

Perceptions of Teachers in International Schools in Libya on Online Teaching during COVID-19 Pandemic

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تصورات المعلمين في المدارس الدولية في ليبيا حول التدريس عبر الإنترنت أثناء جائحة فيروس كورونا-19

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الملخص:

جائحة فيروس كوفيد 19 العالمية فرضت أساليب تعليم جديدة على مستوى عالمي بسبب حظر التجول وتطبيق التباعد الاجتماعي والبدني. ونتيجة لذلك، تم تنفيذ التعليم عبر الإنترنت في المؤسسات التعليمية في ليبيا دون إدخال وتطبيق تدريجي لمختلف مستويات وفئات المدارس بما في ذلك المدارس الدولية. تهدف هذه الورقة إلى التحقق من مواقف معلمي المدارس الدولية في ليبيا تجاه التعليم عن بعد خلال فترة الإغلاق بسبب فيروس كورونا. استخدمت الدراسة منهج بحث نوعي، باستخدام استبيان تم توزيعه على 51 معلماً من مختلف المدارس الدولية في طرابلس، ليبيا، بالإضافة إلى إجراء مقابلات مع خمسة مشاركين. تم تحليل البيانات المجمعة باستخدام عملية تحليل البيانات الاستقرائية. أظهرت نتائج الدراسة مواقف متنوعة بين المعلمين تجاه تجربة التعليم عبر الإنترنت. وضح غالبية المعلمين أن التعليم عبر الإنترنت كان مرهقاً لهم وغير منتج بسبب ضعف البنية التحتية للإنترنت والتواصل المحدود للمعلمين مع الطلاب. وأشار العديد من المشاركين إلى أن تجربتهم في التعليم عبر الإنترنت خلال جائحة كوفيد-19 كانت تحدياً، ونتيجة لذلك، أثرت الصعوبات التي واجهوها على تعلم الطلاب. كما أن المعلمين نفذوا تدريجياً عبر الإنترنت بدون وجود معرفة وإعداد مسبقين لذلك. ومع ذلك، أظهر معلمو المدارس المدعومين من مدارسهم موقفاً أكثر إيجابية تجاه التعليم عبر الإنترنت. أثبتت الدراسة وجود تحديات يواجهها المعلمون وتأثيرها سلباً على تعلم الطلاب، مشيرة إلى الحاجة إلى تحسين البنية التحتية والإعداد لضمان نجاح التعليم عبر الإنترنت في المدارس.

الكلمات المفتاحية: كوفيد 19، التعليم عبر الإنترنت، التدريس عبر الإنترنت، التكنولوجيا، التعلم الإلكتروني.

ABSTRACT:

COVID-19 pandemic imposed new styles of education globally, because of curfews, social and physical distancing practices. As a result, online teaching got to be implemented in educational institutions in Libya without introduction and gradual applications of the different levels and school categories including the international ones. This paper attempts to explore perceptions and attitudes of international schools' teachers in Libya to online teaching during Coronavirus lockdown. The research utilized a qualitative approach, using a questionnaire that was distributed to 51 teachers from various international schools in Tripoli, Libya, along with conducting interviews with five participants. The collected data were analyzed using an inductive data analysis process. The findings of the study revealed diverse attitudes among the teachers towards the experience of online teaching. The majority of teachers found online teaching to be stressful and unproductive due to poor internet infrastructure and limited communication with students. Many of the participants argued that their online teaching experience during Covid-19 was challenging, and as a result, the difficulties they faced impacted had students' learning. Teachers also lacked prior knowledge and preparation for online teaching. However, aided school teachers displayed a more positive attitude towards online teaching. The study emphasizes the challenges faced by teachers and their impact on student learning, highlighting the need for improved infrastructure and preparation for successful online teaching in schools.

Keywords: COVID-19, Online education, Online teaching, Technology, E-learning.

Introduction:

COVID-19 pandemic has suddenly affected all aspects of our lives. All the social activities had to be stopped and find alternatives to be continued instead due to the quarantine. In Libya, the World Health Organization (WHO) announced on March 29th that



it had classified Libya among countries with high risk with respect to COVID-19. Due to the crisis, authorities have affirmed varied COVID-19 restrictions to restrain the spread of the disease. A series of measures have been imposed and extended, including nightly curfews, closure of educational institutions and nonessential businesses, and movement restrictions, in cities across weeks. In terms of education, The World Bank reported that 190 countries, including Libya, have been led to complete or partial school closures, that meant halting all teaching activities halfway through the semester and as a result a frantic rush for online education as an alternative solution began. COVID-19 pandemic imposed online teaching and learning on educational institutions in Libya without preamble of any level. According to Saleh (2021) this happened because online teaching was not recognized in the Libyan education system before the corona virus pandemic. This is an unpredictable transition positioned teachers in a wholly new paradigm in which new pedagogical skills had to be acquired and attitudes had to be changed.

Education system in Libya, for nursery, primary, elementary, and secondary (high) levels, classifies schools to three instructive sectors; public schools, private schools, and international schools. Basically, public schools in which education is free, whereas private schools charge fees for better standard teaching. But both follow the national curriculum determined by the ministry of Education. Typically, Arabic is the language of instruction in these schools. On the other hand, international schools' policy is different. Around 20 international schools are in Tripoli. Schools start from preschool and run through to the end of high school. These schools may follow the American, Canadian, Irish or the national curriculum for England including a range of IGCSE, and the language of instruction follows the curriculum being followed.

Due to COVID-19, the international schools in Libya had to lock up their classes and hold the educational process with online classrooms. Most of them started some actual online education as a sequel phase after the intermission because of the pandemic. However, most of the international schools established using online platforms such Google classrooms and Zoom meeting to introduce their courses according to the current load; later, in response to significant demand, international schools started announcing complete programs on online platforms with high standard potentials and facilitations. As a result, the educational core has dramatic changes, with distinctive spread of online teaching that became a necessity.

This research has the objective of examining the impact of the sudden transition from traditional classroom teaching to online teaching in international schools in Tripoli, Libya, as a result of the COVID-19 pandemic. The study aims to explore teachers' perspectives and attitudes towards this shift, as well as the challenges they may encounter throughout the process.

Context of Online Education in International Schools in Libya:

Despite contributions of emerging technology in education over the last years, online education is still at an early stage in Libya (Amro,2022). There is



continuous expansion of using technology in the country; yet online education has become more popular in Libya only in 2020 during the closure of educational institutions because of COVID-19.

Prior to the COVID-19 pandemic, the international schools in Libya used to follow traditional strategies in teaching with limited usage of some technological tools such as the smartboard, CD players, and videos. Online teaching, E- learning, and distance learning had not been integrated in the educational system of the international schools in Libya before 2020; the only online resources used was social media for communication purposes between the schools and the students' families only. Moreover, School management software, also known as school management system SMS, was introduced to more than 20 international schools in Tripoli, Libya as an administration tool with the aim of automating administrative duties to help the schools with their daily routine, class enrollment and monitoring faculty and students. Some of those SMS platforms are i-study, and Myschool.ly. Those SMS tools worked partially as a mediator to connect the schools' staff, students, and parents with some synchronous educational platforms such as Zoom, Google Meet, and BigBlueButton and some recorded lessons to facilitate the learning process but that was not on regular basis (Sarya Technology Company, n.d).

The purpose of the study is to examine teachers' perceptions of online teaching towards the transition to online teaching in international schools due to the COVID-19 pandemic. It also aims to explore the challenges they encounter, as well as the solutions they employ.

Research questions:

This research was set to answer the following questions:

1. How do teachers in international schools in Libya perceive online teaching during COVID-19 Pandemic?
2. What challenges do these teachers face with online teaching during COVID19 and how do they overcome these challenges?

Literature Review:

History of Online Teaching:

Online education has been implemented in education for more than 40 years; yet it is still treated as if lately introduced. Online education originated from the University of Illinois in 1960 (Sarkar, 2020). During that time, the internet was not invented, learners began learning from computers' terminals that were linked to form a network. By the mid 1970s, over 30 projects were managed by the National Development Programme in Computer Assisted Learning NDPCAL in the UK to examine potential educational applications of computer assisted learning CAL (Passey, 2014). The University of Phoenix was one of the early pioneers that ran an email and computer conferencing program.



Thereafter, the University of Phoenix was also the first institution to expand and proceed completely into online education in the late 1980s. (Lindquist, 2006; Sarkar, 2020). The early use of online education was in the 1980s by the Western Behavioral Science Institute (Thompson, 2021). In the 1990s, the launching of the World Wide Web created progress of the first learning management systems (LMSs) that offered an online teaching setting (Bates, 2014).

In 1994 there was a full completely online curriculum that is introduced by Cal Campus (Kaware, & Sain, S. K., 2015). In the mid-1990s, there was this coalition of schools that activated the first virtual institute that offered online courses (Barbour, M.K., & Reeves, T. C. 2009).

Latterly in 2020, online education has the massive revolutionary expansion because of COVID-19 pandemic to include all the educational institution around the world (Daniel, 2020). Broadly, the education process has a major transformation because of emerging technology. The progression of technology has improved the quality of distance education and increased the trend of online learning. Teaching and learning are changing forward with technology's lead.

Theoretical Framework:

Online teaching process via applications or virtual platforms may have different point views in terms of theories, methods and implementation. Explicitly, many theories have been developed for online learning derived from the major learning theories. In general, a learning theory is an attempt to describe the learning process. Theorists agree that learning cannot be studied directly, but through its nature and procedure of implementation (Olson, 2015). Experiential Learning theory is related to online education and can be utilized for the theoretical framework of this study. Moreover, connectivism as a pedagogical view might add to the theoretical background of this study.

Experiential Learning:

Experiential learning theory (ELT) is based on the foundational works of Kurt Lewin, John Dewey and others. David Kolb combined these foundational scholars' work to develop a holistic model of experiential learning theory. It emphasizes that people learn better when they are actively involved, and whatever the learning outcome is, learners reflect their doing and form rich memorable understandings. Knowledge may also come from directly experiencing the consequences of using specific information or skills through self-efficacy (Kolb, et al 2009).

Experiential learning is basically based on the philosophy of experience and action; it offers dual modes: experience/ abstraction and action/reflection. For the experience involved in learning, there are two stages: 1) grasping an experience which includes two ways concrete experience and abstract conceptualization, and 2) transforming experience, which are active experimentation, and reflective observation. (Kolb, et al 2009).

The two dual modes of experiential learning are often described as a learning cycle that may function as four phases of learning. This cycle identifies that individuals differ in their preferences and tendencies for the four phases related to many factors such as culture, personality type, life experiences, and educational specialization. The four phases describe the learning as (Kolb, 2005):

1. The developing process is constant.
2. Not product centered, but progress centered
3. Formation and re-formation of knowledge through experience. Knowledge is not fixed. It can be constantly formed and reformed through additional experiences.
4. Learning is continuous or cyclic. It will always continue to spiral through new learning and understanding.

According to Kolb (2009) concrete experience affords information that serves as a base for reflection. Thus, the learner adjusts and adapts the information and form abstract concepts. Next, abstract conceptualization happens as the learner forms new concepts or adjusts previous knowledge based on the experience and their reflection about it. Acting occurs when the learner applies the new ideas to the world around them, to see if there are any modifications to be made.

Figure 1: Experiential Learning Model.



Note: This figure demonstrates experiential learning cycle

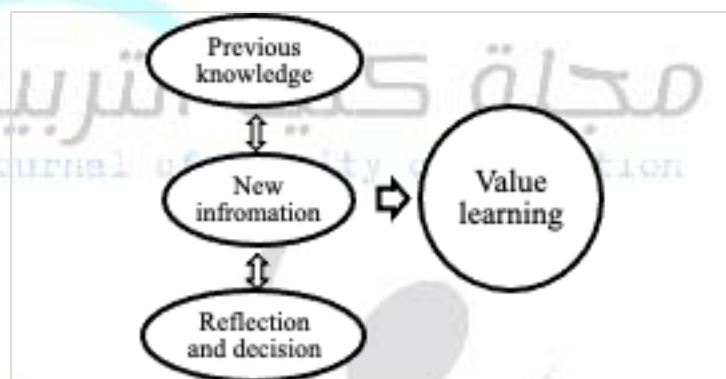
In sum, experiential learning theory suggests that learning is a continuous process due experience and reflecting. Experiential learning focuses on the idea that the best ways to learn things is by actually having experiences. Those experiences extend in your mind and help you retain information and remember facts.

Connectivism:

Connectivism was introduced by one of the early Massive Open online Courses' MOOC pioneers, George Siemens (2004) on a blog post which was later published as an article. It sets a pedagogy for learning in a digital age (Sitti, et als 2013). Connectivism defines learning as an actionable knowledge that can reside outside of ourselves. It focuses on joining specialized information sets that support learning more, are more important than our current state of knowing. Its core principle is how internet technologies and social media

networks create a modern style of learning. Connectivism views learning as a process that occurs within indefinite uncontrolled environments through connecting information sets that create learning (Siemens, 2017). Fig. 2.

Figure 2: Suggested Model for Connectivism



Note: This figure shows a suggested model for Connectivism

Connectivism learning process includes grasping concepts and creating nodes which can be fields, ideas, and/or communities. It presents a model of learning in society where learning is no longer an internal, individualistic activity. Connectivism identifies learning skills and tasks needed for learners to flourish in a digital era. Our ability to learn what is needed for tomorrow is more important than what we know today. The ability to identify and access sources to meet the requirements when knowledge is needed becomes a vital skill. As knowledge continues to develop, access to what is needed is more important than what the learner currently possesses of knowing.

Connectivism is not a theory; it is rather a pedagogical view. Kop and Hill (2008) also determine that Connectivism may play a role in developing new pedagogies but never set as a theory. After more than a decade, the pedagogy has not been empirically confirmed as a theory by its founder or by others. (Kop & Hill, 2008).

Previous Studies:

Formerly, online teaching has been the core of trial in the last century by many researchers with pros and cons of online teaching. However, online teaching has been adopted by teachers during COVID-19 without any preceding accommodations. Accordingly, research and studies to investigate online education in the recent sitting of COVID-19 became a necessity to possess a successful educational process. Many local and comprehensive studies have taken place to explore technologies and educational resources available for online education, and the difficulties associated with that.

Locally, according to Saleh (2021), in Libya, educational institutes in Libya have been closed and all their education programmers have been completely interrupted. This



happened because online teaching had not been recognized in the Libyan education system before the crisis. The researcher has conducted a study investigating the views of 82 Libyan higher education instructors about the opportunities and challenges of implementing online teaching. This involved identifying their attitudes towards remote teaching, their online technical skills and abilities and their perspectives about the barriers that may occur in this process. The data that was collected through a closed-ended questionnaire revealed the participant instructors' positive attitudes towards remote teaching with good online and technical skills. Some contextual, technical and administrative barriers were reported. This study has recommended the ministry of education to start planning for official recognition and introduction for remote teaching in Libyan higher education institutions.

Another study was held in Libya by Elberkawi et als (2021) to focus on issues and challenges associated with online learning during COVID-19 as perceived by the Libyan International Medical University (LIMU) students. In addition, the study observed their opinions, and challenges with online learning during the pandemic lockdown. In this study, descriptive methodology was followed, and an online questionnaire was set up to collect data from students. The research participants were students from six faculties at the Libyan International Medical University (LIMU). The findings revealed that there are social challenges, students' challenges and challenges that arise from the lecturers.

With similar attempts by Gadour (2021), a study was conducted to explore attitudes of higher education students to online learning and associated advantages and challenges with online learning. Questionnaire interment was used to collect data from university students, 58 respondents whom 40 undergraduate and 18 postgraduate students. The results stated that students had been more interested in traditional ways of learning and face-to-face communication than online learning. The researcher recommended that universities should improve their online learning to make the learning contents and assessment more appropriate.

Moreover, Khlaif et al (2021) conducted research to find the challenges associated with online education of the middle school students, parents, and teachers during COVID-19 in the countries of Palestine, Libya, and Afghanistan. The findings revealed that during COVID-19 the students and families had difficulties in attending online class programs. Additionally, violation of students and parents' digital privacy appeared as another key challenge. However, teacher presence and feedback in online sessions strengthened students' engagement with the sudden online teaching context. In conclusion, the study revealed that the sudden shift to online teaching during COVID-19 deepened inequities across students and invaded digital privacy of students, teachers, and parents.

In Morocco, a study was held by Mounjid et als (2021) aimed to assess the impact and efficiency of online teaching during the COVID-19 outbreak among teachers. Teachers have adapted different platforms to carry out their online courses. This study aimed to evaluate the effect of online teaching during the COVID-19 lockdown among teachers in Morocco. An online survey questionnaire was employed as an instrument for data collection.



Overall, 421 Moroccan teachers from different regions participated in this study. Statistical Package for Social Sciences (SPSS) software was set to analyze the collected data to determine the effect of online teaching during the COVID-19 in Morocco. The results indicated that most of the teachers encountered technology, training, and socio-economic challenges that hinder the progressions of online education.

Broadly, a case study was done by Aliyyah et als (2020) to explore perceptions of primary school teachers of online teaching in a program developed in Indonesia called School from Home during COVID-19 period. Data was collected through surveys and semi-structured interviews. The participants were 67 class teachers in primary schools. Thematic analysis was used to analyze the conducted data. The findings revealed that the collaborative learning between teachers, parents, and schools resulted in student success. In general, the experience of online learning in Indonesia during the pandemic succeeded on account of the mutual preparedness of technology with the national humanist curriculum, support and collaboration from all stakeholders, and the community.

Also, Noor, S. et al (2020) investigated the perception of school teachers in Pakistan regarding online teaching practices during the COVID-19 pandemic. In the study, a qualitative research strategy was adopted in the study, as it is exploratory in nature. It involved the collecting of data through semi-structured interviews conducted via Skype with 10 school teachers. Inductive data analysis technique was used in analyzing the collected data. The study's findings highlighted the challenges that school teachers had in carrying out online classes via Google Classroom, Zoom, and Microsoft Teams. The challenges revealed by teachers were high-cost Internet packages, uncooperative learners, low attendance of learners, teachers' technology confidence, limited availability of educational resources, lack of ICT knowledge, and poor network infrastructure. Though, the researchers declared that the collaboration between school teachers proven in working with very limited facilities was very representative.

Many studies have explored online teaching and online learning during COVID-19 from different aspects worldwide. In Libya, researchers have investigated the challenges, attitudes and perspectives of teachers and students alike mainly in higher education and universities, but none of the studies focused on their perceptions and attitudes to online teaching in international schools. Thus, this current study explores the perceptions, attitudes, and challenges of the Libyan teachers at international schools toward online teaching experience during COVID19 pandemic. The study aims to bridge the gap left in the literature by focusing on the international schools in Libya utilizing experiential learning theory and connectivism pedagogy for the theoretical framework of the study.

Research Method:

This study tries to obtain qualitative and descriptive attitudes and perceptions. Thus, data is collected through two research methods: a questionnaire has been designed to examine the attitudes of the teachers to online teaching. Additionally, interview



instrumentation has taken place for conducting data. Responses of the participants are coded via open coding to demonstrate categories. Further thematic analysis is used to identify subthemes and themes. Thematic analysis is a method usually applied for examining qualitative data such as interviews or transcripts. It is set to analyze the data to recognize repeated subthemes, themes, ideas and concepts.

Data Collection:

Based on the aim of this study, two methods have been used for data collection; a questionnaire and an interview. The questionnaire method is a popular data collection tool that consists of a list of questions that aims to gather information from participants. It has two types, open-ended questionnaire and closed ended questionnaire. For this study, a mixed questionnaire of open-ended and closed-ended questions instrument has been prepared to collect data from the participants.

Further, interview collection tool is a verbal method that requires stimuli and response. Face to face interview was used for data collecting through direct personal investigation. The interviewer gathered the data from the participants who had already answered the questionnaire, yet further explanations were needed from them. A set of predetermined questions were asked using online recording techniques by which the interviews were immediately transcribed on site.

Participants and Sample Design:

Sample design is a specific plan to get a sample from a given population. (C.R. Kothari 2004). This plan involved techniques and the process that a researcher followed in selecting items. The number of items included is such as sample population or universe, the sample size, and sampling unit. Sample design is a research phase that is set before data collecting phase. A researcher must select and prepare an appropriate sample design for the research study.

The sample population refers to the items or people that will constitute the target population for the research. In this study, the target population of the study will be teachers of international schools at preschool, elementary, middle, and high levels, more specifically, those who experienced online teaching during COVID-19 pandemic.

A sampling unit refers to the geographical state, district, city, and country from which your population is. The sample unit of this research is Tripoli city, Libya. Specifically, the sample of the study is teachers at international schools who experienced shift to online teaching during COVID-19 lockdown in Tripoli, Libya. Teachers as respondents, voluntarily participated in the study by answering the questionnaire. Later, the interview was addressed to some of the same participants to obtain more information and clarification for their prior responses.

A sample size refers to the number of items selected from the population to constitute a sample for the study. According to Kothri (2004), the sample size should be neither



exceedingly large, nor small. It just should be appropriate and efficient to represent the population.

International schools in Libya follow foreign curricula and use English language as a means of instructions for all the levels in their teaching system. Some of the international schools in Libya are accredited by the educational and testing institutions and/or syndicates such as Cambridge and Pearson in the countries that they follow their curriculum, mainly the United Kingdom. However, International schools in Libya are mandated to be certified by the office of Private Education Institution in Tripoli- Libya, and there is a systematic and quality assessment which ensures class and laboratory readiness, full staff member attendance, and accredited documentations. Teachers at international schools, being the participants in the current research, are either native speakers of English language or non-native proficient teachers with Bachelor in English or other certificates qualifying them for teaching English as a foreign language. All teachers at these schools must have great proficiency in English language.

Data Analysis:

The qualitative data of the study was analyzed through Thematic analysis (TA). Thematic analysis is a method for systematically identifying important categories and commonalities among the data in relation to the topic and research questions being investigated, followed by offering insight into patterns of meaning, i.e., themes (Braun & Clarke, 2012). TA takes place in six phases: (1) familiarizing the data; (2) searching for initial codes; (3) generating themes; (4) refining and reviewing themes; (5) defining and naming themes; and (6) writing the results.

Inductive thematic analytics was assigned to identify, evaluate, and make a theme expressed by participants. The data collected of the questionnaire and interviews has been checked and read to assign the prospective codes by labeling and grouping similar pieces of data using different colors on the spreadsheet. Later, categories and themes were generated from the codes in answering the research questions and to exclude inconsistencies in interpreting the data.

Results:

Based on the information provided, the study investigated the perception of teachers in international schools in Libya towards online teaching during the COVID-19 pandemic. The study utilized a mixed-methods approach, incorporating both a questionnaire and interviews for data collection.

The questionnaire was distributed online using Google Forms and had 34 questions, including closed-ended questions, 5-point Likert scale questions, and open-ended questions. A total of 51 teachers from international schools in Libya voluntarily responded to the questionnaire. Among the participants, 25.5% were male teachers, while 74.5% were female teachers.



According to the results obtained from the Google Forms responses, most teachers (70.6%) used computers or laptops for online teaching, while 21.6% used smartphones, and 7.8% used other gadgets. In terms of schools' support during the transition to online teaching, 76.5% of teachers agreed that their schools provided instructions and guidance, while 9.8% disagreed, and 13.7% were neutral. Additionally, 64.7% of schools offered technical guidance to teachers when they encountered technical issues, while 19.6% did not provide any guidance, and 15.7% were neutral.

The study found that online teaching was a new experience for many teachers (70.6%), while 21.6% had some previous experience, and 7.8% were neutral. Among the participants, 78.4% reported that they self-studied online teaching techniques and strategies, while 11.8% did not, and 9.8% were neutral.

In terms of motivation and stress during the transition to online teaching, 60.8% of teachers felt less motivated, while 53% reported feeling stressed. On the other hand, 19.6% felt motivated, 19.6% were neutral regarding motivation, and 17.6% were neutral regarding stress. Furthermore, interviews were conducted to gather more in-depth information and support the questionnaire responses. The interviews explored teachers' previous knowledge of online teaching, their experience with online teaching, training and support received, challenges encountered, and their willingness to continue online teaching. The responses varied, with some teachers expressing a desire to continue online teaching while others stated that they would not practice it again.

For qualitative data, inductive thematic analysis was applied to identify codes manually from all the responses; then generate themes from the codes elicited. The data content of the questionnaire and interviews were tabulated to facilitate reading all the responses in steps and to find out the codes manually and precisely. The similar codes were grouped into categories and then to themes, with subthemes for some of them. Among all the commonalities, the findings of the study revolved around four main themes that were generated throughout the thematic analysis of the data. The themes developed were: 1) prior knowledge and training, 2) instructional strategies, 3) teacher's viewpoints and first-hand experience, and 4) challenges and possible solutions.

Themes developed:

Prior Knowledge and Training (Before and during COVID-19):

Most participants mentioned that their online classes had not been run smoothly due to lacking preceding knowledge and online teaching experience. A similar result was reached by Mounjid et al (2021), in which teachers identified lack of training as one of the problems that hinder the progression of online teaching. It is noted from the results that most of the participants lacked previous knowledge on online teaching before COVID-19. This result is consistent with the findings of previous research, Noor et al (2020) had comparable results showing that teachers lack knowledge to online teaching before COVID-19 pandemic. As teachers, they neither experienced nor practiced any practical online teaching before this



sudden transition. 30 teachers out of 50 revealed that they had not had enough prior knowledge and they had never applied any online resources or classes in their teaching before COVID 19.

Some participants expressed their lack of familiarity with online teaching, while others were uncertain about their level of knowledge before the pandemic. A small percentage of participants, about 10%, mentioned having some knowledge of online teaching before the pandemic. They cited experiences such as taking online classes during their university studies or undergoing online training programs.

During COVID-19, many teachers were in a stressful condition in which they had to gain knowledge, learn about online teaching, and apply this knowledge to their classrooms simultaneously. Most of the international schools provided the teachers with short and intensive training which was limited to how to use the online applications (Apps) to deliver lessons and educational materials. The training was not sufficient or adequate for the teachers to be independent enough to run online classes. There were not various resources and facilities as well. However, teachers received some guidance to employ applications for online classroom as an initiative step to continue online teaching afterwards.

However, the practice of online teaching during COVID-19 afforded teachers further information since teachers learnt about online teaching through involvement. The teachers adjusted and adapted new online teaching techniques while delivering those virtual lessons. They gained knowledge and practical strategies through their experience of online teaching during the pandemic.

Instructional Strategies:

The participants found that implementing online teaching has changed their teaching strategies and the activities they used to apply in the traditional classes. The instructions they adopted for online teaching included the usage of multimedia and online platforms for the classes. The instructional media that most teachers used were videos that teachers had to create for their lessons for online classes during the Pandemic. Teachers said that videos were accessible to use, and they started to be creative in making them, so students could easily understand the subject matter.

WhatsApp, Google classroom, Zoom, and Telegram served as media in delivering learning material besides Google Forms for testing and assessment. Teachers mentioned that they used these Apps to deliver the lessons to the students' parents to be subsequently given to the students. The media chosen were the ones most parents already use. Some schools delivered tutorial sessions to help the parents use the teaching Apps and platforms.

Some teachers carried out synchronous classes using Zoom Meetings for the students in the presence of their parents and the recordings of the meetings were shared later with them on social media groups. However, most of the teachers used asynchronous online classes and recorded videos to be posted for students on social media boards. Participants preferred the use of asynchronous classes to synchronous ones, and they justified their

preference to the poor internet signals that would make synchronous classes hard to run. They also used offline assignments and quizzes with a predetermined time-limit for submission; Google Forms were also used for the testing purposes. Some teachers were satisfied with using some Apps that were available on Cell phones.

Teachers' First-hand Experience in Teaching Online:

Contrary to the findings of Saleh (2021) in which teachers presented positive attitudes to online teaching, here, most of the teachers stated that they were unmotivated, and stressed about online teaching at first when they were asked to shift to online teaching due to COVID19 pandemic and the quarantine stage. They mentioned that virtual and online teaching was totally a new experience to them. They found it difficult and challenging running online classes since they did not have adequate background about it before COVID-19.

Even skillful and qualified teachers found it difficult to manage online courses at the beginning and they were unsecure about the experience itself. Also, teachers were unconfident and anxious during shooting and recording their online classes because they were worried to be criticized and/or judged by the parents.

Although the teachers were unenthusiastic about online teaching at the beginning, after applying it in their classrooms for some time, they got motivated, and their background and knowledge increased either by self-studying or practice.

It is also deduced from the data analyzed that besides the experience itself, schools' support played an essential role in implementing appropriate online teaching programs for teachers to adopt. Support and guidance from principals of schools during such conditions were important to motivate teachers. According to the participants, some of the facilities that schools provided were managing school equipment, checking teachers' readiness, funding, and other technical support aspects.

Challenges and Possible Solutions:

Participants emphasized that as teachers, they faced many challenges in the online teaching process during COVID-19 including technical obstacles, slight participation of students, and preparing the lessons. The major challenge they had was the technical issue, namely poor internet signals, the power outage. Teachers struggled in uploading the lessons' videos and experienced delay in carrying on their virtual lessons. Also, poor internet connection caused issues in communication between the teachers and the students, insufficient participation of students in online classes, and the delays in passing the assignments. As a result, obstacles kept arising from this technical level which were hard for the teachers to solve. These challenges tie well with previous studies of both Mounjid (2021), and Noor, et al (2020) wherein revealed that the teachers handled similar challenges during the shift to online teaching.

According to the participants, another challenge was raised by the interference of parents during the lessons. Some parents were there in every lesson with their children that caused distraction for both teachers and students. Most of the teachers felt uncomfortable during giving the lessons while parents were watching.

Besides that, participants had difficulties conditioning students. Teachers had to carry out conditioning activities in the virtual classroom to determine attention and motivation of students to learn. For this reason, teachers had to ensure that all students interactively participate to learn and look for creative ways to engage them, which was challenging and hard to achieve. Many teachers stated that it was not easy to maintain student interest in learning.

Another challenge that is closely related to student conditioning is delivering information to students. The ability of teachers to deliver the lessons had impacted the success of online learning. Teachers did not have online teaching experience, so they have difficulties in explaining the lessons without using body language in their classes and found it challenging to carry out online teaching. Teachers found it difficult to run videos, especially at the beginning. Some teachers stated that this situation became a load for them, especially in implementing asynchronous classes, so learning was not that optimal. For teachers who mastered their classes with time, online learning was effective since they kept working to improve their teaching strategies.

Conclusion:

This study purpose was to explore perceptions and experience of Libyan teachers in international schools of online teaching, as well as the challenges and possible solutions that teachers might had. Many previous studies had tended to investigate online teaching and online learning during COVID-19 from various aspects. In Libya, many researchers have studied the challenges, attitudes and perspectives of teachers and students mostly in higher education and universities, but none of these studies investigated online teaching in international schools during COVID19 pandemic. The findings of the study found that attitudes of the teachers towards online teaching experience are varied. Many teachers felt that online teaching was stressful and not productive when they started practicing it as they were not able to communicate with their students due to poor internet. Teachers believed that the challenges they faced affected students learning. All technical barriers, conditioning, and student involvement, and schools' support impacted the attitudes of teachers. The support and the training were not enough. The aspects that were considered the most negative and challenging during the emergency online teaching placement was the lack of internet services and communication with students. Also, teachers were not proficient in e-Learning skills, they did not have previous knowledge about online teaching. Further, the results of this study indicated that teachers found themselves in variously different situations depending on their preferences first and the internet services to carry out synchronous or asynchronous teaching.

Further findings showed that aided school teachers presented more favorable attitude towards online teaching but unaided teachers did not present any interest towards the online teaching because some of the international schools did not pay or offer the internet service or any teaching supplies. These issues affected attitudes to online teaching.

However, teachers tried their best to enhance the capability of online learning amongst their students. The determination of the teachers is admirable, teachers used to face-to-face teaching throughout their teaching practice. They had never practiced teaching via online applications such as Zoom and Google Classroom. These teachers have never handled a camera before, but are learning new skills, new tools, and committed them in the delivery of online courses to their students. They tried to afford education to all students, despite the lack of knowledge, different difficulties, and challenges they faced, and the lack of experience that is considered new learning process, the way teachers took this experience and learn throughout the process is vital in terms of their beliefs, assumptions, and reflecting, as associated to the Experiential Learning Theory and Connectivism.

In conclusion, this study highlights the complex challenges faced by Libyan teachers in implementing online education. Despite the difficulties, teachers demonstrated resilience and a commitment to enhancing online learning for their students. By addressing the identified challenges and providing the necessary support, training, and resources, education stakeholders can empower teachers and improve the effectiveness of online education in similar settings.

Implications:

The findings of this study underscore the need for ongoing support, training, and resources to improve the effectiveness of online education in similar contexts. It is crucial to provide teachers with the necessary training and professional development opportunities to enhance their digital literacy and pedagogical skills for online teaching. Additionally, addressing infrastructure gaps and ensuring reliable internet connectivity are essential to enable seamless online instruction.

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