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Click or *Chalk*: Comparing EFL Reading Outcomes in Saudi Education

Abstract

The swift transition to online learning platforms has sparked debates on the comparative efficacy of virtual environments in contrast to traditional face-to-face classroom settings, particularly in areas where in-person education has been the customary practice. This study examines the influence of these two modes of learning on the reading comprehension of English as a Foreign Language (EFL) students at Northern Border University in Saudi Arabia. The research comprised a group of 35 female undergraduate English majors, aged 18–24, who successfully finished the "Reading Course 2," either using an online platform or in a conventional classroom environment. The research utilized a post-test for reading comprehension and conducted in-depth interviews to evaluate student perspectives. The findings revealed that there were no notable disparities in academic performance between the two groups. Nevertheless, the majority of students expressed a strong preference for in-person instruction, emphasizing the importance of direct teacher involvement and active participation with their peers. They stated that these factors significantly improved their learning experience and motivation. The findings suggest that although online learning can achieve similar academic achievements as traditional approaches, enhancing virtual engagement and interpersonal relationships is essential for attaining greater student happiness and emulating the comprehensive advantages of in-person education.

Keywords: online learning, reading comprehension, traditional learning, education technology

In recent years, the worldwide education sector has experienced substantial changes due to various circumstances, including the COVID-19 pandemic, rapid technological progress, and the increased integration of digital technologies in

education. Saudi Arabia, specifically, has not been immune to these changes. The country's Vision 2030 emphasizes the importance of educational technology and online learning in diversifying and boosting the nation's economy. This vision has resulted in significant expenditures on technical infrastructure, the creation of digital curricula, and the improvement of instructors' skills in digital teaching methods. Moreover, it facilitates online education by implementing virtual classrooms, extending the availability of Massive Open Online Courses (MOOCs), and collaborating with international technology companies.

The COVID-19 pandemic expedited the move towards online learning, necessitating a swift transfer from traditional in-person teaching to digital platforms. This transition presented a distinctive chance to assess and contrast the effectiveness of these various instructional approaches. Traditionally, in-person learning has been the prevailing method of education. Nevertheless, the increased dependence on online learning platforms in Saudi Arabia due to the pandemic introduced educators and students to a novel learning paradigm. There is a growing need to evaluate the efficacy of online and traditional in-class learning environments, especially in the field of English as a Foreign Language (EFL) instruction. This assessment aims to understand the effects, difficulties, and advantages of these environments on educational outcomes.

Online learning is becoming a common necessity in many educational institutions globally, acting as a crucial test of its efficiency and impact on learning outcomes. Kerres and Buchner's (2022) research has examined the pandemic's effects on educational methodologies and the potential consequences for educational technology advancement. Their research emphasizes the crucial role that digital technologies play in maintaining educational continuity while simultaneously acknowledging the difficulties in assessing their direct influence on learning outcomes. The authors contend that evaluations of these impacts must take into account the varied institutional, cultural, and national contexts. They propose two potential paths for education after the crisis: one that aims to return to the norms that existed before the crisis, and another that uses recent experiences to bring about substantial educational changes. Studies have also investigated the worth of online education for both learners and educators. In their study, Singh and Meena (2023) investigated the disparity between the anticipated and realized advantages of virtual classrooms for staff members and students in higher education during the pandemic. Their findings suggest that both groups had inflated expectations compared to the real benefits they received. However, the presence of a supportive learning environment with fewer hindrances enabled them to derive greater advantages from virtual classrooms. Nevertheless, substantial obstacles persist, including issues with network connectivity, the absence of suitable professional contexts, and insufficient training resources.

Conversely, alternative research has emphasized the disadvantages of virtual learning, especially when it is hastily deployed as a temporary solution rather than a carefully executed transition to online education. Researchers have identified digital competence among learners, the integration of digital skills, and the efficiency of online assessments as areas for improvement. However, there is evidence from research that supports the efficacy of online learning. Studies have shown that virtual classrooms can provide similar or even better academic results compared to traditional in-person teaching, given specific circumstances.

Related Literature

Researchers have conducted numerous studies to evaluate the effectiveness of online learning for both learners and instructors. Singh and Meena (2023) analyze the gap between the expected and actual benefits of virtual classrooms during the COVID-19 pandemic for faculty members and students in higher education. They found that both groups had higher expectations of the benefits they would receive from virtual classrooms compared to the actual benefits they experienced. Moreover, the study found that a more favorable and supportive learning environment with fewer obstacles allowed faculty members and students to experience greater benefits from the virtual classroom experience than initially anticipated. For faculty members, the major challenges included network connectivity, followed by a lack of a professional environment, teaching materials, and personal computers. Among students, the lack of a professional environment and teaching materials at home were the major challenges, along with network connectivity and the need for personal computers or laptops. Furthermore, Forbes et al. (2023) identified communication and engagement as significant areas requiring attention and improvement for students regarding online learning.

One of the disadvantages of virtual learning is that it started as a crisis-response transition, best understood as emergency remote teaching, rather than a comprehensive shift to effective online education. There is a significant need for digital competence among learners, as well as the integration of digital skills into the teaching and learning process (Adedoyin & Soykan, 2023; Mabrook & Mabrook, 2020). Badia Hakim (2020) underscores the significant challenges that EFL teachers in Saudi Arabia encounter with technology integration, including inadequate resources and low student engagement. Saleh and Meccawy (2022) identify that the paramount obstacle encountered by English as a Foreign Language (EFL) instructors within online educational settings is student-centric—encompassing issues of participation, motivation, academic integrity during assessments, and a lack of student accountability in their

learning journey. Motivation is a significant factor in this study, as many studies confirm a strong correlation between motivation and reading comprehension (Alenizi, 2019; Brozko, Shiel, & Topping, 2008; Wigfield et al., 2008; Chiu & McBride-Chang, 2006).

Online assessment has its concerns, with teachers doubting its effectiveness (Abduh, 2021; Momeni, 2022). Mabrook (2020) found several drawbacks to distance learning. The majority of students during exams used more than one device to look for answers to the questions, and a high percentage of participants admitted to copying answers during the exam. As a result of inadequate control over final exams, there was a clear inflation in online students' grades. However, many studies support and prove the efficacy of online learning. According to Al-Nuaim (2012), the implementation of virtual classrooms in an e-learning program at King Abdulaziz University in Saudi Arabia did not yield any significant differences in the academic performance of online students when compared to face-to-face students enrolled in the same courses and taught by the same instructors. Furthermore, because of the various difficulties EFL students have encountered during the pandemic, they hold different perspectives on online learning. Hezam and Mahyoub (2022) found that EFL Saudi students have positive attitudes towards online learning, although they faced difficulties adapting to this mode. Conversely, Al-Nofaie (2020) suggested that many students preferred in-class learning, despite showing high levels of motivation during online classes. Some students indicated that home environments are distracting. Additionally, students strongly preferred in-class learning because online learning lacks physical interaction. Similarly, during the COVID-19 pandemic, students had problems adapting to online English lessons and could not forego traditional classes (Marsudi, 2021).

Reading skills have always been a major challenge to Saudi second language learners (Alkhaleefah, 2023; Ahmed & Ahmed, 2023; Alotaibi, 2022). Alkhaleefah (2017) highlights the reading challenges faced by Saudi EFL learners, revealing significant weaknesses in their reading skills. The study employed a think-aloud method and involved four male EFL students—categorized as two proficient readers and two poor readers—who read narrative and expository texts. The findings indicated that both groups encountered substantial difficulties, particularly with unknown vocabulary and complex text structures. Poor readers, in particular, demonstrated limited metacognitive awareness and struggled to effectively employ reading strategies, often failing to use context clues or verify their guesses about unknown words. These students tended to rely more heavily on dictionaries and exhibited less effective problem-solving skills compared to their more proficient peers. This lack of strategic processing highlights a critical weakness in their ability to comprehend and engage with English texts, underscoring the need for targeted interventions to enhance reading skills and strategic processing among Saudi EFL learners (Alkhaleefah, 2017).

However, during the pandemic, Saudi EFL university students reported positive perceptions about the use of e-learning sessions to improve reading comprehension skills. We have confirmed that these online sessions are suitable for employing reading strategies, and they report increased motivation and an environment conducive to independent learning. Female students expressed higher satisfaction with e-learning compared to male students (Alhumsi et al., 2021). Moreover, Oraif and Elyas (2021) conducted a study to examine the level of engagement exhibited by EFL learners in online courses using a designated school platform in Saudi Arabia. The participants consisted of 379 female high school EFL students. The findings indicated that the learners demonstrated a considerable degree of engagement in terms of participation and interaction in the online courses, leading to their overall satisfaction with the experience of attending English classes. Furthermore, the results revealed a notable level of emotional engagement among the students within the online classroom environment. Akbari et al. (2021) aimed to investigate the effectiveness of virtual teaching in improving the reading comprehension skills of Iranian undergraduate EFL students. They compared three groups: a control group taught using traditional methods, a virtual group taught through web-based technologies, and a blended group that used a combination of traditional and innovative methods. The results showed that the virtual group, which received instruction through web-based technologies, exhibited significant improvement in reading comprehension compared to the other two groups. The findings suggest that virtual teaching can be a valuable approach to enhancing reading comprehension skills in EFL university students, providing opportunities for interactive learning, and overcoming geographical barriers. In the same vein, Patra et al. (2022) demonstrated that e-learning significantly improved reading comprehension and motivation in Iranian EFL learners over traditional teaching methods, emphasizing the integration of e-learning in EFL instruction. Moreover, Al-Jarf (2019, 2021) found that using an online reading course from home as a supplement to in-class reading instruction helped enhance EFL students' reading skills in English. Furthermore, integrating graded reading websites and applications into learning environments can improve students' reading comprehension skills (Alghizzi & Elyas, 2022).

The need to compare online outcomes to traditional class outcomes is crucial to fill the gap by examining the differences in performance in both settings. Therefore, the goal of this study is to examine the efficacy of online learning and compare its outcomes with face-to-face learning. This study seeks to answer the following questions:

a) Are there significant differences between the performance of EFL Saudi students in online learning mode and face-to-face learning mode?
b) What are the most significant differences between online and face-to-face learning?

Methodology

The study adopted a mixed-methods research design, integrating both quantitative and qualitative approaches to obtain a comprehensive understanding of the educational outcomes for students studying a reading course online versus face-to-face. The course "Interaction 2" by Pamela Hartmann and Elaine Kirn, with the Teacher's Edition by Carol Pineiro (Silver Edition), was taught during the Fall 2021 semester. The course was methodically structured to enhance students' reading comprehension and analytical skills. It consisted of two 50-minute lectures per week, spanning 16 weeks. Throughout the semester, chapters 1 to 8 were covered. The content was classified into three primary domains:

a) Breaking Down Long Paragraphs: Students were taught to break down complex paragraphs into manageable sections by identifying topic sentences, supporting details, and conclusions. Students achieved this through annotation exercises, where they highlighted or underlined key parts of the text and summarized each section in their own words.
b) Focused Vocabulary and Contextual Clues: The course emphasized understanding challenging vocabulary within the context of paragraphs. Before providing definitions, the course encouraged students to infer meanings using contextual clues. Activities included matching words to definitions and using vocabulary in new sentences, thereby improving both phrases and comprehension.
c) Interactive Discussions and Analysis: Group discussions played a crucial role, where students analyzed paragraph content and structure. We guided them to ask questions, share interpretations, and engage in critical thinking, fostering a collaborative learning environment that enriched their understanding of the text.

This study employed a combination of online and in-person approaches to teach the course in reading comprehension (Sample Lesson Plan, Appendix 1). The online cohort interacted with the course content using a *Blackboard* Learning Management System (LMS), which allowed for both real-time and self-paced learning. The teacher and students interacted immediately during synchronous sessions through video conferencing. Asynchronous components consisted of self-paced activities, such as reviewing courses, finishing assignments, and engaging in discussion forums. The digital platform also included automatic tests and assignments that delivered instant feedback, enabling students to track their progress. The teacher taught the in-person group in a conventional classroom environment, providing direct instruction, prompt feedback, and on-the-spot adaptations based on the students' needs. The classroom exercises focused on deconstructing lengthy paragraphs, comprehending language using contextual hints, and participating in critical analysis, analogous to the online version, but

with greater impromptu and dynamic interactions. Both instructional methods followed the same curriculum and learning objectives, guaranteeing uniformity in educational content. The study later evaluated the efficiency of these two approaches in improving students' reading comprehension and analytical abilities.

First, the quantitative component of the research utilized a post-test-only design. The online group took the test during the spring semester of 2023. Both the online and face-to-face groups had completed the course a year before allowing us to explore the long-term effects of both approaches on their learning outcomes and perceptions. This timeframe ensures that our data reflects the sustained impact of online and face-to-face learning environments, particularly in the context of the pandemic and its aftermath. The "Reading Course 2" uses the Interaction educational syllabus, specifically the "Interaction 2 Reading" edition. Through a mix of different text types and engaging activities, this syllabus aims to enhance students' reading comprehension and analytical skills. It focuses on enhancing critical thinking and interpretation by helping students identify important details, derive meaning from context through examples, opposites, and connecting words, and understand context through punctuation, other sentences, and logic. Additionally, it aims to develop synthesis skills by teaching students to identify words and phrases that work together. The thematic units organize the content, covering a wide array of subjects and ensuring a comprehensive approach to reading and analytical skills development. The structured teaching method not only enhances students' comprehension and maintains their engagement, but also ensures uniform instruction for both study groups under the guidance of the same instructor. The study involved two distinct groups of students: one group engaged in the course online, while the other experienced the same curriculum through traditional face-to-face instruction. We then statistically compared the results from the two groups to see if the mode of instruction caused any significant differences in reading comprehension outcomes.

Second, we implemented a qualitative approach through in-depth interviews to complement the quantitative data. We selected participants from both the online and face-to-face groups using a purposive sampling technique to ensure a diverse representation of experiences. These interviews aimed to delve into the participants' subjective experiences, perceptions, and attitudes towards their respective reading courses.

Participants

The study involved 35 female undergraduate students majoring in English at Northern Border University's Rafha campus. All participants were aged between 18–24 and were selected based on the criterion that they had completed

"Reading Course 2" either after or during the COVID-19 pandemic. Each participant had studied and passed "Reading Course 2." The researchers set specific criteria for participant selection, particularly for the online group, which justified the constrained sample size in the study. They exclusively selected students who had taken "Reading Course 2" online during the pandemic—a period when they could not attend campus or meet instructors face-to-face. Under normal circumstances, where online learning typically intersperses face-to-face interactions, this period served as an invaluable natural experiment, offering insights that might not have been as readily observable. The results from this period thus provide a robust basis for comparing the online approach to traditional in-person education, free from the confounding variables that typically accompany hybrid learning models. This criterion was essential for evaluating the efficacy of online learning under conditions where traditional face-to-face interactions were not possible. Additionally, the overall small number of participants can be attributed to selecting students from the same academic level, to effectively control variables. Some of these students took the reading course online during the pandemic, while others enrolled in it face-to-face post-pandemic, creating a naturally limited pool of participants fitting these specific conditions. This intentional restriction made it possible to more accurately attribute any variations in reading comprehension outcomes to the mode of instruction, rather than variations in academic preparedness or ability.

Because Saudi Arabian educational practices fully segregate classes by gender, the study exclusively involved female participants. This gender-specific participant selection was critical to controlling for variables related to teaching practices and instructor efficacy. Having one instructor for both the online and face-to-face groups ensured that the teaching methodology remained consistent across both study settings. This uniformity was critical in minimizing variations that could arise from different instructional styles or interactions, which otherwise skew the results and allowed the research to focus solely on the impact of the learning environment—online versus face-to-face—without the confounding influence of varying instructor characteristics.

Instruments

The study utilized two instruments to gather data. Students who took the "Reading Course 2" both online and in-person received the first instrument, a pre-test. The test assesses students' reading comprehension skills and aligns with the course objectives. It included an upper-intermediate English reading passage and four questions, each of which targeted specific reading objectives. The first and second questions utilized multiple-choice formats to evaluate students' mastery of deriving meaning from context. The third question

summarized the passage and required students to fill in the gaps with provided words, thereby assessing their ability to identify cohesive words and phrases. The fourth question asked students to match given statements to the corresponding paragraphs in which they appeared, testing their ability to identify important details within the text. Collectively, these questions comprehensively evaluate the students' reading comprehension skills at an upper-intermediate English level. We divided the participants into two groups: the first group included 17 students who face-to-face studied the "Reading Course 2" following the COVID-19 outbreak. The second group consisted of 18 students who studied the "Reading Course 2" virtually during the pandemic. Both groups were then given a post-test directly related to the course content to evaluate the effectiveness of the mode of instruction they received. We designed the tests to be comparable, based on the "Reading Course 2" syllabus. We revised the test to ensure its validity after conducting a pilot test with a different group of students from the same university. We excluded this pilot group from the main study to detect any shortcomings in the research design.

The second instrument was an in-depth interview with participants from both groups to explore their perceptions of online versus face-to-face learning. The interviews featured open-ended questions centered on their experiences during the COVID-19 pandemic and their comparison of online learning to traditional classroom settings. Regarding the interview protocol, the researchers conducted in-depth interviews with four students from each group who volunteered to participate. The primary questions asked were:

a) What are the best advantages you have found in online learning or face-to-face learning in the reading courses?
b) Do you think that online learning or face-to-face learning motivated you in the reading course?

However, to gather more comprehensive data, we also included several follow-up sub-questions based on participants' responses to extract more detailed and related information. These sub-questions included:

a) What recurring themes and patterns emerge from the students' interview responses regarding their experiences with online and face-to-face learning environments?
b) How do significant statements in the interview transcripts relate to the research questions?
c) What overarching themes emerge from the coded data, and how do these themes shed light on how students perceive both online and face-to-face learning?
d) How does the thematic analysis contribute to understanding the differences in student experiences between online and face-to-face learning environments?

For the qualitative data analysis, we employed thematic analysis to identify recurring themes and patterns within the interview responses. To ensure accuracy,

the coding procedure included transcription of all interviews. We then conducted open coding on the transcripts, generating codes based on significant statements related to the research questions. Finally, the researchers reviewed the categories and identified overarching themes that emerged from the data. The researchers then analyzed these themes to derive significant insights and conclusions. This detailed approach to the interview protocol and qualitative data analysis ensures the study's transparency and reproducibility, providing a comprehensive understanding of the students' perceptions and experiences with online and face-to-face learning environments.

Data Collection and Procedure

Throughout this investigation, we meticulously considered ethical considerations to ensure the protection and welfare of all participants. We thoroughly briefed participants on the study's objective and assured them that their involvement was optional before the test began. Each participant provided informed permission, indicating their understanding of the study's purpose and their right to withdraw without facing any adverse repercussions. We conducted the tests anonymously to avoid any potential anxiety or discomfort, ensuring that individual replies could not be associated with specific individuals. This method not only protected the participants' privacy and confidentiality but also alleviated any potential stress stemming from concerns about recognition. We conducted the testing of both groups simultaneously in a controlled setting to ensure impartial treatment of all participants and to eliminate any potential biases or external factors that could skew the results. Moreover, the study excluded participants who had completed the "Reading Course 2" in a hybrid format. We decided to exclude certain participants after careful deliberation, ensuring a transparent and equitable comparison between the fully online and face-to-face educational methods. We effectively communicated the decision to remove these participants, gaining their comprehension and consent in advance.

Results and Discussion

Reliability Analyses

First, Cronbach's Alpha and McDonald's Omega indices were calculated for the total sum of the items. These data will allow us to determine whether or not the two primary item dimensions used are consistent and reliable. Table 1

reveals values for alpha and omega exceeding the .70 threshold, a cut-off point widely acknowledged by the scientific community (e.g., McDonald, 1999; Tavakol & Dennick, 2011). Therefore, the internal consistency and reliability of the items in both dimensions are satisfactory and suitable for bolstering the results obtained in the previous analyses.

Table 1

Summary of the Reliability Analyses

		Online teaching (N = 18)	In-class teaching (N = 17)	Total sample (N = 35)
Total sum	Cronbach's Alpha	.734	.725	.722
	McDonald's Omega	.777	.752	.795

Normality Tests

Under the following hypothesis, we used the Shapiro-Wilk test to analyze the sample's normal distribution, as advised in the literature (e.g., Hanusz et al., 2016), when dealing with 50 or fewer participants:

H0: There are no significant differences between the normal distribution and the sample distribution (p >.05).

H1: There are significant differences between the normal distribution and the distribution of the sample (p < .05)

As shown in Table 2, the Shapiro-Wilk test revealed that the vast majority of items were not adjusted to the normal distribution, except for i02, which was the unique item adjusted to the normal distribution. That is why in the next heading, means differences were performed using in the case of non-normal items Mann-Whitney's U and for the normal item Student's t-test.

Table 2

Shapiro-Wilk's Test Results

	SW value [A1]	*P*
I01	.882	.001
I02	.949	.107
I03	.806	< .001[A2]
I04	.845	< .001
Total sum	.920	.014

Means Differences

As previously mentioned, we conducted the non-parametric Mann-Whitney U test on items 1, 3, 4, and the total score because they did not meet the normality assumption. We also performed the parametric independent samples Student's t-test on item 2, as it was the only item that satisfied the normality condition.

For both cases, the initial hypotheses were:

H0: There are no significant differences between the online teaching method and the in-class teaching method ($p > .05$)

H1: There are significant differences between the online teaching method and the in-class teaching method ($p < .05$)

As observed in Table 3, there were no statistically significant differences in any of the analyzed items, nor in the overall item scores. Thus, with this study's sample, participants' scores were statistically similar regardless of group.

Table 3

Means Differences Results

	Online teaching (N = 18)		In-class teaching (N = 17)		p
	Mean	SD[A3]	Mean	SD	
I01	3.61	.777	3.41	1.12	.807
I02	3.66	1.68	3.05	1.51	.271[A4]
I03	4.27	3.76	2.64	2.69	.273
I04	3.16	1.75	3.41	1.27	.883
Total sum	14.72	6.78	12.52	5.22	.483

Discussion

The current research study examines the outcomes of online and traditional learning modalities with respect to academic achievement. The unexpected advent of the COVID-19 pandemic created a unique opportunity to evaluate the effectiveness of virtual learning environments compared with conventional classroom settings. Regarding the first research question, the results revealed no statistically significant differences in reading comprehension outcomes between online and face-to-face learning formats. The data suggest that students who participated in online classes during the pandemic achieved comparable levels of reading comprehension to those who engaged in traditional in-person classes. However, caution should be exercise when generalizing these findings beyond the studied sample due to the relatively small participant group.

The research aligns with studies suggesting that students' anticipated benefits from virtual classrooms were greater than the actual advantages realized (Singh & Meena, 2023). Moreover, the findings are in agreement with those of Al-Nuaim (2012), who reported no significant disparities in learning outcomes between online and in-person classes. Some problems with network connectivity (Singh & Meena, 2023; Forbes et al., 2023) and the fact that virtual learning is usually an emergency response rather than a long-term move to online education (Adedoyin & Soykan, 2023; Mabrook & Mabrook, 2020) may make virtual learning environments less useful. Consistent with prior research, a majority of students expressed a preference for on-campus classes due to the motivating atmosphere and reduced distractions.

Student 1 (S1):

> In class, I focus more because of the teacher's body language. Plus, I wake up early every morning and get ready, which makes me more active than in online classes. However, in online classes, I attend lectures in my bed.

S1 highlights the importance of the physical classroom environment in maintaining focus and engagement. The ability to observe the teacher's body language enhances S1's attentiveness, indicating that non-verbal cues play a significant role in learning. Additionally, the routine of preparing for and attending in-person classes seems to positively affect S1's energy levels and overall readiness to learn. In contrast, the comfort and informality of attending online classes from bed reduce S1's engagement, suggesting that the lack of a structured environment in online learning can lead to decreased focus.

Student 2 (S2):

> I could not concentrate in online classes. I was more absentminded during online classes because I could use my phone while the teacher was instructing.

S2 points out the challenges of maintaining concentration in an online learning environment. The ease of distraction, particularly due to the availability of personal devices like phones, hinders S2's ability to focus on the lesson. This indicates that the online setting may lack the discipline and attention that a physical classroom enforces, leading to a more passive learning experience. S2's experience contrasts with studies suggesting the superiority of virtual learning, such as those by Akbari, Tabri, and Chalak (2021). The difference may stem from the idealized conditions often present in experimental settings, which do not fully capture the realities of students' experiences in entirely remote learning environments.

These student viewpoints highlight the intricate nature of online education, especially when compared with traditional in-person learning. Although certain studies have demonstrated favorable results for virtual learning, the firsthand experiences of students such as S1 and S2 highlight difficulties that may not be adequately considered in controlled research environments. The current study scrutinizes online learning in real, non-simulated settings, especially during the pandemic when students solely participated in remote learning without any face-to-face interaction. This approach provides a more accurate depiction of the benefits and drawbacks of online learning in its actual implementation. This approach differs from controlled trials, which often show the online format in optimal conditions, potentially resulting in divergent conclusions. Concerning the second question, the study found consistency with existing literature regarding students' perceptions. The participants appreciated the convenience of accessing courses from home and the ability to revisit recorded lectures whenever needed (S3).

Student 3 (S3):

> I can revise directly in my room after the lecture. However, in on-campus classes, there are many distractions after the class.

This advantage is not available in face-to-face instruction. However, many participants expressed dissatisfaction with the online learning experience, citing it as falling short of expectations (Singh & Meena, 2023). Forbes et al. (2023) raised further concerns about technical issues, particularly network connectivity, and the lack of motivation and peer feedback typically found in classroom environments, which could negatively impact performance due to the correlation between reading comprehension and motivation (Alenizi, 2019; Brozko, Shiel, & Topping, 2008; Wigfield et al., 2008; Chiu & McBride-Chang, 2006). One could attribute this to the direct transfer of face-to-face teaching strategies to online platforms without sufficient modification (Saleh & Medway, 2022). Consequently, students may experience boredom and less concentration, ultimately affecting their academic outcomes (S4).

Student 4 (S4):

> Not all teachers used motivating activities during online classes. Some of the teachers just display the book and explain without using exciting online activities.

The majority of students preferred on-campus learning, citing better concentration, access to content, and more effective socialization (S1; S2; S3; S4; S5; S7; S11; S12). However, some students favored online learning for its flexibility and the ability to participate without feeling shy (S6; S8).

Common disadvantages of online learning included technical problems, lack of focus, and a sense of disconnection from peers and instructors (S1; S2; S3; S4; S5). Additionally, some students found online learning less exciting, particularly for beginners who need foundational support (S10). Students (S6; S7; S8; S9; S10; S11; S12) praised campus learning for its ability to keep them more engaged and focused, citing face-to-face interaction with teachers and peers as a significant advantage. Many students felt more responsible and motivated in a campus setting, particularly during exams (S8; S9; S10; S11; S12). On-campus settings generally saw better participation (S6; S7; S8; S9; S10; S11; S12), but some students found it easier to participate online without feeling shy (S2; S5). Most students preferred group work on campus (S6; S7; S8; S9; S10; S11), but one student pointed out that online group work provided better documentation and accountability (S4). Some students viewed on-campus exams as more serious and motivating, reporting better grades in this setting (S6; S11), while others felt they were less exciting and not ideal for beginners (S10; S11).

All participants reported that seeing the teacher physically motivated them more than merely hearing their voices online. This visual presence in face-to-face classes likely enhanced engagement and motivation, further influencing their learning effectiveness and academic performance. While students appreciated the convenience and accessibility afforded by online learning platforms, they consistently noted that face-to-face classes provided a more conducive environment for understanding and comprehension, especially in reading classes. Many students felt that the physical presence of a teacher and the direct interaction with peers in a traditional classroom setting enhanced their ability to grasp complex concepts and engage more deeply with the material. This preference highlights the significant role that the tangible and interactive elements of in-person learning play in fostering academic success, particularly in subjects that require active discussion and immediate feedback to clarify doubts and reinforce learning.

The study revealed that there was no statistically significant disparity in academic performance between online and face-to-face learning methods. This finding supports previous studies conducted by Garrison and Kanuka (2004) and Means et al. (2013), which indicated that online learning can achieve outcomes comparable to those of traditional classroom settings. Both modalities presented comparable information and utilized standardized evaluations, resulting in this equivalence. The interactive tools provided by online platforms, along with the ability to review recorded lectures, helped reduce distractions and fill gaps in knowledge, potentially improving student performance. Nevertheless, online education encountered obstacles such as connectivity problems and lack of formal environments, which, as noted by Singh and Meena (2023) and Forbes et al. (2023), may have impeded some students'

progress. We conducted the research during a sudden shift to online learning, which may have limited potential variations in the results. According to Al-Nuaim (2012), there was no notable difference observed between online and traditional learning environments. The study identified two major themes: student participation and technical concerns. Students expressed challenges in sustaining motivation and managing connectivity issues, which is consistent with the findings of Anderson (2008), Moore (2013), and Hrastinski (2008). According to McBrien, Cheng, and Jones (2009), the difficulty of modifying in-person techniques for online platforms resulted in decreased participation. Although flexibility has its advantages, DiPietro et al. (2008) noted that students still preferred face-to-face interactions for enhanced engagement. The study emphasizes the necessity of customized online instructional approaches to tackle these concerns, as proposed by Bates (2015). To validate these findings and enhance online learning methodologies, it is necessary to conduct additional research using larger and more diverse samples.

Limitations

The present study had some limitations. First, a relatively small sample size limited the study. Consequently, further research involving a larger sample size and varied contexts is required to more comprehensively assess the effectiveness of online learning and its comparability to face-to-face instruction. Secondly, it is crucial to broaden the research scope, given that the current study limited its scope to a single institution with distinct academic policies. To corroborate the inferences of this research and to explore the perspectives and achievements of educators and students, further research involving both public and private universities within the Kingdom of Saudi Arabia is indispensable. Extending the research to include male participants would provide a more comprehensive understanding of gender-related differences in attitudes toward online learning. Several studies have highlighted distinct variations in how male and female students perceive and engage with virtual education, suggesting that gender may play a role in shaping students' preferences, motivation, and overall experience with online platforms. By incorporating male participants, the study could uncover these potential differences, offering deeper insights and improving the generalizability of the findings.

Conclusion

This study has explored the comparative effectiveness of online and face-to-face learning modalities in the context of EFL Saudi students' reading comprehension courses during the COVID-19 pandemic. Addressing the first research question, the findings indicate no statistically significant differences between the two modes of learning in terms of academic performance. This suggests that under the conditions studied online learning can achieve similar outcomes to traditional in-person instruction. However, we should interpret these results cautiously and refrain from generalizing beyond the specific context of this study due to the relatively small sample size. The second research question focused on identifying the most significant differences between online and face-to-face learning experiences. Consistent with existing literature, students reported mixed perceptions of online learning. While they appreciated the convenience and flexibility of accessing courses from home, as well as the ability to revisit recorded lectures, they also highlighted significant drawbacks. These included technical issues, such as network connectivity problems, as well as a lack of motivation and peer interaction, which are critical for effective learning, particularly in reading comprehension. We also identified the transfer of face-to-face teaching strategies to online platforms without adequate adaptation as a potential factor contributing to reduced engagement and concentration.

This study has shown that online learning can achieve reading comprehension outcomes comparable to those of traditional face-to-face classrooms. However, students expressed a distinct preference for the in-person learning environment, citing better engagement and understanding due to the direct interaction with instructors and peers. While the pandemic has demonstrated the potential of online learning, we must address several challenges, such as maintaining student motivation and engagement, to enhance its effectiveness. Future research should consider larger and more diverse samples to validate these findings and explore strategies to mitigate the identified drawbacks of online learning. Additionally, the development of tailored online teaching methodologies that exploit the unique advantages of virtual platforms while addressing their limitations could further bridge the gap between online and face-to-face learning experiences. This approach could ensure that online learning not only matches but potentially exceeds the educational impact of traditional classroom settings.

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Appendix 1

Sample Lesson Plan

Lesson Plan: Education and Student Life
Textbook: *Interactions 2 Reading* by Pamela Hartmann and Elaine Kirn
Chapter 1: Education and Student Life
Duration: 50 minutes
Objective: Students will develop reading comprehension skills by breaking down paragraphs, identifying main ideas, understanding contextual vocabulary, and engaging in discussion about education systems across cultures.

Lesson Stage	Time	Objective	Activity/Procedure	Materials
1. Warm-Up Activity	10 minutes	Activate prior knowledge and set the context for the lesson.	Display the photo on page 3 of the Student Book. Ask guiding questions about the image. Discuss the significance of the Chinese proverb about education.	Student Book Whiteboard/ Markers
2. Chapter Opener Activity	5 minutes	Encourage students to think critically about the differences in education systems.	On the board, write down a sentence starter. Have students discuss in pairs. Share ideas with the class.	Whiteboard/ Markers
3. Reading Activity	20 minutes	Improve reading comprehension through active reading strategies.	**Pre-Reading:** On the board, write a guiding question. Encourage students to think about the question. **Reading:** Silent reading or follow along with audio. Underline new words. **Identifying the Main Idea:** Read the strategy box. Identify the main idea in paragraphs A & F. Compare answers with a partner.	Student Book Audio Player
4. Post-Reading Activities	10 minutes	Enhance understanding of reading structure and vocabulary.	**Understanding Reading Structure:** Match paragraphs with topics. Discuss answers. **Checking Your Vocabulary:** Check vocabulary in context. Review answers as a class.	Student Book Whiteboard/ Markers
5. Wrap-Up and Homework Assignment	5 minutes	Consolidate learning and prepare for the next lesson.	Recap main ideas. Assign a short reflective writing task. Inform students about the next class discussion.	Whiteboard/ Markers