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Employing Google Classroom to Teach Female Students during the COVID-19 Pandemic

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ABSTRACT

This study sought to understand the experiences of female 11th-graders in English classes that used Google Classroom applications during emergent e-learning due to COVID-19. Teachers and students used Google Classroom in place of face-to-face learning in Palestine as required by the Ministry of Education. A qualitative approach with semi-structured interviews was used to explore the experience of students using Google Classroom, with thematic analysis to analyze the data. Results indicated that most students were interested in using the Google Classroom application; however, the findings revealed that some students preferred face-to-face learning over the Google Classroom application because they suffered from internet speed issues. The study suggests that in training teachers and students on how to use Google Classroom more effectively the Ministry of Education should play a vital role in encouraging both teachers and students to use this application for teaching purposes.

KEYWORDS

Google Classroom;
emergency learning;
online learning;
COVID-19 pandemic

Google Classroom (henceforth GC) is an application that has been used around the world during the COVID-19 pandemic (Okmawati, 2020). There is much focus on using technology in the classroom and adopting teaching strategies that enable students to achieve learning objectives (Hwang et al., 2015). Northey et al. (2015) added that technology facilitates and enhances students' engagement, which is critical to obtaining the desired learning outcomes. Bolkan (2015) argued that information and communications technology and (henceforth ICT) integration in education means using technology-based teaching and learning in education. Because students are familiar with technology and learn more effectively in a technology-based classroom environment, it is vital to integrate ICT in schools, specifically in the classroom (Khlaif & Farid, 2018). Technology plays an important role in the pedagogical components of education that will lead to effective learning when supported by ICT elements. Technology-based strategies and tools can make learning more interactive in languages, art, humanities, and other fields (Price, 2011). Further, ICT supports both

teachers and students when included in interactive learning via technological tools (Jamieson-Proctor et al., 2013).

Language is one of the most important elements that affect world communication. Students use different English-language skills such as listening, speaking, reading, and writing for proficiency and communication. Grabe (2002), Tomlinson (2009), and İltter (2015) argued that computer-based tasks provide learners with quick information and suitable learning material. The researchers suggested that interactive internet materials motivate learners, increasing their learning and interaction. This is certainly true in normal conditions. However, the situation is different during emergencies. During the COVID-19 pandemic, teachers began looking for ways to connect with students, switching to online learning to continue the learning process and achieve their stated goals. Over the course of a week, the COVID-19 pandemic changed the way that people learn around the world (World Health Organization [WHO], 2020). Around 300 million students stayed in their homes after their countries' governments closed schools (WHO, 2020). This new situation interfered with millions of students' from their right to an education and required communities to find solutions to mitigate the negative effects of closed schools (WHO, 2020).

Technology has supported teaching and the learning environment. Indeed, it is an important part of the teachers' profession, which they can employ to facilitate and improve learning. Whenever technology is mentioned in teaching and learning, the word "integration" appears alongside it as technology is a part of people's everyday lives. It is time to employ technology in the curriculum, the learning process, and remote learning. In other words, technology has become an essential part of a student's learning and a significant issue for teachers (Eady & Lockyer, 2013).

Many computer applications are available for use at home, such as Zoom and GC, which are platforms for teachers and students to employ and aid in the distribution and grading of assignments (Mersand, 2014). GC is a platform in which teachers create an online interactive learning process that allows students to communicate with their teachers and peers (Rohman et al., 2020). It is a free application that integrates documents and emails that are saved in storage. Teachers can upload files, videos, links, announcements, and assignments for students. Additionally, documents and files can be edited in class and shared with classmates to learn collaborative skills. When students complete an assignment, they can upload it by sending it to the teacher or posting it to the classroom board. This application can be used on any device and in any place, which makes it easy to use for both teachers and students. Different assignments can be posted, including video segments, PowerPoint presentations, and documents.

Zoom, an emerging technology in the COVID-19 pandemic, was used in the unplanned transition to online learning in the era of COVID-19. Zoom, web conferencing tool, enables using advanced features in live sessions such as screen sharing, recording, polling, and breakout rooms (Lowenthal et al., 2020). During the outbreak of the pandemic, many faculty members at higher education institutions and teachers in public schools opted to hold synchronous classes using web conferences like Zoom (Lederman, 2020).

Few studies have been published regarding technology-based instruction for teaching English in regular or crisis situations, and the literature is especially lacking regarding the COVID-19 period. Responding to this existing gap in knowledge, this study attempted to employ the GC application to teach English to female high school students during the COVID-19 period. Since COVID-19 has changed the way students learn, teachers have to find new and available technological solutions to support the continuation of the learning process. Using the GC application provides an opportunity for students to learn and practice in a visual and virtual environment (Bonk, 2009).

Problem of the study

Over the course of a week, COVID-19 changed learning around the world (WHO, 2020). Around 300 million students stayed in their homes after their countries' governments closed schools (WHO, 2020). Because there were no face-to-face meetings with students, teachers looked for an alternative tool to stay in contact with students and cover the learning material.

Purpose of the study

This study aimed to explore the use of GC in teaching English remotely during the spread of COVID-19 from the perspective of 11th-grade Palestinian female students. It was desired that the study attract teachers' attention and encourage them to use Google Classroom during e-learning as it can benefit both teachers and students and will facilitate learning of foreign languages during COVID-19. Most importantly, the researchers hoped to shed light on technology-based educational applications. Thus, relevant decision-makers may seriously consider opportunities for education during a crisis.

Research questions

Based on the background and aims of the current study, we tried to answer three main questions:

1. How does the GC application facilitate females' acquisition of English language skills during COVID-19?
2. What are the challenges faced by female students while learning a foreign language with the GC application?
3. What is the difference in usability for foreign language instruction between GC and Zoom applications?

Literature review

Education in emergencies

Based on the fourth goal of the 2030s Sustainable Development Goals (SDGs), every individual has the right to a proper education during emergencies (United Nations, 2015). In this regard, the use of GC for online learning during the COVID-19 pandemic offered a good alternative education. Different technological tools are used for teaching and learning in crises when children do not have access to their schools due to political crises and natural disasters (de Oliveira et al., 2021). According to the United Nations Educational, Scientific and Cultural Organization (henceforth UNESCO), education in emergencies is a situation created by conflict, disasters, or wars, that have stopped or destroyed the education system in the country. On the other hand, the United Nations Children's Fund (henceforth UNICEF) declared that the definition of *emergency* can include natural disasters such as floods, human-made crises such as wars, and silent emergencies such as diseases—the cholera outbreak of 2017 in Yemen is a clear example of this. It caused extreme poverty and children lived under stress (WHO, 2020). The latest COVID-19 crisis is another clear example (Ellis et al., 2019).

Education is important in emergencies because of children's needs and desires, as well as those of adults and people with disabilities affected by wars and displacement. Society desires to protect children from harm and works to develop their study skills (Ellis et al., 2019). In addition, education is considered to be the "fourth pillar" of humanitarian principles of protection and health services (de Mesquita et al., 2018). It also enables students to learn the skills and values needed for a better future and improved governance at both local and national levels (Price, 2011). It may have health benefits for refugees and other children experiencing crises. These health benefits, combined with learned knowledge, skills, and values, can enhance peace-building and social and economic development. In fact, UNESCO helps enforce the education system in times of crisis to ensure peacebuilding, that life-protecting messages reach children and their families, helping to save children and adolescents from attack, abuse, and harm and allowing them to live a more peaceful life (Talbot, 2013).

Education in crises has had to use new methods, including electronic media and simulation exercises appealing to children. The COVID-19 crisis has changed how students learn remotely around the world (Affouneh et al., 2020). The outbreak of COVID-19 in the Global South (e.g., Palestine, Libya, and Afghanistan) has had a hidden impact on education through the deepening of the digital divide and learning loss for students (Khlaif et al., 2021). Before the COVID-19 crisis, Palestine developed an e-learning portal and adapted smart learning to mitigate the influence of unstable and violent crises on education in K-12 settings (Khlaif & Salha, 2020). These developments provided clues about how education could change for the better or worse in the long term as the corona virus spread worldwide, including to developing countries that already had crises in their educational systems and used platforms for teaching and communicating with students remotely (Girik Allo, 2020; Khlaif et al., 2021). In the emergency remote learning and teaching environment, learning materials should be made available and accessible for *all* teachers and students to achieve digital equality in education (Khlaif et al., 2020).

Online learning during COVID-19

According to a report published by UNESCO (2020), COVID-19 has impacted human life around the world. Its effect continues to increase, influencing human life beyond education. In particular, its impact on education will continue to increase. In a recent study, COVID-19 has had a negative impact on education in developing countries, called a hidden shadow on education (Khlaif et al., 2020). Many activities and agendas have been canceled. At the same time, all face-to-face learning sessions and meetings have shifted suddenly to online learning systems. In Palestine, for example, both teachers and students in public schools stayed home and yet all schools were required to keep teaching students and provide them with a suitable education (Affouneh et al., 2020). As a result teachers communicated by sending lecture materials through online applications, helping to provide assignments, online discussions, and review of educational material. Teachers in Palestine responded professionally to the unplanned transition from traditional to emergency remote learning through using different technological tools to teach and support their students (Khlaif et al., 2020).

Sun and Chen (2016) argued that interactive online instruction depends mainly on well-designed course materials, effective interaction between the teacher and students, and a well-prepared supporting lecturer. They further stated that the online environment depends on creating a suitable online community. In this regard, Popovici and Mironov (2015) argued that students are aware of the importance of online learning and the advantages

of remote learning. Similarly, Vitoria et al. (2018) argued that students prefer e-learning because it improves their understanding, independence, self-determination, and motivation, as well as increasing interaction between students and their instructor. The study by Kintu et al. (2017) revealed that educational technology can be used to evaluate the learning outcomes and can be used to develop activities for effective learning.

Google classroom

Definition of google classroom

Beal (2017) defined GC as a tool that facilitates both teacher and students' cooperation. This tool can make learners more active as they participate in the classroom and share assignments and announcements. Nagele (2017) added that teachers create active student-centered cooperation via GC. It also has many benefits such as ease of use, allowing students and teachers to connect from anywhere and on any device. Moreover, it allows teachers to create and handle assignments and provide positive feedback.

Features of google classroom

Many activities are possible on GC. First, teachers can attach files and materials. Second, teachers can post assignments with due dates for students. Third, students can download relevant materials that have been uploaded by the teacher to complete tasks. Fourth, students can ask questions and communicate with their teachers and other students. Finally, teachers can reuse important posts such as announcements, assignments, and questions (Muslimah, 2018).

Benefits and limitations

CG is beneficial and effective for all users. It is friendly, free, and saves time through integration with other Google applications such as Google Drive (Iftakhar, 2016). It is a good application for both students and teachers as it is easy to use, efficient, effective, better for the environment (paperless), and enables cooperation between teachers and students. Using electronic devices with internet connections, students and teachers can access GC anywhere.

Google classroom in education

With the unplanned and sudden transition from traditional learning to online learning, students, teachers, and parents started to use various

technology tools to continue communicating, learning, and teaching (Jakkaew & Hemrungrrote, 2017; Khlaif et al., 2021). With unambiguous instruction from educational authorities, there was uncertainty about the effectiveness of specific tools in online learning during the COVID-19 crisis. Recently, Rohman et al. (2020) conducted a study in Indonesia to investigate the effectiveness and efficiency of using GC in online learning during the COVID-19 crisis from students' perspectives. The findings from 120 respondents revealed that GC is effective for online learning due to the ease of using its interface and understanding its platform. The study findings of Rohman and colleagues were congruent with another study conducted by Okmawati (2020) in public schools in Indonesia: The potential of using GC in education is due to its ease of use (Wan Hassan et al., 2020). Moreover, students can use it at anytime and anywhere thus improving their abilities, knowledge, and collaborative skills (Okmawati, 2020).

Benefits of blended and online learning platforms

Siemens and Weller (2011) stated that online sites can promote peer-to-peer interaction, allowing students to share resources and develop communication skills. More specifically, Hartnett and Koury (2012) noted that GC is useful, easy to use, and flexible. Further, it offers collaboration tools that can improve communication between academic staff by allowing them to share at any time or place. Bosch (2009) examined the use of learning platforms and their benefits from the students' point of view: It is easier to find learning material, they can get answers to their questions, it encourages cooperation, and it enhances their educational experience. In a similar context, Fewkes and McCabe (2012) and Zainuddin and Halili (2016) argued that online tools foster students' active learning and higher education, increasing student engagement and motivation.

Asomba (2015) revealed that using GC increases teachers' positive attitudes and motivation toward technology and subsequently encourages student positive attitudes. Bakar and Noordin (2018) stated that the features of GC encouraged communication and interaction in an academic context that was suitable for language learners. It enabled teachers to finish the syllabus on time and helped them manage their classes better. In particular, GC helped improve their presentation skills. Another study by Shaharane et al. (2016) revealed that using GC ensured prompt feedback and improved learners' satisfaction in learning activities. A study by Al-Marouf and Al-Emran (2018) examined the factors affecting students' acceptance of GC these included its practicality and usefulness. Another study by Heggart and Yoo (2018) found that GC improved students' participation in learning, classroom dynamics, accessibility, and collaboration, thus leading to quality learning.

Methodology

Research design

We used a qualitative approach to in our study which enabled us to understand the phenomena, situation, and actions involved with participants' experience in real life (Maxwell, 2004). Qualitative research studies a small number of participants and how their actions influence the context, thus, providing understanding of how events and actions are shaped by their unique circumstances. In this study we conducted semi-structured interviews with open-ended questions to answer the research questions.

Interview questions

The interview questions were developed based on our research questions and from scanning previous studies to better suit the study scope. There were 12 questions that were expanded to include other sub-questions raised during the interview process in order to get more accurate information from participants. These questions were based on qualitative research protocols and gave students an opportunity to talk about their lived experience with using GC in online learning. Moreover, students talked about how GC facilitated their online learning, the challenges, and their attitudes toward using it during the COVID-19 pandemic.

Participants

Participants were 36 11th-grade female students from Ezaria Girls Secondary school in Palestine. The study was conducted during April–May 2020. Participants, already students of one of the researchers, constituted the study sample and its target population. As for the study population, it consisted of all 700 female students at Ezaria Girls Secondary school, considered to be one of the largest schools in terms of size and students numbers. The school administration followed the Ministry of Education (henceforth MoE) in Palestine instruction in adopting online learning during COVID-19. Participants used the GC application during COVID-19 period for English classes only. Before classes, participants were asked to watch videos and write down questions, notes, etc. During online classes, students were queried by their teacher and encouraged to discuss any questions and notes. Teachers designed weekly quizzes using Google Forms to assess their students. Their teacher was considered one the most proactive teachers in using different tools and strategies for teaching English as well as participating in all school activities related to English language topics. In addition, she always encouraged her students to use technology

in learning. The researchers conducted the interviews via Zoom as this study was conducted during the COVID-19 closure. Before conducting the interviews, the researchers obtained permission from the school administration and parents, who signed a consent form on behalf of their children. Participant names are pseudonyms.

Data collection

Individual semi-structured interviews were conducted with the 36 female students and were recorded. The electronic consent form was sent to participants before the interview sessions and an electronic version was returned during the interview. The teacher was not involved in interviewing the students or in the analysis of data. On average, the interviews were conducted within 15 to 20 minutes; however, two participant interviews lasted more than 22 minutes. The interviewers were the study's first two authors. We developed a protocol for the interview (Appendix) that was composed of the purpose of the study, criteria used to recruit participants, confidentiality of participant responses, and the interview questions. The interview questions were developed based on the research questions and from a literature review related to using GC during the learning crisis. Questions covered different aspects related to students' GC experience: familiarity, awareness, impact, effectiveness, challenges, and reflections. Interviewer's questions were checked by a professor in educational technology from a local university for appropriateness and alignment to the purpose and research questions of the study.

Data analysis

Data collected from individual interviews were analyzed through the following procedures suggested by Marshall and Rossman (2011). The audio files were transcribed manually followed by thematic analysis, defined as a qualitative analytic approach for analyzing, reporting, and categorizing patterns (themes) in data (Braun & Clarke, 2006). The definition of thematic analysis helped the researchers describe and organize the data sets in detail based on the characteristics of each unit. The following procedures were carried out: The first two authors individually read each transcript and split it into small units based on the ideas and concepts related to the research questions; numbers and labels were added for each text idea; the main idea of each unit was identified; themes were developed based on the common characteristics among the units; related themes were categorized and organized in clusters; all interview data were assigned into themes; all themes were checked for

accuracy. After the final themes were organized, the two researchers met together to discuss the themes that emerged during data analysis. Disagreement between the two researchers was resolved by discussion. The agreement between the two researchers was 85%. After agreement on the final themes, the third researcher took a small portion of the data and applied the codes of the themes to verify the reliability and accuracy of the coding. The researchers then organized the themes and subthemes from the study. (See [Table 1](#))

After completing interview transcriptions, the researchers sent all written transcripts to participants for member checking, asking that they verify the content for accuracy. In addition, the researchers asked participants to revise, add, or write notes on transcripts. None altered their original statements. With the final themes established, the third researchers took a portion of data and applied the theme codes to check the reliability and accuracy of coding.

Findings

Research question 1: how did the GC application facilitate females' acquisition of English language skills during COVID-19?

Based on the thematic analysis of data from the individual semi-structured interviews, participants reported that GC facilitated their acquisition of skills via emergency remote learning during the COVID-19 crisis. The researchers identified five themes that facilitated participants' online learning during COVID-19: helped develop positive attitudes toward learning via GC, enhanced learning, increased learning outcomes, enhanced self-confidence to use technology, and fit learning styles.

Positive attitudes toward learning via GC

Some students declared that the GC application facilitated connection with their teachers in English language learning. Sumayah said, "It covered the unfinished material; it also increased my knowledge and skills in using technology and computers, I learned more and new material." Asomba (2015) said that GC improved positive attitudes toward technology. According to Zomoroda, "It helped me to learn more, work harder, and take responsibility; it taught me to be faster in reading." Sara added, "I felt comfortable while dealing with the app and it saved time; there was more than enough time to do my homework." Isra'a stated, "It gave me the chance to revise my lessons." However, in contrast, Hala stated "The app's benefits weren't too much but I was able to connect with the teacher and finish the syllabus on time." She added, "I

Table 1. Themes and subthemes in relation to the research questions.

Theme	Subtheme	Example
RQ 1: How does the GC application facilitate females' acquisition of English language skills during COVI-19?		
Helped develop positive attitudes toward learning via GC	Positive attitudes	It helped me to learn more, work harder, and take responsibility, it taught me to be faster in reading.
Enhanced learning	Skills Interaction IT devices	My skills in using technology were improved, It is easy for me to interact with my classmate. I use different devices to access learning materials.
Increased students' learning outcomes	Learning outcomes	It enhances my skills in team work on projects and team assignments.
Enhanced self-confidence	Trust Awareness	GC is safe and no one can access my account. I am aware about the useful of the website.
Fit learning styles	Facilitation of using IT Independent learning	I can use technology without any fears. It [GC] suited our learning style by attachments; I noticed that the teacher can upload different types of content such as video. I can upload my sound on GC; it contains all the learning styles in education.
	Preferences	I can choose the appropriate content from the resources on GC
RQ2: What are the challenges faced by female students while learning a foreign language on the GC application?		
Challenges		I overcame the challenges by removing all other apps from my mobile phone to download GC and use it for learning
Learning environment	Quality of internet	I sometimes needed to discuss something with the teacher, but I couldn't because of the bad speed of the internet.
Attitudes toward GC	Negative attitudes	My attitude toward using GC is negative because I don't like online learning, including this app.
RQ 3: What is the difference in usability between GC and Zoom applications?		
Interaction		It is easy to write comments and feedback on GC more than Zoom
Facilitation of assignments		It is easy to submit the assignments on the system
Safety		Zoom is not safe like Google classroom

used the English language in writing more than speaking.” According to Nagham, “It helped us to feel fearless; it was an effective way for learning and to get new knowledge and information; it suited individual learning differences.” Regarding recognizing the application, most students had heard about it from their teacher, Safia, except Ameenah, who stated that she knew about it from her classmates. “It made my learning fun,” Sumaia said. Hala added, “Yes, it affected me positively and increased my learning outcomes.”

Enhanced learning

Most students stated that they found it an exciting, easy, useful, beautiful, comfortable, good, and enjoyable experience. They said that they learned more about the English language. Others reported that GC fostered their engagement in online activities after finishing the online sessions. Batool said, “It was a beautiful experience; I learned a lot from it, and I relied

on myself.” Hala answered, “It was an effective way to stay in touch with the material and the teacher.” Hana added, “I was able to learn and discuss ideas with my teacher.” Batool said, “It was a new experience in using this new application and it was good.”

Additionally, it affected how they used GC for education. Zomoroda, Sumaia, Batool, and Dania stated that it positively affected their learning style. Dania answered, “It was effective because I have to respect others’ opinions and listen carefully.” Mariam, on the other hand, stated, “It affected me little because I spent much time studying and revising my lessons.” Bara said, “I prefer face-to-face learning so I didn’t enjoy GC; that’s why it affected little about my learning.” Nagham said, “Yes, it encouraged me to put a suitable timetable to revise my lesson and do my homework.”

Increased students’ learning outcomes

As reported by most students, GC increased their learning outcomes. It has been reported to facilitate teaching and learning. Batool confirmed this: “GC helped us to learn and to remember what we have learned.” Ameera responded, “Yes, it developed my speaking, and I have learned new words.” Sumaia said, “It made my learning fun.” Hala added, “Yes, it affected me positively and increased my learning outcomes because I found no difference between face-to-face classes and GC.” However, Hala and Mariam preferred face-to-face classes and schools more than online learning and so it did not significantly enhance their learning: “It increased our learning very little.” Zomoroda, Nagham, and Batool stated, “Yes, it made our learning easier.” Sarah said, “Using online learning is easy; I liked it.” Further, Israa stated, “Yes, we and the teacher achieved all our learning goals.” Batool added, “GC made things easier; we had a better education.”

GC also helped to achieve learning goals and interaction. Students stated that the app increased their knowledge, their hours of studying, and their comprehension. Bara said, “I became faster in writing than before.” Hala said, “I became an independent learner.” Hana said, “We covered the material.” Nagham added, “My goals have been achieved, and all of my classmates learned better.” Sarah said, “I achieved all my goals and the main one which was knowing the GC app.”

Enhanced self-confidence in using technology

Most participants reported that using GC enhanced their self-confidence to use technology in learning and to study individually online in their own space. For example, Nour mentioned that “[u]sing GC increased my confidence toward using technology positively; I began to read and write

English without fear; it developed me and my ability when using the computer.” Sadeen stated, “I learned more about Google apps and their usage to ease the access between students and teachers without any assistance from my teacher. Batool and Nagham reported, “It helped us to know more about educational sites, not just knowing about games like other sites; although it didn’t increase our confidence, we learned more.” Hana added: “Through using my computer and GC, I was able to know more about this application; I know every single detail.”

Fit learning styles

Participants have different perspectives toward supporting of learning styles through GC. Some participants reported that using GC can support their learning style through using different types of digital content such as video, audio, and interactive content. Others disagreed with their peers that it supports the learning style of students. For example, Sumaia reported that “it [GC] suited our learning style by attachments; I noticed that the teacher can upload different types of content such as video; also, I can upload my sound on GC; it contains all the learning styles in education.” On the other hand, Hala mentioned that “[m]y learning style is kinesthetic, visual, and aural, and unfortunately, I couldn’t find this in GC; that’s why it didn’t suit our learning style.” Mariam said that GC did not suit their learning style because they did not like online learning; they liked face-to-face learning. According to Hana, “My learning style is a visual learning style; GC suited me.” Batool reported, “I am social; GC helped me a lot to be in contact with my teacher and the material.” Sadeen said, “I have an aural learning style; GC helped me to be in contact with the curriculum; it facilitated my learning.” Nour stated, “I have a kinesthetic learning style; GC suited my desire for learning; I liked it and the way the teacher used it to help us learn.”

Research question 2: what are the challenges faced by female students while learning a foreign language with the GC application?

Challenges

Based on Table 1, participants reported various challenges when they were using GC in online learning during the crisis. We found three themes related to those challenges: poor internet quality; learning environment, defined as the student’s space (i.e., mobile phone), and students’ negative attitudes toward using GC for learning. Furthermore, the participants reported how they overcame the challenges.

Internet quality

Some students said that the poor quality of the internet in Palestine was a major challenge in using the GC application. Batool reported, “I sometimes needed to discuss something with the teacher, but I couldn’t because of the bad speed of the internet.” Bara’a said, “I used to upload the apps to be able to see my teacher’s comments and my classmates’ answers and discussion.” Zomoroda, “I have a problem with writing English correctly.” Isra’a, Batool, and Dania mentioned, “We didn’t face any problem with the internet speed during our learning process.” Mariam said, “I found difficulties in using this app at the beginning because it was the first time I used this app, but with practice, I overcame all the difficulties.” Ameenah said that she did not have enough space on her mobile phone and had to delete all the apps from her mobile to use GC easily.

Students’ attitudes toward using GC in learning

Ameena stated, “My attitude towards using GC is negative because I don’t like online learning, including this app.” She added, “I prefer face-to-face learning because we faced challenges while we were using it in our learning process.” However, most students expressed positive attitudes toward using the GC application. They learned more and competed to be the first to answer. Raghad stated, “It developed our ability to speak and know more about technology.” Similarly, Nagham stated that “GC makes our learning more fun... . We spent our free time doing useful things like learning by using the GC app.” Batool reported, “My attitude was positive because I achieved a lot during a short period of time.” Ru’a said, “We know more apps today so we are proud of that.” Sara confirmed, “My attitude was positive although there were challenges which I faced during e-learning.”

Overcoming the challenges

Most participants reported that they overcame the challenges through hard work. Ameenah, for example, answered, “I overcame the challenges by removing all other apps from my mobile phone to download GC and use it for learning.” Sumaia said, “If we solve the problem of bad internet, it will be good to use GC.” Mariam, Zomorda, and Sara answered, “With practice and by using the GC guide, we overcame the challenges.” Hana stated, “I used to upload the internet after each comment and task.” Batool added, “Our teacher provided us with videos to have better explanations and learning.” Isra’a said, “By using local internet and 3G, I used the internet easily.” However, Hala and Baraa said, “We didn’t overcome the problems, but we were able to live with it.”

Research question 3: what is the difference in usability for foreign language instruction between GC and zoom applications?

Participants reported three themes with regard to differences between GC and Zoom in terms of usability: interaction, facilitating assignments, and safety.

All participants reported that there is a huge difference between Zoom and GC platforms in terms of student engagement in online learning during crisis and students' attendance at the online sessions. Moreover, some participants concluded that both Zoom and GC can support each other. For example, Sanaa reported that "when I cannot attend live online session, I can watch the recorded session on GC." Other participants described Zoom as a synchronous tool for live sessions where GC is an asynchronous platform where students can implement the activities on the platform and write their comments and feedback.

Moreover, GC is more suitable than other applications to do assignments, which was confirmed by Mariam: "I compared this app with Zoom; I found that Zoom is better and faster because it has video calling." Mariam added, however, "Zoom is not safe like Google classroom." Hala said, "It is slower than other apps." Raghad answered that, "GC is just for learning, unlike other social media apps that people use for fun, entertainment, and speaking with unknown people." Hala stated, "GC is better than other apps"; while Bara'a answered, "Other apps are used in different educational fields, but GC is just for learning." However, Batool said, "GC doesn't have the ability to discuss materials or have deep explanations," while Nagham said, "There is no difference between this app and other apps."

Discussion

This study explored using GC in teaching English remotely during the spread of COVID-19 from the perspectives of 11th-grade high school girls in Palestine. Findings of the study revealed that GC is an effective tool that can be used in teaching English remotely even though it is a new experience for students in Palestine. Using GC facilitated students' online learning during the COVID-19 crisis. Moreover, it helped students stay connected with their teachers and peers. These findings are congruent with the findings of previous studies (e.g., Iftakhar, 2016; Nagele, 2017).

Latif (2016) pointed out that GC is effective for both the teacher and the learner. Regarding the difference between GC and other apps, most participants believed that GC is only for learning, unlike other social media platforms; some also reported that it was slow and pointed out that it does not have video calling. We concluded that most participants preferred

synchronized applications to asynchronous ones because most had a social learning style. “I prefer face-to-face learning,” Aminah said. Most participants suffered from the slow internet in Palestine, which was the most significant challenge. However, GC increased learners’ engagement; both the teacher and the learner have a positive role (Iftakhar, 2016). Hence, the researchers’ believed that students became experts in using GC and dealing with the internet. They overcame the challenges by uploading the app and using the GC guide to learn how to use it. The researchers’ felt that the students became independent learners. Furthermore, most participants learned about the GC app from the teacher. Diccio (2016) noted that GC creates self-learning. This means that the teacher succeeded in her goal of introducing a new app and allowing students to use it to engage online, since the coronavirus has changed how people learn around the world (Yeşil et al., 2013). While Nagele (2017) praised GC’s ease of use anywhere and at any time, Muslimah (2018) praised its flexibility to attach files.

Students’ engagement in asynchronous activities was one of the benefits of using GC in learning English, which is congruent with Iftakhar’s (2016) study mentioned previously. Participants in this study added that using GC affected them positively by allowing them to engage in the learning environment and achieve their learning goals. It also increased their learning outcomes, which was clear from their responses. Diccio (2016) added that using GC makes learning fun and interesting. It also appears that using GC has facilitated the achievement of learning goals because it changed the way students learned. It increased their learning outcomes and enhanced their learning. This study’s researchers also believe that learners became active users of technology; they started to pay attention to it. Yunus and Syafi’i (2020) argued that using GC in learning may direct students’ attention to future majors. Sara, for example, said, “I will study IT at the university.”

There are some students, however, who do not enjoy online learning or using GC due to their negative attitudes or due to a lack of experience or bad infrastructure. However, Asomba (2015) reported that GC improves students’ positive attitudes toward technology and learning. This was reflected in Pedagogy in Action (2018), where it was pointed out that using GC produces wise and valuable learning. Moreover, they may dislike technology in general, including ICT apps. In fact, they may find face-to-face learning better as it suits their learning style.

Conclusion

Using Google Classroom (GC) in teaching enhanced student learning during COVID-19. It facilitated their learning, enabled them to stay in

contact with their teachers, allowed them to cover the unfinished material, and also increased their knowledge and skills and enabled them to employ IT devices and apps. Despite the various advantages of employing GC, some disadvantages were identified, including the poor internet quality. However, students managed to overcome all of the challenges as GC facilitated their learning. Some had negative attitudes toward using GC because they did not like online learning. The data showed that by working hard, they overcame the challenges and employed GC, which suited their learning style. In other words, they were able to switch to online learning.

The major limitation of this study was that participants were female only, mainly because one researcher, primarily charged with data collection, worked at a school for girls. Additionally, the spread of COVID-19 prevented the researchers from including male participants in the study. Another limitation of this study was that it focused on only one learning application: Google Classroom. While researchers were interested in conducting the study on other participants employing other apps, including Microsoft Teams 365, teachers and students were not sufficiently trained to use the application.

Recommendations

GC can help teachers and students as well as school administration to communicate, teach, learn, and scheduling meetings with parents at less cost. In light of the results, we recommend training teachers on designing technological activities and suitable content to be used on GC. We also recommend that teachers develop activities to increase students' engagement, including interactive activities based on group work to enhance GC collaborative work. They should integrate GC into the teaching field. The Ministry of Education should support teachers by providing professional development programs by integrating GC into English language learning. Teachers and decision makers can use Zoom to support GC activities through conducting live sessions and using the features of Zoom to support collaborative work such as breakout rooms.

Further research should be conducted to determine the effectiveness of GC and other platforms to enhance the teaching and learning processes. Similar studies could also be conducted in primary schools. Quantitative and mixed-methods approaches could be used as well. Further studies might investigate the problems of organization and blended learning for future English teachers.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

Interview Protocol for Students

Note: The original protocol was in the Arabic language, but was translated to be included in the article

First name of person interviewed: _____ Date: _____ Time: _____

Dear Participants,

We are a research team composed of three researchers. We are conducting a study entitled “Employing the Google Classroom Application to Teach Female Students During the COVID-19 Pandemic.”

This study aims to explore the use of Google Classroom and its challenges in teaching the English language remotely during the spread of COVID-19. We chose you to participate in the study because you are a female student in 11th grade in a high school setting in Palestine, Arabic native, and you are learning the English language through Google Classroom. We confirm to you that your identity will be hidden, and reports will be anonymous. The study may be published, and the results may be stored by using pseudonym, unless you give permission for your real name to be used in quotation. The interview will take about 15-20 minutes. There are 12 interview questions and a few follow-up questions via email. If at any time during the interview you want to stop, just say so, and we will immediately end it.

In order to be interviewed and recorded, we obtained parent consent but we also need your consent to record the interview for analysis. Please sign this consent form below to give us permission to record the interview session.

If yes, please sign the consent form below.

Signature _____

Interview questions

1. Can you explain your experience with using GC for online learning during COVID-19?
2. What are the benefits of using GC in the learning process?
3. What is the difference between GC and Zoom?
 - Which one is easier?
 - Which one is more interesting?
 - Do you benefit from them? How?

4. What are the challenges that affected your interest in using GC?
5. How did you know about GC? Is it easy or difficult?
6. Has the learning environment (while sitting at home) affected your way of using GC for education?
 - Did you learn easily from home? Explain.
 - How was the internet at your home?
 - Are there any problems in this regard?
 - If any, how did you overcome such challenges?
7. Does GC increase your learning outcome? How?
8. Did you achieve your learning goals and interaction through using GC? How?
9. How did the use of GC affect your enjoyment in using technology, your self-confidence, and your computer knowledge?
10. Are your attitudes toward using GC in education positive or negative? Why? Does using GC suit your learning style? What is your learning style? How does it affect learning languages?