academia to its new normal. The stakeholders have experienced significant relief with the return of offline classes; however, academics must continue with online learning and offline sessions to minimize future issues. A serious concern for educators is the difference in results between an online exam and a conventional evaluation. The topic at hand investigates the potential for using online apps to validate the form of assessment and seeks to understand teachers' perspectives on the usage of online language assessment using technology. Numerous research asserted a causal relationship between students' assessments and language teaching and learning using online resources and assessment systems (Daniels et al., 2019; Doculan, 2016).

Since the concept of online learning and assessment is not new to explore, a number of studies (Becker, Cummins & Freeman, 2017; Norton & Cakitaki, 2016) underscored the vitality

and relevance of digital education using online platforms, infrastructure, and approaches in educational instructions. Alike, considerable research has been conducted to show the integration of digital technology in EFL/ESL contexts (Hafner & Miller, 2011; Mompean, 2010; Ros et al., 2010). However, despite the ubiquitous use of technology, the currently accessible online management systems are still underdeveloped, and they struggle to produce assessments that align with the learning objectives of academic courses (Helfaya & O' Neil, 2019). Besides, these systems in language learning contexts bring in many barriers in practices (Hedayati & Marandi, 2014; Jahanban-Isfahan et al., 2017). Alike, the study in a Saudi EFL context during the pandemic, Abduh (2021) also looked into how teachers perceived the assessment techniques employed in full-time e-learning, which indicated that the teachers' attitudes toward e-assessment were conflicted. According to Xu and Liu (2018), the impact of assessment can be either favorable or unfavorable. It states when a well-designed test accurately measures the intended outcomes, a good effect occurs. Besides other reasons, a complex of social, psychological, political, technological, and data-driven accountability variables entrenched in evaluation and instruction have a detrimental impact on language teaching (Ali and Hamid, 2020; Furaidah et al., 2015).

Despite numerous studies, Montelongo & Eaton (2019) believed that educational strategies in teaching and learning entirely online or in hybrid form seem to be in little supply, and a few studies have taken up the challenges teachers face in OLA since several assessment procedures have been established to counter-check various challenges (Adnan, et al., 2020). Since the epidemic has highlighted numerous issues with the necessity and accessibility of language evaluation, we also consider how high-stakes online testing techniques may change over time. This work aims to fill this gap and provides a pathway for organizing, creating, putting into practice, and assessing online language testing in novel and emergency circumstances. The article highlights research methods, data gathering from teachers' responses, and discussion to arrive at some conclusions and recommendations for improving the effectiveness of online learning assessments.

Methods

The descriptive study used online surveys for data collection. In comparison to other quantitative techniques, descriptive analysis is thought to be more thorough and present a more comprehensive view of an event or phenomenon. To obtain information about the teachers' perceptions of OLA, an open-ended questionnaire was designed and developed. The responses were sought on conducting the formative and summative assessments on the blackboard. To achieve the objectives of the study, this research takes a qualitative method. It focuses on feedback on assessment for learning from teachers to improve their teaching strategies, and for students to increase their learning strategies. The language program teachers provided the information. After knowing the teachers' attitudes regarding the online assessment, all stakeholders should be able to use the study's findings as a basis for improving their teaching, learning, and evaluation processes.

Participants

Participants were seven teachers from different age groups and nationalities selected randomly teaching various language courses in the preparatory colleges of Computer science, Science, Medical, and Engineering. We used simple random sampling since such sampling ensures that the sample and population distributions are identical on all measured and unmeasured variables within the limits of sampling error (Shadish et al., 2020). All the teachers were taken

consent to respond to the research questions voluntarily, and out of seven, one teacher did not send his response. In the study, all teachers showed a strong willingness to participate in the research. The sample data comprised 57.14% male and 42.86% female participants. Thirty percent of the sample were aged up to 30 years old (young teachers), 42.72% each were between 31 and 40 years old and between 41 and 50 years old (middle-aged teachers) respectively, and 14.28% were more than 51 years old (senior teachers). All teachers were full-time employees in the academic year 2021 at English Language Institute in Jazan University, Saudi Arabia.

Research Instruments

The researchers included the teachers who taught and assessed their students online using the Blackboard application at Jazan University, Saudi Arabia. The study was descriptive, using an online survey for data collection. An open-ended online questionnaire was used to investigate the teachers' perceptions of the OLA. This questionnaire was designed to obtain information from the teachers' open-ended responses on OLA, online assessment experience, and their evaluation of specific components such as benefits, the difficulties and issues they encountered during the online assessment, and suggestions to improve the OLA system.

Reliability

The researchers took the utmost care to ensure the reliability of the questionnaire to bring unbiased and transparent findings. Five teachers randomly selected from the different college teachers were chosen for a pilot study. Accordingly, Cronbach's alpha coefficient was calculated from the results of this pilot study, and the resulting scores were at least 0.8. The questionnaire was revised and improvised based on information received from the open-ended responses. Then, Cronbach's alpha coefficient was also assessed for the actual study responses, and all scores were at least 0.8, showing that the reliability level of this research was consistently high.

Data Collection and Analysis

The evaluation survey was conducted one and a half years since the pandemic caused the closure of institutions. The questionnaire was distributed individually online and on WhatsApp to get responses from randomly selected teachers who taught and conducted OLAs for their courses. The responses were collated and given coding to describe their responses anonymously to answer the research questions through analysis and discussion.

Research Procedures

In addition to examining the potential for using online applications to validate the form of assessment, this study intends to understand how teachers perceive the use of online language assessment during COVID periods. To achieve the objectives of the study, this research takes a qualitative method and focuses on feedback from teachers who assessed their students in the last two-semester in the academic year 2020-21 to improve their teaching strategies and for students to increase their learning strategies. The information was gathered from the responses provided by the teachers of the preparatory language learning course after they were given an open-ended questionnaire. After knowing the teachers' attitudes regarding the online assessment, we anticipate that the stakeholders in academia will be able to use the study's findings as a basis for improving their teaching and learning processes.

Findings

RQ1 What is your opinion on Online EFL Assessment for our students?

The purpose of this question was to obtain the teachers' views, and knowledge on OLA administered in the university-facilitated Blackboard Learning technology-based programs since the knowledge and skills required to work with different functions of Blackboard is a prerequisite for using the technology-mediated assessment program. The responses obtained are:

T1: Assessment is a powerful tool that provides evidence of the students' learning and guides teachers to alter or improve their teaching and learning methods.

T2: We live in a digital era, and students prefer online learning. I have learned English mainly through technology, but one of the missing things back then was the assessment part, and there was no way to know and check whether what I was doing was correct or not. Nowadays, we have Learning Management Systems (LMS), which genuinely revolutionized the way learners are assessed.

T3: The online assessment is scientific, well-planned, and occurs at regular intervals. It takes into account all skills and encompasses a wholesome approach.

So, all have good opinions about OLA for students since its systematic and improves teaching and learning. However, the other teachers didn't submit their responses but disclosed that they have positive opinions about the OLA since it is the best way to assess students in critical situations.

RQ2 Please specify the support you have received from your department before and during the online language assessment.

It is always essential not only to gain knowledge but also to get help to execute any new technique or method of assessment effectively to accomplish the desired objectives. The teachers have expressed the department's support before, during, and after the assessment, which is given below.

T1: I have received immense support from my coordinator and colleagues in framing and setting the most appropriate questions to judge students' subject acquisition. The department strives to bring the best outcomes for the assessments done online.

T2: The institute equipped staff members with laptops, quiz manuals (how to prepare and deploy tests), and question pools, which facilitated teachers' jobs in online assessment.

T3: The department seeks to set up a framework of parameters for evaluating the OLA. It focuses on the executional aspect too. It has served as a reference point. All the guidelines have been issued to the teachers, and a detailed follow-up has been taken. The support is present throughout the semester.

T6: The institute provided detailed guidelines about pools and test creation. In addition, they offered assistance in finding result statistics and dealing with plagiarism cases.

T7: Pre-test and Post-test conducted by the institute help the teachers to evaluate the achievement of Course Learning Outcomes of each student. The Teaching and Learning Unit of the institute maintains the uniformity of exams by the date, type of questions, and difficulty levels.

Data analysis of the results is done at multiple stages and through various committees, and the institute gives remedial classes to weak students focusing on the areas they need to improve. Logistics like laptops, internet facilities, etc., are provided to the teachers to make the process smooth.

RQ3 What are the difficulties you have encountered during the online assessment?

No system in any discipline functions without glitches or problems when the system is put into real situations. Thus, the implementer needs training on the skills required to ensure the uninterrupted functioning of the system. These are the difficulties teachers encountered conducting the OLA.

T1: The main difficulty being encountered is the questionable truthful approach by students in attempting the online tests. This is followed by erratic internet connection in remote areas where students find it challenging to try online tests.

T2: Internet connection issues are prevalent in online teaching/learning. Students feel very overwhelmed when it comes to tests, especially those who live in remote places. They will need to go to other villages/cities only to attend the quiz without worrying about the internet.

T3: The aspect that the invigilator is not physically present for the supervision takes a lot of my attention. This ethical aspect keeps me under constant threat. Any online assessment is the build-up of human elements and a solid technical support system. It's unpredictable to control unforeseen reasons for technological failures. The student preparedness might hamper due to power failures, etc.

T5: Online assessment does not measure the exact level of the students because of the external circumstances interference, e.g., the internet speed/connection, time limitation for each question, and MCQs can be misleading sometimes (I mean by this, the nature of the question phrasing). As stated, external circumstances may affect the quality of answering and hinder the students from responding accurately or even misunderstanding the question. The backtracking function in the online exam is strictly enforced, which prevents pupils from revising in regular exams.

The system had a few unanticipated and unavoidable problems; some solved instantly by experts, others through initial or online training, except for a few technical glitches that were beyond the institution's scope.

RQ4 What are the most prominent features/benefits of the online assessment system?

Every institution adopts a system that benefits maximum to increase its efficiency and productivity. Sudden closure due to pandemics had left no option but to choose the best option available to ensure uninterrupted learning. Teachers expressed their genuine opinion illustrating the following merits.

T1: It saves a lot of planning required to conduct classroom tests. The assessment can be done with a limited workforce. The students are benefitted extensively, too, as they can score much better compared to the traditional method of testing.

T2: From my practical experience, online assessment is more effective and valid as the

correction process is done electronically and without human intervention. On the other hand, when teachers finish conducting onsite quizzes/exams and start checking, they may make mistakes while checking students' papers if they are turbulent, drowsy, or stressed due to the various burdens. I have also noticed that some faculty members do not accurately re-check specific questions, such as multiple choices or true and false, as they assume the checker teacher had already done their part.

T3: Online assessment system is flexible and student-friendly. It provides a short, stipulated, and crisp platform. More minor manual corrections keep the online assessment system very objective and hassle-free. The students not only accept marks but also approach the trainers to improve.

T7: Accessibility to hinterlands and far-fetched areas, the benefit of tailored time slots, reduced administrative involvement, speedy, error-free, objective evaluation, accessibility to data, and analysis of course learning outcomes (CLOs), environment Friendly, and lesser resources needed.

The number of benefits explicitly describes the effectiveness of OLA, and it helps all stakeholders to get results accurately and timely.

RQ5 Do you prefer online language assessment? If YES, and if NO, why?

The perceptions varied a bit while answering this question, and a few feel it should prevail. The others want both online and offline assessment for students; however, one teacher expressed his concern about rejecting the OLA for students. One didn't respond to this question and left it blank.

T1: I do not prefer online assessments. The main aim of review in education is to alter the teaching methods and improve student performances based on the results. Online assessment may not allow teachers to judge the actual outcome as the online assessment system is unreliable.

T2: Yes, I do. I prefer OLA as it makes my job easier. Students will also feel satisfied with whatever mark they get as they already know that the system automatically corrects their answers.

T3: Yes, It's global and the need of the hour. My students would be able to accomplish much more.

No, technological hazards snatch away the primary role of a teacher in language assessment. Non-verbal communication (body language) is absent, and as a teacher, my strength lies in assessing both, especially for speaking skills.

T5: I prefer to have both online and traditional exams on which the marks(grades) are divided between both kinds of exams.

T6: I will prefer it for the quizzes only. PT and Final exams must be done on campus to avoid the problems of connection and authenticity.

This explains the teachers' position on the issue, but the majority favor the OLA for multiple reasons; nevertheless, a few teachers have concerns.

RQ6 What would you suggest to improve the online language assessment system?

Getting lessons from past experiences makes the system easy to operate, and teachers have suggested many measures that can upgrade and improve the online language process. The

valuable inputs to rectify the snags and flaws are appended herewith.

T1: *Any assessment should be fair and truthful and bring out the actual results to decide a future course of action. Hence, the assessment methods could be revised. The suggested amendment could include 'online assessments with video on.' When the students know they are being monitored, the assessment outcomes will be fair and truthful.*

T2: *One of the suggestions is to extend the availability of tests to students as this will give them extra time to take the quiz conveniently, leading to better marks. Another suggestion is regarding the question patterns; instead of having only multiple-choice and true or false questions, we can give open-ended questions for the reading. I have also noticed that students will be asked to write a paragraph in PT and final, but there is nothing related to this in online quizzes. It will be better to give some short writing tasks in quizzes to prepare them for PT and final exams.*

T5: *It can be improved once it is guaranteed that the technical glitches can be avoided, and the exam can vary and come in different forms other than MCQs and true or false. It can be improved when it can be phrased to measure the actual level of the students.*

T6: *Some training sessions for teachers and students at the start of each semester. Face recognition and movement detection tools to create more valid results.*

T7: *The stem of the question should be clear and brief. To assess high-level students, the question's stem should have more information to focus on analysis, synthesis, or evaluation. Avoid meaningless details in the question. Responses should be written in a manner that must not help answer the question. All response options (the correct answer and distractors) are consistent in length and style. The objective is to minimize the 'guesswork' to find the correct answer. There must not be any spelling or grammatical errors. Avoid double negatives. Some categorical terms are often used by exam writers, such as 'always' or 'never'. These are giveaways. They must be avoided. Correct tools must be used to evaluate skills.*

The suggested measures illustrate clarity on the online assessment process that needs revisit, redesign, and improvisation to make it more effective, reliable, and friendly.

Discussion

The purpose of this study was to investigate teachers' perceptions of the use of OLA. Teachers used the Blackboard Learning application for formative and summative assessment of students from seven different preparatory year language courses at Jazan University.

Descriptive analysis of the answers to the questionnaire showed that because of the closure of the university, the current on-campus language assessment procedure was not feasible during the pandemic, the Teaching and Learning Unit (TLU) at English Language Institute (ELI), Jazan University, Saudi Arabia decided to create and conduct a new language assessment exam online using University facilitated *Blackboard* Learning Application. In addition, the TLU, with coordinators, and faculty members, planned and deliberated on different possible questions, a quiz manual, a framework of parameters for evaluation for the OLA, and procedures for administering assessment tasks on Blackboard. The in-depth analysis also exhibits that the most prominent features of the online language system were immediate feedback, tailored time slots, randomized question order, reduced administrative involvement, speedy, error-free and objective evaluation, quick accessibility to data, and analysis of the course learning objectives,

environment-friendly, lesser resources needed, item analysis of the questions, statistical analysis of each group, error-free evaluation, and instant scoring on completion of the exam. By and large, teachers agreed on the effectiveness of the OLA system.

Conversely, participants expressed their grave concerns about many aspects of the online assessment process in language learning contexts, which are aligned with several barriers to practices (Hedayati & Marandi, 2014; Jahanban-Isfahan et al., 2017). Firstly, in the online test, students get one question or a few questions on a computer screen, contrary to hard sheets of paper. Addressing this concern, Haas and Hayes (1986) found that computer administration yielded lower scores than paper-and-pencil administration if a text passage associated with a test item required more than one page because of the difficulty of reading the extended text on-screen. However, in offline assessment, students can easily refer to the questions they feel to read by turning pages backward or forward. Secondly, students faced problems getting questions in a randomized order which needs excellent focus, concentration, and high language proficiency since Clariana (1997) feels that the difference probably leads to greater focus and closure with each computer-based item, and items on display may increase transition time and memory load with a tighter focus on and closure of each item. On questions on-screen in a randomized order, Beaton and Zwick (1990) reported that a question or item in a test displayed in a randomized order, especially multiple-choice response options, can affect the performance of an item. Abduh (2020) discovered that teachers encountered significant difficulties evaluating students online. Todd (2020) demonstrated that although teachers initially faced numerous important issues, they eventually came up with solutions to address them. They also discussed issues with finding appropriate, exciting activities and evaluating the work that still needed to be completed by the students.

The other grave areas include: unethical practices and questionable truthful approaches by students in online assessment, erratic internet connection, especially in remote places, technological failures, the time limitation for each question, question phrasing, etc., which may affect the quality of answering, hinder the students from responding accurately or even misunderstood the question. The students, in offline assessment, have the privilege to revise, which they are deprived of in the online exam because of the strict use of the backtracking feature. Khatoony and Nezhadmehr (2020) examined multiple challenges Iranian teachers encountered using technology in online classes during the COVID-19 outbreak, and the results revealed many issues, including a lack of appropriate resources, lack of students' interest and motivation in online learning, a lack of funding, and support for language schools.

Multiple challenges came along while developing language tests for online assessment and, in-home delivery, including technical glitches, internet connectivity, contained zones, lockdown areas, test security, and effective conduct on various virtual online or offline platforms. Students complained about the timings, testing attempts, limited power supply, weak or no internet issues (Wagner & Krylova, 2021), availability or malfunctioning of electronic gadgets, and students' lack of digital literacy to take tests in online applications. On a few occasions, the confidentiality of tests was also compromised, cheating cases in regions where on-camera exams were not allowed, and limited teachers' computer knowledge to upload and administer the tests are of utmost significance, especially in the case of assessing the four

language skills assessment, which was later on alleviated time to time by dedicated experts. Turnbull et al. (2021) also indicated challenges regarding academic dishonesty, privacy, and confidentiality in the online assessment. Additionally, students weren't ready to disclose their personal information to prove their identity leading them to lose access to the online test. Also, in some cases, students cheated in the exams without a camera, which further raises concerns over the validity and accuracy of obtained results meeting the learning objectives. The marks obtained didn't match with the actual performance in an offline class of many students. The assessment tests were carried out online. Later, when the situation improved in May last year, the summative exam was conducted face-to-face environment at the campus, but on a reduced syllabus and less duration of the exam. Xu and Liu (2018) claimed that the impact of assessment could be either favorable or unfavorable. Similarly, the teachers had a callous time catering to the limited seating capacity following the government guidelines on health safety, social distancing, classroom sanitization, wearing of masks, etc., resulting in increase in their working hours. A few colleges adopted at-home assessments synchronously delivered to students through video-mediated computer technology like WhatsApp, emails, etc. Ghanbari & Nowroozi (2021) stated that the experience during COVID prepared the faculty for a blended learning approach and increased their awareness of global and future challenges. Likewise, there are enormous challenges both learners and teachers experience related to at-home video-mediated online test delivery and also in the face-to-face environment.

Conclusion

The stated descriptive analysis, findings, discussion, observations, facts, and information on language assessment in COVID-19 explicitly define that the crisis has shown our flaws, weaknesses, and unpreparedness in many areas; nevertheless, its brought many opportunities as well in the field of language assessment. In addition to examining the potential for using online apps to validate the style of assessment, the findings have proved how teachers perceive the use of online language assessment using technology. The teachers' perceptions also claimed that the unforeseen situation forced the language assessment developers to be thoughtful, creative, innovative, and daring in their methods, providing a safe testing milieu without conceding the authenticity, legality, and validity of the decisions based on their assessments. We conclude that assessing students' language skills need a timely revisit, redesign, and revision of assessment techniques to compromise construct representation. This challenge needs further development as the situation demands either audio or video-mediated online or proceeding to at-home online assessment delivery but always with caution. The given explanation revealed that the OLA facilitates the accomplishment of learning objectives comparable to that hitherto developed in offline classrooms, and the language learners also concede and adapt the efficacy of these online courses for learning a language. This guides teachers to plan, develop and evolve the traditional assessment system to conduct online exams for better interpretation of learning outcomes, curriculum, teaching practices, and preparedness to deal with such catastrophic situations in the future to realize further that we may adapt and show resilience in a pressing need by making requisite changes more swiftly than anticipated. Furthermore, the online tests used to deliver construct-representative assessments, despite the given challenges, will indubitably facilitate shuttle in a new age of technology-mediated language assessments. The effect of language assessment conducted entirely online in different assessments on course materials designed and developed by the language teachers is still open for further investigation. Likewise, it is hoped

that this study on the assessment approaches, significant challenges, and successes of delivering language assessments online in times of COVID-19 will help all stakeholders as they navigate these new and unanticipated waters.

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References

- Abduh, M. (2021). Full-time online assessment during COVID-19 lockdown: EFL teachers' perceptions. *Asian EFL Journal*, 28(1), 1–22.
- Abedi, J. (2017). Utilizing accommodations in assessment. In E. Shohamy, I. G. Or, & S. May (Eds.), *Encyclopedia of language and education: Language testing and assessment* (3rd ed., 303–322). Cham, Switzerland: Springer. https://doi.org/10.1007/978-3-319-02261-1_21
- Adnan, N.R., Abdullah, W.K.W., Muda, R., Sallem, N.R.M. (2019). Is current formative assessment still relevant in turning students into deep learners? *TEM Journal*, 8(1), 298-304.
- Ali, Md. M., & Hamid, M. O. (2020). Teaching English to the test: Why does negative washback exist within secondary education in Bangladesh? *Language Assessment Quarterly*, 17(2), 129–146. <https://doi.org/10.1080/15434303.2020.1717495>
- Beaton, A., & Zwick, R. (1990). *The effect of changes in the National Assessment: Disentangling the NAEP 1985-86 reading anomaly*. Princeton, NJ: Educational Testing Service.
- Bodmann, S.M., & Robinson, D. H. (2004). Speed and performance differences among computer-based and paper-pencil tests. *Journal of Educational Computing Research*, 31(1), 51–60. <https://doi.org/10.2190/GRQQ-YT0F-7LKB-F033>
- Chapelle, C. (2020). Discussion. In E. Voss (Chair), *Exploring the future of online language testing and assessment: Technological opportunities and challenges*, 618 *Language Testing*, 37(4). <https://www.iltaonline.com/page/ILTAWebinar>
- Clariana, R.B. (1997). Considering learning style in computer-assisted learning. *British Journal of Educational Technology*, 28, 66-68. <https://doi.org/10.1111/1467-8535.00008>
- Conole, G., & Warburton, B. (2005). A Review of computer assisted assessment. *ALT-J, Research in Learning Technology*, 13(1), 17-31.
- Daniels, M., Sarte, E., & Cruz, J. D. (2019). Students' perception on e-learning: A basis for the development of e-learning framework in higher education institutions. *IOP Conference Series: Materials Science and Engineering*, 482, 1-7. <https://doi.org/10.1088/1757-899X/482/1/012008>
- Doculan, J. (2016). E-Learning readiness assessment tool for Philippine higher education institutions. *International Journal on Integrating Technology in Education*, 5(2), 33-43. <https://doi.org/10.5121/ijite.2016.5203>
- Elvis Wagner & Anna Krylova (2021) Temple University's ITA Placement Test in Times of

- COVID-19. *Language Assessment Quarterly*, 18(1), 12-16.
- Furaidah, F., Saukah, A., & Widiati, U. (2015). Washback of English national examination in the Indonesian Context. *TEFLIN Journal - A Publication on the Teaching and Learning of English*, 26(1), 36.
- Galaczi, E., & Taylor, L. (2018). Interactional competence: Conceptualisations, operationalisations, and outstanding questions. *Language Assessment Quarterly*, 15(3), 219–236.
- Ghanbari, N. & Nowroozi, S. The practice of online assessment in an EFL context amidst COVID-19 pandemic: views from teachers. *Language Testing Asia*, 11, 27.
<https://doi.org/10.1186/s40468-021-00143-4>
- Haas, C., & Hayes, R. (1986). What did I just say? Reading problems in writing with the machine. *Research in the Teaching of English*, 20, 22-35.
<https://www.jstor.org/stable/40171057>
- Helfaya, A., & O'Neill, J. (2019). Staff reflections on using E -assessment feedback in the digital age in Advances Chapter 16 in *Higher Education and Professional Development*. www.igi-global.com/chapter/staff-reflections-on-using-e-assessment-feedback-in-the-digital-age
- Hedayati, H., & Marandi, S. S. (2014). Iranian EFL teachers' perceptions of the difficulties of implementing CALL. *ReCALL*, 26(3), 298–314.
- Jahanban-Isfahan, H., Hadidi Tamjid, N. & Seifoori, Z. (2017). Educational technology in Iranian high schools: EFL teachers' attitudes, perceived competence, and actual use. *Education Research International*, 2017, 1-9. <https://doi.org/10.1155/2017/9738264>
- Khatoony, S., & Nezhadmehr, M. (2020). EFL teachers' challenges in integration of technology for online classrooms during Coronavirus (COVID-19) pandemic in Iran. *AJELP: Asian Journal of English Language and Pedagogy*, 8, 1–16.
<https://doi.org/10.37134/ajelp.vol8.sp.1.2020>
- Kremmel, B., & Isbell, D. (2020). Test review: Current options in at-home language proficiency tests for making high stakes decisions. *Language Testing*, 37(4), 600–619.
<https://doi.org/10.1177/0265532220943483>
- Kremmel, B., & Harding, L. (2020). Towards a comprehensive,empirical model of language assessment literacy across stakeholder groups: Developing the language assessment literacy Survey. *Language Assessment Quarterly*, 17(1), 100–120.
- Li, C. & Lalani, F. (2020). *The COVID-19 pandemic has changed education forever. This is how*. WeForum<https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning>
- Luppicini, R. (2007). Review of Computer Mediated Communication Research for Education. *Instructional Science: An International Journal of the Learning Sciences*, 35(2), 141-185.
<https://doi.org/10.1007/s11251-006-9001-6>
- Montelongo, R., & Eaton, P. W. (2019). Strategies and reflections on teaching diversity in digital space(s). In L. Kyei-Blankson, J. Blankson, & E. Ntuli (Eds.), *Care and culturally responsive pedagogy in online settings* (41-62). Hershey, PA: IGI Global.
- Ockey, G.J., & Baghestani, S.V.S. (2020). Establishing Appropriate Cut Scores of a Standardized Test for a Local Placement Context. *TESOL Quarterly*, 55(3), 719-742.
<https://doi.org/10.1002/tesq.3007>
- Plough, I., & Raquel, M. (Eds.). (2020). *ILTA Newsletter*, 4(1).
<https://www.iltaonline.com/page/NewsletterMay2020>

- Mompean, A. (2010). The development of meaningful interactions on a blog used for the learning of English as a Foreign Language. *ReCALL*, 22(3), 376–395. <https://doi.org/10.1017/S0958344010000200>.
- Ros, I., Sole, C., Calic, J., & Neijmann, D. (2010). A social and self-reflective approach to MALL. *ReCALL*, 22(1), 39–52. <https://doi.org/10.1017/S0958344009990188>.
- Shadish W, Cook T, & Campbell, D. (2002). *Experimental and Quasi-Experimental Designs For Generalized Causal Inference*. Boston, Mass, USA: Houghton-Mifflin Company.
- Sharma, V. (2018). Influence Factors in Students' Motivation for Communicative Competence: A Case Study in KSA. *JLLT* (50), 37-47.
- Sharma, V. (2019). Saudi Students' Perspective on Social Media Usage to Promote EFL Learning. *International Journal of Linguistics, Literature and Translation*, 2 (1), 129-139. <https://doi.org/10.32996/ijllt.2019.2.1.17>
- Todd, W. R. (2020). Teachers' perceptions of the shift from the classroom to online teaching. *International Journal of TESOL Studies*, 2(2), 4–16.
- Turnbull, D., Chugh, R., & Luck, J. (2021). Transitioning to e-Learning during the COVID-19 pandemic: How have higher education institutions responded to the challenge? *Education and Information Technologies*, 1-19.
- Wagner E., & Krylova A. (2021). Temple University's ITA placement test in times of COVID-19. *Language Assessment Quarterly*, 18 (1), 12–16. <https://dx.doi.org/10.1080/15434303.2020.1862849>
- Xu, Q., & Liu, J. (2018). A study on the washback effects of the test for English majors (TEM): Implications for testing and teaching reforms. Springer Singapore. <https://doi.org/10.1007/978-981-13-1963-1>.

A Systemic Functional Linguistic and Critical Discourse Analysis of A Selected Speech on COVID-19

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Abstract

This paper displays a Systemic Functional Linguistic and Critical Discourse Analysis of Boris Johnson's first public speech on COVID-19. Covid-19 is a very dangerous infectious disease caused by the last discovered virus of the Coronavirus strain. This virus began in Wuhan's Chinese city in December 2019. COVID-19 has spread from Wuhan to the rest of the world. It has now turned into a pandemic affecting the whole world. Halliday's (2004) model of systemic functional linguistics (meta-functions), relying on interpersonal and ideational metafunctions, and Van Dijk's ideology and discourse (2000) model depending on the argumentation categories, are the adopted models of analysis. The paper's main objectives are to analyze the speech of Prime Minister Boris critically to uncover the used ideologies to advise, persuade and control the people's beliefs and actions. In addition, this paper aims to identify the interpersonal and ideational meta-functions in the selected speeches of the chosen figure stating their frequencies, then finding out how these features uncover the ideological strategies used to affect all people; Finding the argumentation categories that are used by the prime minister to support the ideas and actions presented. The paper presents a theoretical background of discourse, Critical discourse analysis, dominant, and ideology. Explains the adopted models; Analyzes the speech critically.

Keywords: Boris Johnson, Critical, COVID-19, discourse analysis, dominant, discourse, ideology, power, speech, systemic functional linguistic

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Introduction

Covid-19 is a very dangerous infectious disease caused by the last discovered virus of the Coronavirus strain. Before the outbreak, no one knew about this new virus, which began in Wuhan Chinese city in December 2019. COVID-19 has spread from Wuhan to the rest of the world. It has now turned into a pandemic affecting the whole world.

The main object of critical discourse analysis is public speech. The goal of Critical Discourse Analysis (CDA) is to discover the relation between language, ideology, and power (McCarthy, 1991). CDA treats discourse as a kind of social practice. Most usages of linguistic structures adopt ideological strategies and investigate how language resolves and presents the world from different views.

This study concerns itself with utilizing CDA to make it clear to the readers the different ideologies the selected political leader used to treat a current health issue that needs prompt action to guide the public.

A qualitative-quantitative method with a descriptive approach is used to handle a critical discourse analysis through the use of Halliday's (2004) model of systemic functional linguistics (meta-functions) and Van Dijk's (2000) ideology and discourse model.

The study is of great value because it provides a rigorous analysis of how writers or speakers use hidden ideologies through the use of linguistic tools to make the readers or listeners engaged with the information delivered for a better understanding of the text and speech and how can make the people affected by the used ideologies to perform to required actions.

The study aims at analyzing discourse of the Prime Minister Boris critically to uncover the used ideologies to advise, persuade and control the people's beliefs and actions; besides, Identifying the interpersonal, and ideational meta-functions in the selected speeches of the chosen figure stating their frequencies then finding out how these features uncover the ideological strategies used to affect all people; Finding the argumentation categories that are used by the prime minister to support the ideas and actions presented. It attempts to answer questions such as: what are the most ideological strategies used by Prime minister Boris Johnson of the UK; How does the speaker displays his power and authority through the use of certain ideologies through the use different linguistic devices to affect the public; what are the most dominant meta-functions used by Boris Johnson to manipulate the situation, advice, guide, dominate and save the people, and how does Boris Johnson support the presented ideas and actions through the use of particular argumentation categories?

Critical Discourse analysis

CDA is defined widely as an approach that shows language as a social practice. CDA is concerned with how the ways of ideologies and power are expressed by language. One interesting point about CDA is that it is not concerned with the words printed on the pages, but CDA asks why and how such words are spoken or written. According to Van Dijk (2001) "Critical Discourse Analysis (CDA) is a type of discourse analytical research that primarily studies the way social power abuse, dominance, and inequality are enacted, reproduced and resisted by text and talk in the social and political context." (p.352).

For Fairclough (1995), CDA is:

The kind of discourse analysis which aims to systematically explore often opaque relationships of causality and determination between (a) discursive practices, events and texts, and (b) wider social and cultural structures, relations and processes; to investigate how such practices, events, and texts arise out of and are ideologically shaped by relations of power and struggles over power; and to explore how the opacity of these relationships between discourse and society is itself a factor securing power and hegemony (Fairclough, 1995 as cited in Hashemi & Ghanizadeh, 2012, p.38)

The aim of CDA is "to unmask ideologically permeated and often obscured structures of power, political control, and dominance, as well as strategies of discriminatory inclusion and exclusion in language in use" (Wodak, 1992). Thus, CDA tries to explain the relation between discourse, marginalization, dominance, social inequality, and ideology. Furthermore, since CDA has an interdisciplinary nature, so it is applied to a variety of disciplines, to name a few: business, politics, education, and media. (Hashemi & Ghanizadeh, 2012). Mostly, CDA is chosen to analyze speeches to uncover their ideologies and power as Wodak (2001) claims with CDA the relation between power and ideology and their use for dominance.

Ideological Discourse Structure

Several ways can emphasize or deemphasize meaning based on an ideological basis. The ideology can be analyzed on many levels of discourse, such as meaning, formal structure, sentence syntax, discourse form, argumentation, Rhetoric, action and interaction, and through some analytical categories to display the ideological properties of discourse. One of these categories is argumentation which can be manifested by using some strategies.

Argumentation

Discourse genres such as scholarly articles, editorials in the press, or parliamentary debates have argumentative structures. Speakers who have social power as political speakers, organizations, experts, moral leaders, the media, scholars, and the church are the ones who tend to

mention authorities to support their arguments. And, of course, different people who have different ideologies mention various authorities (Van Dijk, 2006)

Methodology

The models adopted for this study are Critical Discourse Analysis and Systemic Functional Linguistics (interpersonal and ideational metafunctions of the transitivity system). They are used to analyze Boris Johnson's first speech on Covid-19 which took place on 9th March 2019.

Halliday's Systemic-Functional Linguistics, 2004

SFL proposes a practical methodological frame for investigating language in context, whether the context is that of science, advertising, politics, or any other context. SFL describes "language in use." It does not look at language as a "set of generalized rules detached from any particular context of use" (Thompson 2004: p.1). SFL divides language into three semantic metafunctions, which collectively represent meaning as construed in language. These metafunctions correspond to ideational, interpersonal, and textual meanings. (Halliday & Matthiessen, 2004)

Ideational Metafunction

The ideational metafunction shows how human experience is construed. This metafunction is of two meanings: experiential and logical meanings. Experiential meanings can be classified into six types: material, mental, relational, behavioral, verbal, and existential. Halliday & Matthiessen, 2004)

Interpersonal Meta-function

This function shows how relationships between people are achieved and "language as action" (Halliday & Matthiessen 2004, p.30). The interpersonal meaning is represented in the interaction between the writer and the reader in written language. This function includes mood and modality. There are three types of interpersonal clauses structured in English: declarative, interrogative, and imperative. They are all known as moods." (Halliday & Matthiessen, 2004,p:30)

Van Dijk's (2000) Ideology and Discourse

CDA is defined as "fundamentally concerned with analyzing opaque and transparent structural relationships of dominance, discrimination, power, and control as manifested in language" (Wodak 1995,p.204 as cited in Muhammed & Flaifel,2015, p.1). CDA is seen as a tool to stand against domination and inequality and a way to change. Scholars agree that CDA is concerned with analyzing and studying texts, whether spoken or written, interpreting discursive sources of power, inequality, racism, and dominance. CDA's role here is to analyze how the discursive source is 'reproduced' within economic, political, and social contexts. Furthermore,

CDA is "a type of discourse analytical research that primarily studies the way social power abuse, dominance, and inequality are enacted, reproduced and resisted by text and talk in the social and political context" (Van Dijk, 2001, p.352 as cited in Muhammed & Flaifel, 2015 p.2)

The notion of 'ideology' is being used broadly in social science, particularly in politics and mass media. Thus, ideology is a system of a social group or movement ideas. The group members of a specific ideology share general ideas that they are regarded as the basis of the beliefs of their world; in turn, these beliefs mentor their social practice. Therefore, "Ideologies are the fundamental beliefs of a group and its members." (van Dijk, 2000, p.7)

Considering ideologies are expressed and acquired by discourse. Thus, this must happen according to several structures and strategies. For example, the pronoun 'We' is one of the structures where it refers to the in-group of the speaker. Context also has a significant role. Some variables may be 'ideologically marked' as stress, volume in expressing a word or phrase, intonation, etc. (van Dijk, 2000)

Authority

A strategy through which the speakers or writers tend to mention authority to support their case, people or organizations of party politics, or who are moral leaders or experts, international organizations, scholars, or the media usually have this role. (Van Dijk, 2000)

Counterfactuals

A great way to define counterfactuals is "what would happen if." counterfactuals are considered a significant role, especially in debates, because they allow speakers or writers used them to show nonsensical consequences. Counterfactuals are relevant in political debates to manifest what would happen if the public did not follow the law or take measures. (Van Dijk, 2000)

Explanation

The speakers and writers explain their perspectives on illegal acts according to their considerations (Van Dijk, 2000)

Openness, Honesty

This strategy assumes that mitigation, not telling the truth, may be perceived as a normal principle, to be precise, to prevent a bad impression on the receivers. However, breaking this norm of telling the truth has been encouraged and supported recently. Hence, speakers presume that their argument complies with openness and honesty values, still at the same time allowing or satisfying negative other presentations. (Van Dijk, 2000)

Reasonability

Another strategy of argumentation is reasonability which shows that the arguments are sound, reasonable, or convincing, but also the speaker is sound. Such strategy is noteworthy when the argument implies that the speaker is prejudiced. Consequently, this strategy has an additional utility in impression management and positive self-presentation. (Van Dijk, 2000)

Comparison

Sometimes two or more groups have opposite interests, which causes a kind of competition. Such contrast may show in several forms of 'polarization,' as the pronoun 'US, THEM. (Van Dijk, 2000)

Evidentially

When speakers present their points of view or claims, they need to support their speech with evidence. They have to mention how or where they got this information, such as from a newspaper or have seen by themselves or from a spokesperson. (Van Dijk, 2006)

Generalization

Generalization is "a strategy that allows writers to go from concrete events and persons to more embracing and hence more persuasive statements about other groups and categories of people" (Van Dijk,1998,p.15)

Number Game

This strategy is used to enhance objectivity and credibility. So, such a strategy is seen to be used in the news to improve the objectivity of reports; on top of the means of showing objectivity and persuasively are numbers and statistics. They are used in news reports, the number of immigrants, and parliament. '(Van Dijk,2006 as cited in Kareem, 2019, p. 49)

Systemic Functional Linguistic Analysis

Using SFL tools to analyze a specific speech serves to provide a micro analysis through the use of interpersonal metafunction (mood and modality structures), and the ideational metafunction (the material, mental, existential, verbal, behavioral, and relational process of the transitivity pattern)

Examining the Interpersonal Meta Function

Personal Pronouns

The speaker's selection of pronouns has an important role in conveying interpersonal interaction. Interpersonal meanings are embodied in the personal system. i.e., The choice of personal pronouns has a crucial impact on the relationship between the speaker and the audience as they may show intimacy or authority of the speaker (Halliday & Matthiessen, 2004).

Table 1. *Distribution of person system in Boris's Speech*

Types of pronouns	Frequency	%	possessive		%
1 st person singular (I)	5	12.5	My	2	5
1 st person plural (we)	19	47.5	Our	2	5
2 nd person (You)	2	5			

It	4	10	Its	1	2.5
Third person pronoun (they)	1	2.5	Their	4	10

The number of the 1st plural pronoun *we* and its variant *our* have the highest frequency score (21 times equals 52.5%) in Boris's speech. *We* occurs 19 times with a percentage of 47.5%, and *our* occurs two times with a rate of 5%. Of course, many semantic implications can be derived and understood using the pronoun *we*. Using the pronoun *we*, the speaker and the hearers are involved in the situation. In political speeches, *We* is used to refer to institutional identity and to ascertain shared responsibility. Using the pronoun, *we* is inclusive when Boris refers to both the speaker as an individual or institutional entity and the listener(s). Here, *we* involves cohesiveness and unity as in:

"..... *the best thing we can all do is wash our hands for 20 seconds with soap and water.*" He uses the pronoun *we* in an exclusive way to refer to the government only.

"The First Ministers of Scotland and Wales and the First Minister and deputy First Minister of Northern Ireland also attended, and we agreed to continue to work closely in the weeks and months ahead."

Boris uses the pronoun *We* cleverly to avoid selfness and enhance togetherness. He involves all the participants (government, the speaker as an individual, and the hearers) in the prospective issue to gain the hearers' support and avoid the negative implication for those involved in the action. Boris uses *we* exclusively more than inclusively. He uses exclusive *we* 14 times corresponds to ratio 73.684% while inclusive *we* occurs seven times with a ratio of 36.842%. He wants to comfort the audience that the government is involved strongly in this issue and is working hard to overcome this pandemic with no or little loss. He tries to show the people that the whole government is responsible for protecting them. Using the inclusive *we* is of significant importance. Boris wants to make the audience bear responsibility and help the government get set goals. He makes them realize that the goals cannot be reached without group work and unified efforts by the government and the people. The 1st person singular pronoun *I* obtains the second level as it occurs five times and 12.5 % with its variant *my*, which occurs two times 5%. This pronoun indicates that the speaker has an authority (power) that gives him the right to make the decision and instruct others. The third impersonal pronoun *it* and its possessive form with the third personal pronoun *they* share the third rank in the frequency of occurrence. They score (5) occurrences with 10% percentage, The impersonal pronoun *it* is used to refer anaphorically to the disease and the action taken. Besides, it is used as a dummy pronoun to have a grammatical meaning, not a lexical one, to make the sentence sounds like a grammatical one, as in:

"While it is absolutely critical, it's absolutely critical in managing the spread of this virus that we take the right decisions at the right time, based on the latest and best evidence."

As for the use of the third personal pronoun *they*. It is used in its possessive form to refer in an anaphoric way to the public's relatives and families, the Chief Medical Officer and the Chief Scientific Advisor, and to the victims' families. He addresses the whole and involves all the principals in this challenge.

The pronouns *we* and *I* are chosen specifically as they are the most remarkable ones. They indicate who the speaker identifies with, and they have the power to exclude and include the audience. They can and have the power to change the influence the speech has on the audience.

Modality System

Table 2. *Distribution of Modality system in Boris Speech*

Low degree	Frequency	%	Medium degree	Frequency	%	High degree	Frequency	%
Can	4	30	will	7	53.846	must	1	7
Could	1	7	Would	None		Ought to	None	
May	None		Shall	none		Need to	None	
Might	None		should	none				

Boris uses the modal verb *will* more frequently than others, with a score of 7 times and 53.846 %, as he wants to express his and his government's determinations and intentions to do certain actions in the future. He is promising people to overcome this health issue with little loss. Through the use of *will* in his speech, Boris performs an illocutionary speech act of promise to represent his commitments to his people in facing this challenge as in:

"Patrick and Chris will give you some more detailed."

"We will set out further steps in the days and weeks ahead to help people."

The illocutionary speech force of using *will* is not only for the promise but also to convey the indirect acts of warning. Boris alerts the public of the significant challenge they face as in the following sentence:

"The coronavirus outbreak will present significant challenges for the UK."

The second-highest range of occurrence is the modal verb *can*, which gains 30% frequency of occurrence. Boris uses *can* to show ability or the strong possibility to perform the action as in:

"The more we can delay the peak of the spread to the summer, the better the NHS will be able to manage."

"I have no doubt that we can and will rise to that challenge."

In addition, he uses *could* only one time with 7% frequency of occurrence to imply the probability or expectation that if they do not follow the instructions, everything is expected to show counterproductive.

"So we must not do things which have no or limited medical benefit, nor things which could turn out to be counterproductive."

Whereas *must*, which is the strongest modal verb, is used one time with a frequency of 7% of occurrence to show a strong judgment based on the available evidence. Here, Boris uses *must* in the negative form to set his conclusion based on the latest evidence of the Covid-19 spread with an order not to do things that gives negative results.

Mood System

Mood is an important component that reflects the interpersonal metafunction of the clause (Thompson, 2014). Mood is divided into the indicative and imperative mood and subjunctive mood, as stated in (Halliday & Matthiessen, 2004).

Table 3. *Distribution of Mood system in Boris Speech*

Indicative	percentage	Imperative	Percentage	Subjunctive	percentage
28	80%	1	2.857%	5	14.285

Most Boris' speech comprises the indicative mood statements (28 – 80%) as the purpose of his speech is to exchange information and inform the public about the updated information concerning coronavirus and the actions the government fulfills. He uses this mood to make the public aware of what's happening. In turn, the public will feel comfort because they feel that their government is highly concerned about the issue as in the following extract, which consists of three sentences. The following sentences reflect the indicative mood:

"This morning I chaired a meeting of the government's COBR emergency committee on the Coronavirus outbreak. The First Ministers of Scotland and Wales and the First Minister and deputy First Minister of Northern Ireland also attended and we agreed to continue to work closely in the weeks and months ahead."

In addition, the imperative mood reflects the least percentage of occurrence 2.847% as there is only one sentence that reflects the imperative mood as in:

" we must not do things which have no or limited medical benefit, nor things which could turn out to be counterproductive."

The imperative mood is not realized from the sentence structure but it is realized from the context and the tone of speech. Boris uses the high degree modal auxiliary *must* in its negative form to reflect his authority and at the same time he expresses command in an indirect way including himself and the government to soften the effect of the command and at the same time to give them the picture of being all together facing the same enemy, sharing the same danger and bearing the same responsibility.

The last mood which is the subjunctive mood occurs five times(14.285%). By using this mood Boris wants to express his desires, opinions and feelings as when Boris expresses his feelings of being grateful to the Chief Medical Officer and the Chief Scientific Advisor for their efforts.

"I repeat my gratitude to both Chris and to Patrick."

He also uses if- clause to states his hypothetical opinion that if they all pay attention to one another, they will overcome this challenge. At the same time, he expresses his certainty of the outcomes.

"But if we continue to look out for one another, to pull together in a united and national effort, I have no doubt that we can and will rise to that challenge."

Then, Boris shows his desire to stress things to be followed and at the same time he expresses the public desire to hear from the advisors to be acquainted with the situation.

"I know there are lots of things the public want to hear from our advisors about

I want to stress the following things"

Ideational meta function

This paper's ideational meta function analysis relies on the transitivity pattern only tackling the (material, mental, existential, verbal, behavioral and relational process of the pattern). Transitivity concerns itself with " the meaning level associated with the verbal clause part and submits information on the action, event, and states." (Al-Janabi & Al-Marsumi ,2021,p.247)

Transitivity System

Transitivity system is chosen to signal the speaker's ideology and manipulation in this speech

Table 4. *Transitivity System*

No	Material process	%	mental process	%	Existential process Frequency	%	Verbal process	%	Relational process Frequency	%	behavioral process Frequency	%
1	20	46.51	7	16.27	3	6.97	4	13.333	9	20.93	Null	0

Boris uses 57.142% of his clauses for the material process as if he wants to convey that this time is the time for doing and making actions. He presents a lot of actions to be done like when he says: "I Chaired a meeting of the government's COBR emergency committee on the Coronavirus outbreak; We are making extensive preparations for a move to the delay phase; We are preparing various actions to slow the spread of this disease to reduce the strain it places on the NHS; we are doing everything we can to combat this outbreak" and other verbs such as give, work, do look out, pull, attend, delay, make, manage. Such use of material process reflects the speaker's power and dominant ideology. He uses his power to show the actions he and his government will take concerning the health issue to comfort the public that they are not alone in facing and fighting this virus. At the same time, it is considered a way of persuading the public to take their turn and bear responsibility in doing whatever they are instructed to do.

Relational process comes second level represented with 20.930%. Boris uses this process to categorize and describes the present situation of the county and the NHS efforts is facing the virus. this process is realized by using verbs such have and be as in:

"the better the NHS will be able to manage."

"Second, we have a truly brilliant NHS"

"it's absolutely critical in managing the spread of this virus"

"I have no doubt that we can and will rise to that challenge"

The third level percentage goes to the mental process, which gets 20% of the total processes. Boris uses this process to uncover his, the government, and the scientists' cognition about the health issue. Boris uses verbs like "think, expect, want, know, doubt..etc." as in "to reflect the experience of the mindful world which takes place in the consciousness.

"We expect that advice to change as the outbreak develops."

"I know there are lots of things the public want to hear from our advisors about."

"I have no doubt that we can and will rise to that challenge."

"Our scientists think containment is extremely unlikely to work on its own."

Boris shows the public what they expect, know, think, and want, i.e., he uncovers their inner consciousness about this issue but in a way that he doesn't concentrate on this mental process because this is the time of taking action, not experiencing other processes.

Verbal process and existential process take 14.285% and 8.571% consequently. Boris uses verbs like "ask, repeat, respond," relying on the verbal process to repeat gratitude to Chris and Patrick and repeat some delivered instructions to the public to follow:

"I repeat my gratitude to both Chris and Patrick."

I.....ask Patrick and the Chris to give their own perspective on where we are."

I'm.....repeating that the best thing we can all do is wash our hands for 20 seconds with soap and water."

Critical Discourse Analysis

As the categories of Van Dijk's modal of discourse and ideology consists of three levels of description: meaning, Rhetoric, and argumentation, the last one is chosen to be within the scope of the study as it supplies the reader with the strategies used by the speaker to support his issue. These categories and the purpose behind using them are illustrated below.

Authority

Boris Johnson mentions the name of the CDBR committee, the First Minister of Scotland and Netherland, and the Deputy First Minister of Northern Ireland. He mentions the chief Medical Officer and the Chief Scientific Advice (Chris and Patrick) more than once.

Boris tries to support his speech from the very early beginning as he mentions authority to reflect the seriousness of the issue. He uses the argumentation category of authority to give his speech a taste of truthfulness and seriousness.

Counterfactuals

Counterfactuals are used to manifest what would happen if the public did not follow the law or take measures.

"if we continue to look out for one another, to pull together in a united and national effort, I do not doubt that we can and will rise to that challenge."

"The more we can delay the peak of the spread to the summer, the better the NHS will be able to manage."

Here, Boris Jonson assures the public that they will overcome this challenge if they work together in the same direction and follow the rules.

Explanation

Boris explains his perspective toward illegal acts as he says"

"So we must not do things which have no or limited medical benefit, nor things which could turn out to be counterproductive."

Openness, Honesty

This strategy assumes that not telling the truth may be considered a kind of mitigation; however, breaking this norm of telling the truth. Hence, Boris presumes that his argument complies with openness and honesty values. He describes the situation to the public in a very honest way. He presents the number of deaths, explains the phases and actions in detail, he even sets his expectation for the future. He mentions some positive self-representation as having the best brilliant scientists in the world who will be present to help overcome this issue.

"There have now been four deaths from coronavirus in the UK."

"We have a truly brilliant NHS, where staff has responded with all the determination, compassion, and skill that makes their service so revered across the world."

Reasonability

An important strategy of argument when the argument sounds to entail that the speaker is prejudiced. Boris argues that they have the most brilliant scientists globally, which undoubtedly makes their service so revered around the globe. He also expresses his management positively as he mentions that NHS will continue to have this government's full support, my support "Boris," in tackling this virus on the frontline.

Comparison

Boris compares his NHS with the world's, but he doesn't mention any negative implications concerning the others. He only gives positive self-representation when he makes sure that they can overcome the situation and have a brilliant NHS..

"We have a truly brilliant NHS, where staff"

Evidentially

Boris supports his speech with evidence as he mentions how or where he got this information, He always refers to the Chief Medical Officer and the Chief Scientific Advice (Chris and Patrick) and NHS.

Generalization

Using this strategy allows writers to set more persuasive statements and categories of people. Boris generalized the critical situation when he mentioned that this case is not only ours but is a global one when he said:

"There is no hiding from the fact that the coronavirus outbreak will present significant challenges for the UK, just as it does in other countries."

Number Game

Number games is one of the top means of showing objectivity and persuasiveness. Boris uses this strategy to enhance objectivity and credibility. He mentions the number of deaths, number of phases, 20 seconds. He displays the number of deaths to make the public aware of the danger they are in and follow the rule of four phases and a 20-second duration wash of their hands.

Conclusion

Through the application of SFL model and CDA, It seems that Boris uses the chosen tools of these models to reflect and uncover some ideologies in his first speech such as togetherness as a kind of comfort, engagement in the issue and persuasion to gain the hearers' support, and avoid the negative implication of those involved in the action. Thus, he makes the public bear responsibility and help the government overcome the health issue. He reveals his authority (power) that gives him the right to make decisions and instruct others. At the same time, Boris uses the modality system to express his government determinations and intentions to do certain actions in the future. He promises people to overcome health issue with little loss and shows ability or the strong possibility to perform the action. In addition, he displays probability or expectation that if they do not follow the instructions, everything is expected to show counterproductive Whereas, he gives strong judgment based on the available evidence.

Boris' speech compromises the indicative mood statements as the purpose of his speech is to exchange information and inform the public about the updated information concerning coronavirus and the actions that the government fulfills. He uses this mood to make the public aware of what's happening. In turn, the public will feel comfort .He expresses command in an indirect way, including himself and the government, to soften the effect of the command and at the same time to give them the picture of being all together facing the same enemy, sharing the same danger and bearing the same responsibility.

Boris uses a material process to reflect his power and dominant ideology. He uses his power to show the actions he and his government will take concerning the health issue to comfort the public that they are not alone in facing and fighting this virus. At the same time, it is considered a way of persuading the public to take their turn and bear responsibility in doing whatever they are instructed to do. Boris uses Authority, Counterfactuals, Explanation, Openness, Honesty Comparison, evidentially, Generalization, and Number Game as the most obvious strategies that Boris used to support his speech ideology

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References

- Al-Janabi S.F.K & Al-Marsumi N.H.R.(2021). Doing Stylistics and Critical Stylistic Analysis: *Arab World English Journal*, 12(1),239-252.
- Halliday, M.A. K. & Mathiessen C. (2004) *An Introduction to Functional Grammar* (3rd Edition) London: Edward Arnold.
- Hashemi, M. R., & Ghanizadeh, A. (2012). Critical discourse analysis and critical thinking: An experimental study in an EFL context. *System*, 40(1), 37-47.
- Kareem,H.H.(2019). *A Critical Discourse Analysis of Terrorism News in American and Arabic Newspaper* [Master's thesis, University of Wasit, Iraq]
- McCarthy,M.(1991). *Discourse Analysis For Language Teachers*. Cambridge: Cambridge University Press.
- Muhammed, M. M., & Flaifel, M. S. (2015). A Critical Discourse Analysis of the 2012 American Presidential Election Debates. *Journal of the College of Languages (JCL)*, (32).
- Thomson, G. (2004). *Introducing functional grammar*. New York: Oxford University Press.
- Van Dijk, T. A. (1998). *Ideology: A multidisciplinary approach*. Sage.
- Van Dijk ,T., A.,(2006). Politics, Ideology and Discourse. In *Politics of Teaching* (pp. 728 –739) Universitat Pompeu Fabra.
- Van Dijk, T. (2001) "Multidisciplinary CDA: A Plea for Diversity, In, Wodak & Meyer (Eds) *Methods of Critical Discourse Analysis* .London Sage publications. 95-120.

- Van Dijk, T. A. (2000). *Ideology and Discourse: A Multidisciplinary Introduction*. Pompeu Fabra University, Barcelona
- Van Leeuwen, T. (1993). Genre and field in critical discourse analysis: a synopsis. *Discourse & society*, 4(2), 193-223.
- Wodak, R. (2001). The discourse-historical approach. *Methods of critical discourse analysis*, 1, 63-94.

Appendix

Prime Minister's statement on coronavirus (COVID-19): 9 March 2020

This morning I chaired a meeting of the government's COBR emergency committee on the Coronavirus outbreak. The First Ministers of Scotland and Wales and the First Minister and deputy First Minister of Northern Ireland also attended and we agreed to continue to work closely in the weeks and months ahead.

We received a detailed briefing from the Chief Medical Officer and the Chief Scientific Advisor. And again I repeat my gratitude to both Chris and to Patrick. There have now been four deaths from coronavirus in the UK, and our deepest sympathies are obviously with their friends and families.

Our action plan as you know sets out the four phases of our approach to tackling the virus: Contain, Delay, Research, and Mitigate. We remain in the Contain phase of the outbreak, but watching what is happening around the world, our scientists think containment is extremely unlikely to work on its own, and that is why we are making extensive preparations for a move to the delay phase.

We are preparing various actions to slow the spread of this disease in order to reduce the strain it places on the NHS. The more we can delay the peak of the spread to the summer, the better the NHS will be able to manage. Patrick and Chris will give you some more detailed information on the latest advice we are giving the public today - and how we expect that advice to change as the outbreak develops. As things stand I'm afraid it bears repeating that the best thing we can all do is wash our hands for 20 seconds with soap and water. We will also take questions, because I know there are lots of things the public want to hear from our advisors about. But before that I want to stress the following things:

First, we are doing everything we can to combat this outbreak, based on the very latest scientific and medical advice.

Second, we have a truly brilliant NHS, where staff have responded with all the determination, compassion and skill that makes their service so revered across the world. And they will continue to have this government's full support, my support, in tackling this virus on the frontline.

Third, we will set out further steps in the days and weeks ahead to help people protect themselves, their family and in particular the elderly and vulnerable.

And finally, while it is absolutely critical, it's absolutely critical in managing the spread of this virus that we take the right decisions at the right time, based on the latest and best evidence. So we must not do things which have no or limited medical benefit, nor things which could turn out to be counterproductive.

There is no hiding from the fact that the coronavirus outbreak will present significant challenges for the UK, just as it does in other countries. But if we continue to look out for one another, to pull together in a united and national effort, I have no doubt that we can and will rise to that challenge. And I'm now going to ask Patrick and then Chris to give their own perspective on where we are. (529words)

<https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-9-march-2020>

Towards an Advanced Interactive E-learning for the Language

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Abstract

This research aims to create a smart electronic course, which simplifies the information, and reduces the time and effort in acquiring it actively and interactively, with the implicit message that all courses should be updated and improved to a modern ornament that suits the learner's psychology, inclinations, and possibilities. It also meets the needs of this era and the rapid technological revolution. The significance of the study lies in introducing a pioneering and modern experience that adopted interactive e-learning at Al Yamamah University to use it in teaching languages for native speakers and non-native speakers. Therefore, the main question that this study attempts to answer is: How do we match the digital transformation in language education in a procedural and innovative way? The research includes an explanation of the mechanism of cognitive content management in interactive classes, which is based on a long-standing teaching principle of the art of posing questions. Such a course reinforces the ability of e-learning and explains how to create a smart course by focusing on the mechanism of designing interactive classes, submitting assignments electronically in the modern ways, conducting electronic tests with warning of the process of transition to electronic teaching, and defining its advantages compared to traditional teaching.

Keywords: Distance learning; Electronic learning; Interactive learning; Smart courses; University education development

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Introduction

The need to use technology in education has increased, especially after the Corona pandemic (Covid-19) invaded all countries of the world. Currently, it is essential to follow up modern methods of teaching and learning and demonstrate some of their digital teaching methods, considering that the negative rote learning method prevails in teaching languages, does not keep pace with the technical and digital development, and is not based on the understanding learner's psychology, potentials, and innate aptitudes. Ironically, we experience much grumbling and nagging about the nature and characters of this generation and complaints about their limited capacity of understanding, comprehension, and learning, accompanied with our ecstasy of pride and self-esteem upon comparing them to our generations and preceding generations, without bringing ourselves responsible for the shortcomings of education methods we adopt, which we liked and were successful decades ago; thus, we adopted them with the generation which grew up in a different way other than our growing up way. Hence, Dewey. (2019) stated: "When we teach today's students what we learned previously, we deprive them of their tomorrow", No surprise that they do not like what we liked.

The modern era witnesses a paradigm shift in the emergence of smart cities that adopt the latest technology to make people's lives easier, make them happy, and save their time and effort. This study aims to make language learning easier for students to acquire information smoothly with recreation without complication, which, in turn, will be positively reflected on teaching quality and Course Learning Outcomes (CLOs)! (Anis, 2019)

Therefore, the essential question of this paper is: How to apply digital transformation on learning the language in a practical creative way through my experience reality at Al Yamamah University? This research aims to upgrade the methods of learning the Language Acquisition and other sciences acquisition through converting them into smart e-curriculum, enhanced with the interactive self-learning principle, in a way that upgrades the level of the learner from a passive and negative recipient who is waiting for information to reach him in order to memorize without understanding, and he will forget it over a period of time, to an active and positive recipient who searches for the information enthusiastically and generate it to understand it depending on this kind of Interactive E-Courses.

Literature Review

Interactive Courses and Cognitive Content Management

It is worth noting that e-learning does not necessarily mean that it is Interactive, as it may be limited to educational videos, in which the learner is just a negative recipient. Therefore, it is necessary to draw attention to make electronic teaching of language more interactive, which is not attainable by just using the method or technology but also it requires information engineering and redesign it to be appropriate with the new electronic method. Furthermore, the imperative need in this age is to further e- knowledge so that we can employ it effectively (Muhammad, 2018; Zamrani, Zahrani, 2020).

Transitioning to the interactive electronic approach requires a similar change in the methods of presenting the scientific content. After the mediation on e-Learning, and what is related to it of the possibility of communicating with each student separately. The dialogue method based on the art

of question was the reliable one, as it ensured the response of the learner moment by moment to the scientific content, with the least possible possibility of distraction or preoccupation.

Although the interactive electronic approach is new, the question mechanism has a long history, and the most famous one for it is Aristotle, who used it in persuasion (argumentation), furthermore, it is indispensable for any age, and since we have the desire to make our learners enjoy free, independent thinking. Aristotle wanted to make his interlocutors reach reality by answering his questions by themselves. Following this principle, the smart curriculum creates the progressive questions that lead the learner spontaneously with his successive answers to the information and convinces him of it spontaneously and smoothly. Moreover, this principle is what stimulates students to answer and discover information by themselves. For this reason, (Mike Sharples) advises us not to teach students what they can learn by themselves, as he thinks that they can learn better while leading the process of learning (Lencastre, 2019) without being dictated to them information that they receive negatively, ineffective, and unproductively. Especially if we realize the multiple functions that questions perform, foremost among them, the rational function as it helps in brainstorming, furthermore, the cognitive function through which they acquire information (Al-Taai, 2019) and finally the entertaining function that motivates them to learn and knowledge with passion (Abu Aqeel, 2014).

Questions are the source of the principle of interaction, as it awakens the mind and makes it ready to answer, in addition to producing and getting information (AlMawdin, 2004). But these questions are three educational approaches of a very simple nature, and it may be such as information that needs clarification, and makes it easier for the student to answer, the purpose of which is to stimulate the learner's mind and pass on the information and produce it smoothly and easily. Therefore, we emphasize the necessity of avoiding difficult or high levels of questions, because the student will be alienated from the subject material if he found difficult questions that he cannot solve. Hence, the process of interactive self-learning will not come to fruition. Rather, this kind of question is supposed to be generally aimed at the realization of the mind and thought, not testing the information, or at least having the information in a way that prepares him to acquire it easily and gradually, as well as the positive effect of answering the questions that encourage him to follow up in the interactive lecture.

Through the educational questions, the professor of the course can identify both the weaknesses and strengths of students, thus, strengthening their weaknesses, focusing on the aspects that require more attention, and through the detailed report that automatically appears on the website to the course teacher, he can identify the questions about which the students failed to answer, hence focuses on them and paraphrases the piece of information, explains it and simplifies it to ensure that comprehension proportion of all information has reached the highest levels. (See figure one).

The second type of question is the evaluative ones that test and demonstrates the extent to which the student understands the piece of information within the lecture, but this time, without any explanatory information. The questions shall be of a slightly higher level than those of the previous educational ones. As for the third type, it is the test questions that measure student learning outcomes.

The principle of Interactive E-Courses is based on the presentation of preliminary, simplified, and partial information; followed by an educational evaluative fast question on the principles of (Multiple choice), (Matching), (fill in blanks), (True or False); its function is to stimulate the student's intellect to recall the information and apply it directly and practically; the matter that ingrains and instills it in their minds, makes it feel the euphoria of rapid accomplishment also in line with this the psyche of this generation that inclined to rapidness, and can't wait for so long, in this way, we satisfy his needs to the direct feeling of the merits of his efforts.

Simplification of any piece of information relies on fragmenting it into initial components, starting from these little details then gradating to the general idea, in this way, it will be easy for students to chew on the information in association with a continuous evaluation, the result of which shows up moment by moment, which ensures the presence of mind and in the process of self-learning. This is what we aspire for the development of both the intellectual processes and mental judgments for a learner, thereby, enhancing his capability of understanding, comprehension, and open-mindedness, surpassing the old process that is based on memorization and indoctrination only (Sanusi, 2014).

We can manipulate voice, and make some moves of certain kinds of educational videos, achieving attention-attracting audio-visual effects most importantly, is to take an action about the educational content and manage it in a manner that creates Intellectual influences that instigate the mental judgments. (Amrani, 2018)

When student knows that the course teacher can monitor all of his movements, activities, and efforts within the website, he will be more eager to increase the efforts; for the impression to remain positive. The website can precisely show the slightest activity that a student does, such as how many times has a student been briefed on each lecture, by the hour, minute, and second, how much time does he take to do the test whether was educational, evaluative, or test, the degree that he has got after answering each question, and in case he makes any mistakes, the (feedback) shows up to him and explains the reason why his answers are wrong, it also explains the correct answer, he doesn't move from one question to another unless he is acquainted with, has gained, and ingrained the piece of information in his mind, especially if he mistakes it for the first time, thus next time, he will often avoid making the same mistake.

At the end of the students' detailed table of answers; that contains the name, university number, testing time, and the questions that he answered wrong. On pressing on the entry of the wrong answer, the window of the student's wrong answer pops up; to be discussed, and after the students' detailed table of their grades and results; a graph pops up showing visually and simplistically the (average) score and the extent to which it varies (See figures one and two).

Electronic Tests

The basic exams for university students are divided into three types: (Quizzes, Midterms, Finals), and the questions within those exams are (Multiple Choice, Matching, Blanks, True and False). This type of (Alternative Assessment) seeks to rebel against the traditional tests that have always been criticized for:

not measuring the scientific, literary, artistic, abilities of learners, also for lacking objectivity, validity, and reliability, and for not being designed accurate and coherent with the content objectives. It focuses only on deaf memorization and indoctrination, and what can be easily evaluated and taught more than focusing on what a student shall learn, in addition, it's rarely focused on measuring skills and emotional aptitudes, but only the cognitive aspect measurement. (Al-Dhanhani, 2018, p.163)

Therefore, a student has to abandon the memorization only, and has to move to higher levels within learning and understanding in a way provides him with applicability; as it does not only measure his acquisition of the piece of information, as in the traditional questions but it is concerned with testing his ability to self-apply it, as theoretical information is a means as it is supposed to be, not an end.

One of the pros of electronic tests is that it upgrades the education quality and reduce students' feelings of anxiety and tension during the test (Rytkönen, 2019); because it depends on analysis, thinking, and understanding; Students apply what they have learned, while traditional tests rely more on memory (Rytkönen, 2019), that may fail to retrieve the already stored information. furthermore, the students may not be able to remember what he has stored, and this makes him fail in writing it because he forgets a great part of it which becomes an obstacle preventing him to remember the rest of the information. On the other hand, the electronic tests are concentrated on many multiple partial questions that would accurately and objectively measure the student's level of knowledge.

After the students finish the test, the grades are appeared automatically on the website, which enables each student to preview his or her grade as well as the questions he or she answered wrong with correction within his or her account, and there is a possibility to add essay questions. but correcting them is not automatic. it is recommended that the questions shall be varied, and not limited to essay questions that strengthen the faculty of memorization. Yes, but it results in dull thought, a student is concerned only with copying information in a literal manner and then pasting it on a paper seeking for getting the full mark, without leading for creativity, ingenuity, mindfulness, rational judgment, or the approach of information to reality, Which is the most important that the non-essay questions can achieve; this is probably why they have become so widespread lately because of their full objectivity, the inclusiveness of all the vocabulary of the course, and the ability to measure the levels of the cognitive field of recollection, comprehension, and application (Training and Development Unit, 2021).

Electronic Monitoring: These tests are conducted on a mobile phone or in a computer lab, every student log in Learning Management System (LMS) for the language curriculum of the educational institution, once the student clicks on the test file, time starts counting automatically, the student is supposed to answer all the questions before the time up or only the answered questions will be counted. Questions appear in random order among students, which decreases the cheating possibility, teacher of the course can control the setting to show the result directly after each question with a pop-up message that shows the correct answer if the student makes a mistake, with visual effects (Smileys Symbols) in proportion to the age group of the student, some of which are encouraging when the student chooses a correct answer and some others are sympathetic when the

student chooses the wrong answer. It is worth noting that such effects left a nice effect on the learner (Alruwais, 2018), making him accept his mistakes without resentment and aims to correct them.

The course teacher can follow the test progress on his mobile phone screen, through a table that includes the students' names and enrollment numbers, if he found any student violates the test conditions by, for example, testing from outside the classroom or trying to cheat, the teacher can directly cancel the test for that student, he can also know the slow student to urge him to be fast in answering so he won't miss the time. This table monitors moment by moment students' performance to answer questions, in the last row of the table there is an average percentage of student performance per question (See figure 1).

Ensuring the quality of university exams gives a positive impression of the smooth progress of the educational process during the whole academic year. Therefore, educational institutions, whether universities or schools, aspire to achieve the highest levels of professionalism in exams.

Renovation and converting from paper tests to online tests have serious caveats that teachers should be aware of and consider before embarking on this type of test¹, including, the ease of students moving from the test tab to other tabs, ability to take a screenshot when the test is in the mobile phone, but they are manageable and avoidable matters, by alerting students with the necessity of putting their phones on the table and not to touch it with hands, in such a way, screens will be exposed for the observer, and fortunately, there are modern apps such as (App Store preview), but they are only available on (iOS devices), got over such a problem in their settings, so the student cannot leave the test tab or take a screenshot. There is an ability to add an online cheating detection feature in (Online and Computerized Exams) website, which enhances the electronic monitoring, and the teacher becomes able to observe students from his mobile phone without the trouble of tracking students and following their phone screens.

Electronic Assignment

As Virtual Learning Environments (VLEs) become widespread and accessible, it became a necessity to activate and use them to develop the learning process (Abou Saif, 2019). but some may think that this type of electronic homework is disproportionate to the language course that requires handwriting to improve it. However, there is no conflict between the two, the student can write the homework manually and then photograph it and upload it as an electronic copy on the site, so the student does not have to bring a paper homework and the teacher relieves from the burden of carrying the paper homework in each session but all will be saved on the website with the ability to load them into external files for further preservation. The teacher also can record grades on the website to be available for him and the student can return for them to revise his mistakes and the important notes, while that is not available for him with paper homework that usually remains with the teacher, aside from the possibility of losing the paper homework after delivery regardless the reason or the student though that he delivered the homework when he did not, so the website is a reference that cannot make mistakes.

A Practical Example of the Art of Listening: Its purpose is to guide young people to this new and unique type of knowledge acquisition through electronic listening, as possibilities of listening

are more available than possibilities of reading, one can listen while walking, before sleeping or while enjoying watching the natural, etc.

Reading without language knowledge may expose students to make some linguistic mistakes. While listening to a proper language strengthens eloquence for students, so they can later speak with proper standard language as a result of proper eloquence formed by listening, the way our ancient ancestors mastered it through listening. This homework aims to develop different skills for students, which are: Listening, writing, reading, and speaking.

Mechanism: The students are instructed towards a group of smartphone applications and websites that include (audiobooks). Each student will be tasked to listen to an audiobook that is at least eight hours long, then summarize the content of the audiobook within five pages, provided that the summary is handwritten exclusively typed. The student must ensure linguistic integrity while following the instructions and provisions of calligraphy. After finishing the summary, the student shall read and voice record his/her summary to ensure the integrity of his/her pronunciation and articulation of sounds, then the student shall download the voice record on the website to be evaluated and to make notes according to it, which will be available for the student to view so he/she can overcome and avoid any issues. The student also must upload an electronic version of his summary on the website for review as well. When the deadline of task is due, the website is automatically shut down, and any student, who is late for submitting his/her task, won't be able to upload the summary and voice records on the website unless the professor extends the deadline for specific reasons he/she decides.

The interactive side of the task includes a conversation around it on the website through chatting or a WhatsApp group to make the students interact and communicate with each other and the professor. The students inquire and share their different points of view, as these unique online tasks inspire students with enthusiasm and motivate their competitive spirits to make them do the best they can, thus making them benefit from this on a large scale.

Method

The Methodology is the deductive method, starting from studying an effective model for teaching mechanisms of the language in an interactive electronic way and ending with developing a comprehensive and integrated final perspective. The researcher depended on several methods: my electronic classes which contain more than 300 students every semester, using all capabilities of LMS, reading the most important references about this topic, watching the modern videos about distance exams.

Participants

The Major sample of the study is the students of both genders from Al Yamamah University, numbered about 600 students over the year 2020-2021. The students speak Arabic, while being unspecialized in Arabic language study. Students who are speakers of other languages than Arabic are added to the sample, numbered twenty students. The research instruments were the Non-Directive Interview with some fellow teachers who enriched the research by their views, thoughts and experience, as well as several electronic tests and assignments for students.

Findings

Previous studies are affected by their limitation to theorizing without implementation, as they lack practical live experiences that pave the way for those who are willing to develop their methods using technology, like those who complain about the failure in moving towards e-learning and call for overcoming without suggesting practical steps for such transformation. Therefore, the previous studies predominantly use a descriptive method in defining the problem (What), and causes of the problem (Why), but it does not go beyond that to tackle answering the most significant question (How). The scientific study that does not fulfill to answer these questions (What, Why, How) are considered incomplete and unproductive in a sufficient way.

We were impressed by the character of the dignified, sober, knowledge-abundant, quiet-talking teacher who had the ability to speak for one or two consecutive hours, self-proud for his richness of cognition and extensive knowledge. Nevertheless, many of this generation believe that this is babble leading them to boredom!

Some teachers may turn a blind eye to innovation and the use of technology because they do not put in an effort while using the traditional method they used for many years. Furthermore, they refuse to get out of the comfort zone that they used to. Hence, this is the conservative reaction to this kind of contemporary teaching, as People fear what they are ignorant of. It is human nature to concentrate on what they know and what they had to experience. The role of the educational institutions is to establish training courses that increase awareness of the importance of activating electronic capabilities and qualifying faculty members to make them easy for them to use. (Hafidhi, Abbasi, 2021)

Some of them suppose that the technology will play the role of the teacher. But this doesn't make any sense and is unreasonable for many reasons, the most significant of which is that preparing this kind of Interactive E-Courses will take much longer time than the traditional courses. Although learners may feel comfortable with it later, the role of the teacher is necessary and indispensable, but this time as a guide, instructor, and supervisor, not just a teacher (Halima, 2018; Sanusi, 2014). On the other hand, this curriculum cannot do anything without the teacher because it requires development and changing such as canceling, adding, and simplifying part of the curriculum in a way that keeps pace with ongoing technical developments.

It is no longer exaggeration to state the shocking and regrettable fact, of no without benefit, that time of using paper - which we were pleased and satisfied to touch, preferred better than anything and in which we found gratification - has gone to be replaced by today's generation which prefers touching smart devices rather than paper, feeling excited and enjoying. Driven by these needs and new trends of today's generation, we are obliged and required to digital transformation appropriate for them. It does not harm to do this as long as "The whole matter and the aim to which the speaker and the listener proceed is only understanding and explanation. Thus, when you reached understanding and clarifying the meaning of anything, this is the statement and declaration of this thing" (Al-Jahiz, 1926, p56). Therefore, the interconnection between both teacher and learner, whatever named, (speaker and listener, questioner and responder, sender and receiver ...), derives its significance through its ability to "explain", by which the educational aim is realized.

Discussion

This experience of interactive e-teaching of the Arabic language indicates the many advantages compared to traditional teaching, such as being suitable for the nature of this generation for having visual and auditory effects, which make it easier for the student to acquire information, save effort and time and make him feel excited during educational attainment using smart devices. In addition, they facilitate identifying strengths and weaknesses to overcome them and achieve optimal Course Learning Outcomes (CLOs).

In terms of electronic exams, it was indicated that the feeling of anxiety and stress usual for students became lower than in traditional exams and that the level of understanding and analysis became increased in addition to reducing disadvantages of memorizing and rote learning. Monitoring also differed compared to the past, as tests are conducted on smart devices, which created the concept of electronic monitoring. The professor can control students' exams from his private laptop, in addition to monitoring their screens presented on his device, while sitting before his table. Furthermore, there is the ability to present the exam and the student will be unable to exit it to browse another window or use the internet, or even take a (screenshot) if using the mobile.

Conclusion

This research aimed to create a smart electronic course, which simplifies the information, and reduces the time and effort in acquiring it actively and interactively, with the implicit message that all courses should be updated and improved to a modern ornament that suits the learner's psychology, inclinations, and possibilities. Driven by the pilot live experience in Al-Yamamah University to teach language in an interactive electronic method, the research concludes that The process of transformation from traditional education to interactive e-learning requires the teacher to be provided with technological knowledge to empower him to prepare classes and information architecture and to harmoniously manage them, which enhances the principle of interactive self-learning for students.

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References

- Abou Saif, S. (2019). *Teaching Arabic to non-native speakers "from a distance" - reality and hope*, Amman, Jourdan. Retrieved from <https://www.academia.edu/43263671>
- Abu Aqeel, I. (2014). Reality of e-learning and obstacles of implementing it in university education as perceived by students of Hebron University, *Palestine University Journal*, 7(7), 451-474.
- Anis, A. (2019). *The development of interactive multimedia accompanying the teaching of the Arabic language at the secondary level*, (Master's thesis), University Islam Negeri Sunan Ampel Surabaya Perpustakaan, Surabaya. Retrieved from <http://digilib.uinsby.ac.id/30831/>

- Amrani, Z. (2018). The reality of the employment of technology on Arabic language Teaching. *The Sixth International Conference on the Arabic Language*, 116.
- Al-Dhanhani, M. (2018). Future reflections on Arabic language Teaching. *The Seventh International Conference on the Arabic Language*, 163.
- Eiadat, Y. (2006). *The educational computer and its educational applications*. Amman: Dar Al Masirah for Publishing.
- Hafidhi, S. Abbasi, Y. (2021). The shift towards e-learning to activate the educational position in light of the Corona crisis, *Journal of Human and Society sciences*, 1(10) 76.
- Halima, M. (2018). The technology of teaching Arabic, reality and hope. *The Sixth International Conference on the Arabic Language*, 70.
- Al-Jahiz, O. (1926). *Bayān wa-al-tabyīn* (1st ed.). Egypt: Grand Commercial Press.
- Lencastre, J. (2019). *Exploring new forms of teaching, learning, and assessing in an interactive world*. Portugal: University of Minho.
- Al-Mawdin, H. (2004). The Most Important Argumentation Theories in Western Traditions. *Gethour Magazine*, 18(8), 80.
- Muhammad, S. (2018). Modern technologies and advanced educational means that contribute to the development of teaching the Arabic language in a sound manner. *The seventh International Conference on the Arabic Language*, include the page numbers, 178.
- Al-ruwais, N. (2018). Advantages and Challenges of Using E-assessment. *International Journal of Information and Education Technology*, 8(1), 35.
- Rytkonen, A. (2019). Student Experiences on Taking Electronic Exams at the University of Helsinki. *Educational Technology Centre*, 1-6. Retrieved from <https://core.ac.uk/download/pdf/33738352.pdf>
- Sanusi, H. (2014). *Multi-media in education between employment and abstinence*. Algeria: The Abdelhamid Ben Badis University.
- Al-Taai, N. (2019). The theory and question of Michel Meyer: approach in: Assets, foundations and representations. *Basic Education College Magazine for Educational and Humanities Sciences*, 13.
- Al-Tarfi, A. (2018). The impact of technologies on the advancement of Arabic language education: goals, challenges, and solutions. *The Seventh International Conference on the Arabic Language*, 213.
- Thany, S. (2018). Modern technologies and advanced educational means that contribute to the development of teaching the Arabic language in a sound manner. *The Seventh International Conference on the Arabic Language*, 225.
- User's manual for electronic testing systems, (2021). King Abdulaziz University, Jeddah.
- Zamrani, M. Al-Zahrani, S. (2020). E-learning at the Moroccan University, elements of its success and obstacles of use it, *The Arab Journal of Education*, 71. Retrieved from http://search.shamaa.org/PDF/Articles/TIAej/AjeVol39No1Y2020/aje_2020-v39-n1_049-076.pdf

Appendexes

Electronic Exams

	NAWAF ALSUQAIR Review attempt	201821403@yu.edu.sa	Finished	26 June 2019 10:54 AM	26 June 2019 10:58 AM	3 mins 52 secs	0.80	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10
	RAGHAD ALSAYYAD Review attempt	201812120@yu.edu.sa	Finished	26 June 2019 11:04 AM	26 June 2019 11:08 AM	3 mins 35 secs	0.90	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10
	YARA ALMURAIKHI Review attempt	201712020@yu.edu.sa	Finished	26 June 2019 11:11 AM	26 June 2019 11:15 AM	3 mins 26 secs	1.00	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10
	KHALID ALREZOUQ Review attempt	201811335@yu.edu.sa	Finished	1 July 2019 1:53 AM	1 July 2019 1:56 AM	3 mins 35 secs	0.80	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10
	Bader Abboud Review attempt	201721324@yu.edu.sa	Finished	1 July 2019 11:07 AM	1 July 2019 11:10 AM	3 mins 16 secs	0.90	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10
	Bader Abboud Review attempt		Finished	1 July 2019 11:13 AM	1 July 2019 11:15 AM	2 mins 6 secs	1.00	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10
	LAMA ALAYEDH Review	201612059@yu.edu.sa	Finished	2 July 2019 12:18	2 July 2019 12:22 AM	4 mins 16	0.90	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✗ 0.00	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10	✓ 0.10

Figure 1. Report of Exam

Overall number of students achieving grade ranges

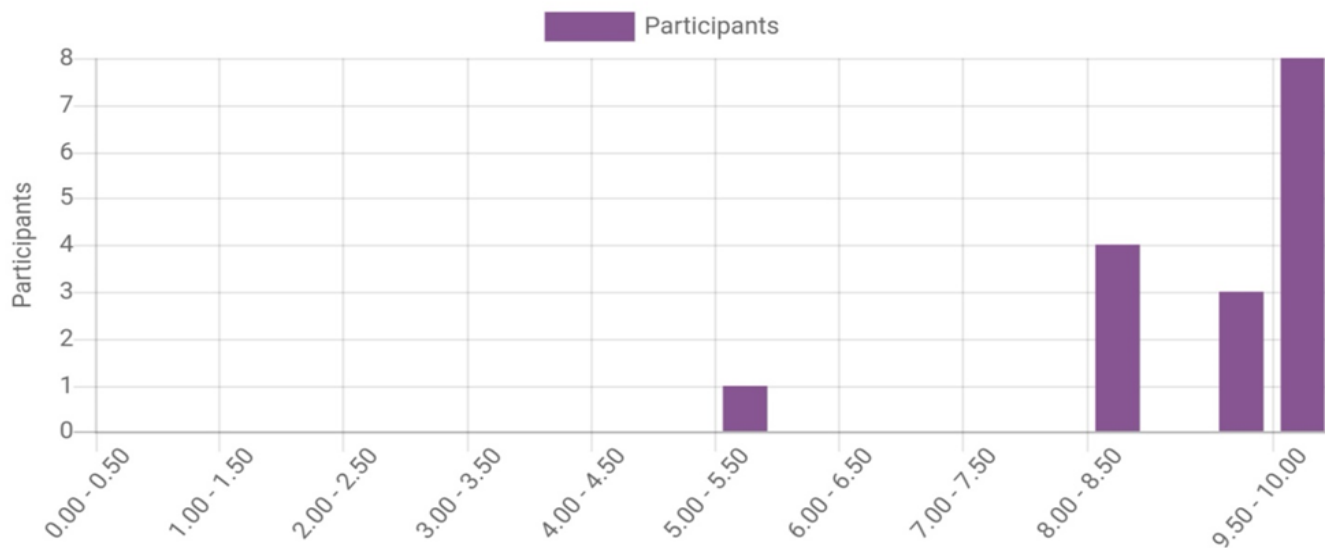


Figure 2. Grade Ranges