Emergency Remote Teaching in a University English Language

Teaching Programme: A Study of Teachers' Beliefs

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Abstract

The aim of this qualitative study was to explore, identify and describe teachers' beliefs and perceptions regarding the abrupt adoption of online distance learning to deliver courses in the English language teaching programme at a Palestinian university that implemented emergency remote teaching (ERT) in response to the forced discontinuation of face-to-face instruction during the COVID-19 pandemic. A grounded theory research approach was framed within a conceptual lens based on three paradigms drawn from the literature on preparing teachers to integrate technology into their practices: the TPACK Framework, the Technology Acceptance Model, and the Kiely Model of Pedagogical Innovation. Topics of research interest included teachers' perceptions of the challenges, benefits, and drawbacks associated with e-learning as experienced during the implementation of ERT-style English language teaching methodologies in a Palestinian higher-education context. Additional objectives included (a) evaluation of the landscape of obstacles and possibilities relevant to the potential adoption of e-learning by the university English language teaching programme as a tool to support student learning and teacher professional development, and (b) remediation of the lack of empirical research findings that are available to be leveraged in support of the design and implementation of online teaching and learning in developing country education systems, and in English language teaching programmes in particular. The primary data collection instruments comprised a series of semi-structured interviews conducted with five Palestinian teachers of English as a foreign language during their engagement in pandemic ERT. Qualitative thematic analysis of this teacher interview data produced answers to the five research questions that guided the study, and also revealed a number of additional findings. The research uncovered an overarching theme of teacher uncertainty regarding the effectiveness of ERT in supporting their ability to meet intended student learning objectives, and their students' achievement of positive learning experiences and outcomes. The findings also showed that the initial transition to e-learning was particularly challenging, and the ongoing process of teaching online with inadequate preparation and institutional support entailed significantly increased investments of time and labour by the teachers. The move to virtual classrooms also produced direct impacts on teacher roles, student motivation, assessment strategies, and general English language teaching practices. Moreover, community as well as institutional hard- and soft-infrastructures were inadequate to the task of reliably supporting effective online distance education. However, the

teachers eventually adapted their practices and came to believe that delivering courses via online distance e-learning is potentially very useful in the Palestinian context if lessons learned from emergency remote teaching are leveraged to support development of properly-designed online education systems and programmes.

Dedication

In the Name of Allah, the most Compassionate, the most Merciful

I dedicate this work to my late father may he rest in peace. His guidance continues to inspire me every day.

I am profoundly grateful to my husband, Ali, whose unwavering emotional and mental support made this achievement possible. Your belief in me never faltered, even in the face of challenges.

To my cherished children, Adam, Sarah, and Yasin, you are my constant motivation and source of joy. Your understanding and patience throughout this journey mean the world to me.

Additionally, I extend this dedication to my dear mother, whose love and encouragement shaped me into the person I am today. And to my sisters and brothers, your unwavering support has been a beacon of strength.
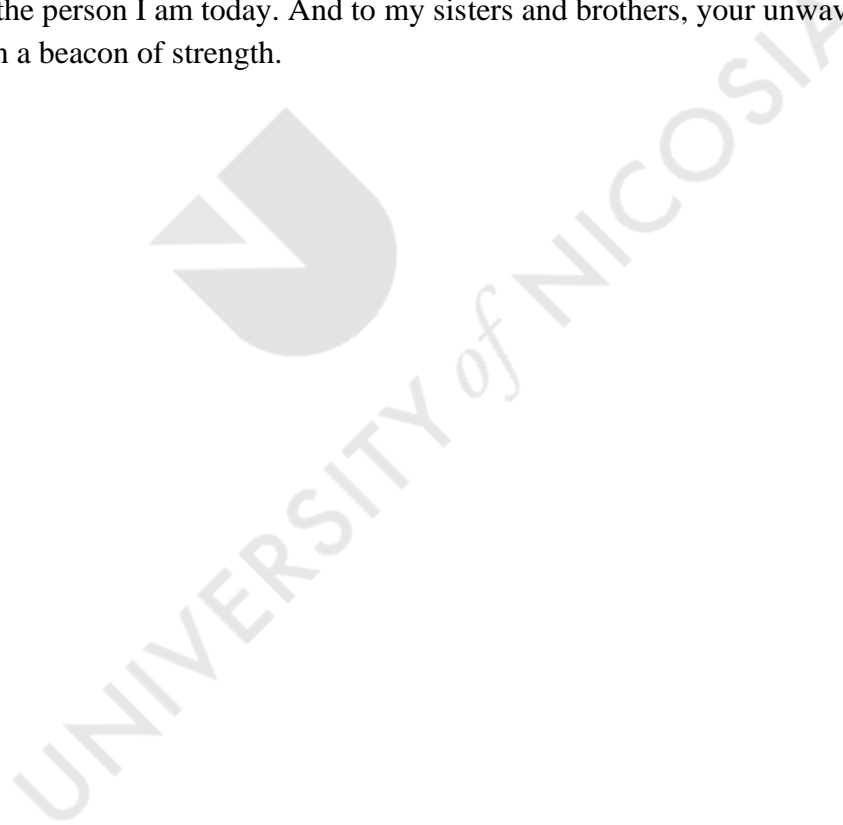
Acknowledgements

I would like to convey my heartfelt appreciation to my main supervisor, Dr. Christopher Alexander, whose constant guidance and support have been invaluable throughout the process of developing this thesis. This work would not have been completed if not for his expert supervision.

I am also grateful to Coordinator of the TESOL PhD programme Dr. Christine Saviddou, whose extraordinary support and guidance have greatly aided the completion of my project. Furthermore, I am grateful to my colleagues and the university administration at The University for graciously accommodating my research within the limits of my workplace. Their persistent support and facilitation have been critical in completing my academic pursuit.

Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Nicosia. This thesis has been composed solely by myself except where stated otherwise by reference or acknowledgment. It has not been previously submitted, in whole or in part, to this or any other institution for a degree, diploma or other qualifications.

Signed …......…………………………

Date   06/06/2024

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Abbreviation Index

AI *Artificial Intelligence*

ATT *User Attitude*

CALL *Computer-Assisted Language Learning*

CCM *Constant Comparative Method*

CLT *Communicative Language Teaching*

CMC *Computer-Mediated Communication*

CSE Com*puter Self-Efficacy*

DCALL *Distance Computer-Assisted Language Learning*

EAP *English for Academic Purposes*

EFL *English as a Foreign Language*

ELT *English Language Teaching*

ERL *Emergency Remote Learning*

ERT *Emergency Remote Teaching*

ESP *English for Special Purposes*

F2F *Face-to-Face*

GBR *Google Breakout Rooms*

GC *Google Classroom*

GM *Google Meet*

GMT *Grounded Theory Method*

HEI *Higher Education Institution(s)*

ICT *Information and Communication Technology*

IS *Information Systems*

IT *Information Technology*

ITU *International Telecommunications Union*

L2 *Second Language*

LMS *Learning Management System*

MALL *Mobile-Assisted Language Learning*

MENA *Middle East and North Africa*

MOEHE *The Palestinian Ministry of Education and Higher Education*

MOOC *Massive Open Online Course*

OLE *Online Education*

PBL Pr*oject Based Learning*

PEU *Perceived Ease of Use*

PNA *Palestinian National Authority*

PU *Perceived Usefulness*

QOU *Al-Quds Open University*

SDG *Sustainable Development Goals*

TA *Thematic Analysis*

TAM *Technology Acceptance Model*

TIM *Technology Integration Matrix*

TPACK *Technological Pedagogical and Content Knowledge*

TRI *Technology Readiness Index*

UNESCO *United Nations Educational, Scientific and Cultural Organization*

UNESCO-GEC *UNESCO Global Education Coalition*

UNESCO-IESALC *United Nations Educational, Scientific and Cultural Organization International Institute for Higher Education in Latin America and the Caribbean*

UNGA *United Nations General Assembly*

UNIC *University of Nicosia*

UTAUT *Unified Theory of Acceptance and Use of Technology*

VLE *Virtual Learning Environment*

WBU *West Bank University*

WFA *Word Frequency Analysis*

WHO *The World Health Organization*

CHAPTER 1: INTRODUCTION

1.0 Introduction

This dissertation reports a qualitative research project designed to explore the experiences, beliefs, and perceptions of five English as a foreign language (EFL) teachers as they worked through the period of the COVID-19 pandemic emergency in a university English language teaching (ELT) programme. The study was carried out at a relatively new higher education institution (HEI) in the West Bank region of the State of Palestine. This chapter begins with an overview that introduces the general setting and specific site of the research project, then describes the unique conditions existing when the study was conducted. Next, the rationale for carrying out the study is presented. Sections on the research problem and the objectives of the study follow, then the research questions intended to accomplish those objectives are presented. The last sections in the chapter argue the significance of the study's contributions to the literature and to practice. A final summary explains the researcher's aims and ideals in carrying out this research project. The chapter concludes with a chapter-by-chapter outline of the thesis.

1.1 The Research Setting: An Overview

The State of Palestine is an impoverished country in a region that has been the conflict-torn nexus of diverse cultures, ancient religions, colonial ambitions, international commerce, and geopolitical manoeuvring for thousands of years. Journalist, author and historian Jacob De Hass (1872–1937), one the founding fathers of political Zionism, describes the classical land of Palestine as being 'black with [holy] sites—Jewish, Christian, and Muslim,' and bearing 'the burden of this holiness' has been a trial that has rendered Palestine 'often catastrophically stricken' (De Hass, 1934, p. 4).

According to the October, 2023 World Bank *Middle East and North Africa: Macro Poverty Outlook*, the percentage of Palestinians living below the upper-middle income poverty line ($6.85 per day as measured in 2017 dollar purchasing power parity) in 2023 was estimated at 26.1%. Approximately 1.25 million people out the 5.0 million total population of Palestine were determined to be living in poverty in 2023. This number has since climbed due to waning of the post-pandemic rebound and increased Israeli restrictions on Gaza. There is also significant inequity within the country, with the most recent national household income survey indicating 46% of the Gaza population as falling below the poverty line in 2016/17; this compares to a 9% poverty rate among West Bank residents. Slow growth and high poverty rates are expected continue to hamper the Palestinian economy, with average real income per capita stagnating due

to the rate of population growth (The World Bank, 2023).[1]

In addition to enduring these conditions of economic disadvantage, Palestinians must live, work, and study in a context marked by frequent episodes of lethal violence. As is the case with the Israel/Hamas war ongoing at the time of this writing, these often occur in the form of organised armed conflict between the Israel Defence Forces and Izz ad-Din al-Qassam Brigades, the military wing of the Islamic Resistance Movement, Hamas. Random acts of aggression authored by members of these two groups as well as other factions and individual actors from both the Israeli and Palestinian sides are also an unfortunate fact of life in Palestine and Israel.

The State of Palestine is governed by the Palestinian National Authority (PNA), established on May 4, 1994 as an outcome of the Oslo Accords. The PNA exercises partial civil control over the Palestinian enclaves in the Israeli-occupied territories in the West Bank region of Palestine ('Palestinian Authority,' 2024;). The 1995 Oslo II Accord established the administrative division of the Palestinian West Bank into areas A, B, and C (see Figure 1.1) as a transitional arrangement, pending a final status agreement (Anera, 2024). The PNA has full civil and security control over only 18% of the West Bank (Area A) and manages civil affairs in around 21% of the West Bank (Area B), with security under Israeli control. The remaining 61% of the West Bank is under full Israeli military administration (Area C) (Anati, 2020). Area C includes most of the geographic West Bank and is home to about 300,000 Palestinians and 400,000 Israeli settlers, with 60% of the area designated for military use or nature reserves. Many Area C Palestinian communities face significant challenges, including a lack of primary schools, inadequate water access, and limited healthcare access (Anera, 2024).

The Palestinian Authority also controlled the Gaza Strip until 2006, when Hamas took *de facto* control of Gaza even though the PNA has continued to claim authority over the area ('Palestinian Authority,' 2024). After capturing a majority of seats in the Palestinian Legislative Council elections of January 25, 2006, Hamas party leaders were subsequently blocked by various stakeholders and factions from taking power in the Council ('The 2006 Palestinian Legislative Election,' 2024). Hamas went on to seize total control of the Gaza Strip in June, 2007 during post-election political turmoil and armed conflict with Fatah, the Palestinian nationalist and social democratic political party that lost its majority to Hamas in the 2006 election (Abu Toameh, 2008; 'The 2006 Palestinian Legislative Election,' 2024).

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[1] Note that this reporting predates the catastrophic conditions induced by the 2023 Israel/Hamas war.

Figure 1.1: *Occupied Palestinian Territories*
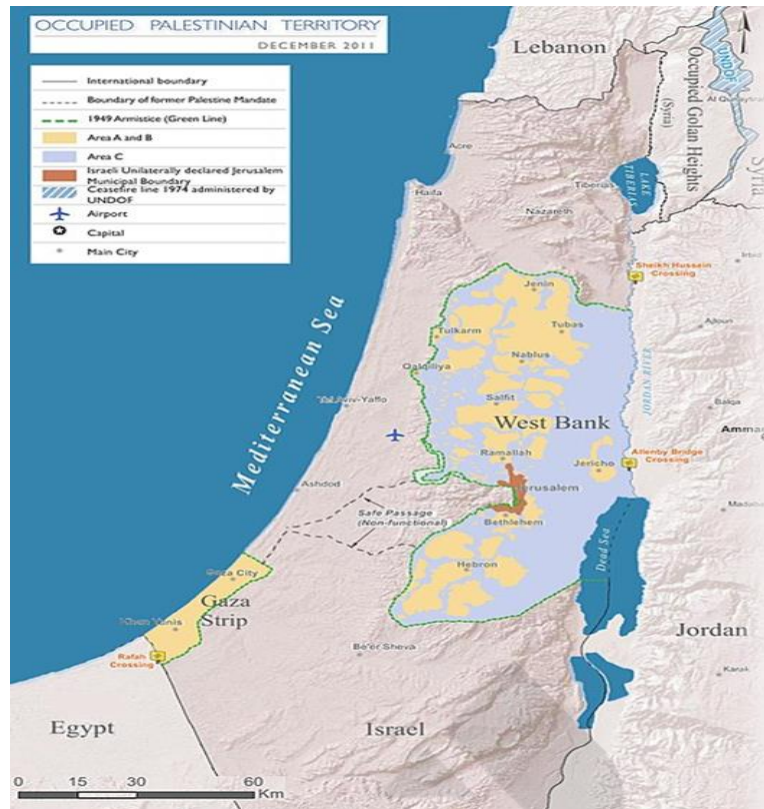
The research site for the present study, a Palestinian HEI herein pseudonymously referred to as West Bank University (WBU) or simply the University, was created by the Palestinian National Authority. According to a description of the school's founding on the WBU website, beginning from its initial establishment, the PNA emphasised the development of state institutions pursuant to a belief that strong and effective state institutions were foundational to a Palestinian state that would be able to overcome whatever challenges it might arise. As part of those development efforts, a tertiary learning institution named the Palestinian Academy for Security Sciences was founded in 1998. When the institution was formally dedicated as a university by Palestine's President Mahmoud Abbas in 2007, the Academy was renamed West Bank University. In 2020, approximately 144 WBU faculty members served about 2,000 enrolled students. All faculty and students are Palestinian nationals, and the students, 22% female and 78% male, all come from the West Bank and the region's northern cities in particular. The students receive subsidised tuition at WBU and pay only minimal fees.

Accredited by the Palestinian Ministry of Education and Higher Education (MOEHE) and financed by the Palestinian Government, WBU is the newest Palestinian government university, and the first and only institution in the country specialising exclusively in the fields of security, military, and police sciences. According to the West Bank University Strategic Plan 2017–2020, the institution offers Bachelor's degree programmes in the following fields: Humanities including Psychology, Security Sciences, and English with Hebrew minor; Law and Criminology; Management Information Systems; General Administration; and Military Sciences. A Master's degree programme in Administration is available, as are professional diploma programs in various branches of security, military and police science.

The WBU Department of Languages, where the researcher and participants in this study work, was established in 2014. The Department hosts 14 language teachers: 8 English teachers, 4 Hebrew teachers, 2 Arabic teachers, and 1 French teacher. Of the eight instructors in the ELT Department, six hold PhDs in English literature and linguistics. The ELT Department enrols around 90 students, and all undergraduate students at WBU are required to take English 100, 101, and English for Specific Purposes (ESP). The ELT Department's English/Hebrew minor programme is the first programme in Palestine specialised in teaching English and Hebrew languages. Programme objectives include graduating students who meet the professional and technical staffing requirements of Palestine's security institutions and are prepared to make effective contributions to capacity development at those institutions.

1.1.1 Education Under Quarantine

Despite a variety of efforts and initiatives aimed at development and improvement, the education system in Palestine struggles to adequately meet the challenges and demands of the modern socio-economic and political situation, and the standard teaching methods commonly employed in Palestinian education institutions fail to enhance the critical thinking skills and overall capacity of students (Ramahi, 2015). Schools in Palestine have also had difficulty accessing and adopting modern educational technology tools, and online teaching and learning remains in the developmental stage at most schools including the country's higher education institutions (Shraim & Crompton, 2020). This was the case at WBU, where the initial stages of a plan to expand digitalisation at the institution and begin implementation of digitally-mediated teaching and learning methods, including online course offerings, were underway in late 2019/early 2020 when the COVID-19 outbreak occurred.

On December 31, 2019, the Wuhan, China Municipal Health Commission website carried a media statement on cases of viral pneumonia in Wuhan. The World Health Organization (WHO) Country Office in the People's Republic of China picked up the statement as well as another report about the same cluster of cases of pneumonia of unknown cause in Wuhan from the ProMed infectious disease outbreak reporting system (WHO, 2021). On March 11, 2020, the WHO officially declared COVID-19 to be a pandemic, the first such designation since 2009, when the H1N1 influenza outbreak was assigned pandemic status (Cennimo, 2021; WHO, 2021).

As national and local governments across the world implemented quarantines and other measures intended to combat the spread of the disease, temporary school closures were initiated based on evidence and assumptions from historical influenza outbreaks that such closures can interrupt transmission by reducing social contacts between students (cf. Jackson et al., 2016). On March 24, 2020, the United Nations Educational, Scientific and Cultural Organization (UNESCO) reported that, according to their monitoring, nationwide school closures had been implemented in more than 100 countries, impacting over half the world's student population. Localised closures were in effect in several other countries, disrupting education for millions of additional learners (UNESCO, 2020a).

Prior the March 11 WHO pandemic declaration, the first cases of COVID-19 in Cyprus had already been identified in returning travellers on March 9, 2020 (Kakoullis et al., 2021). At the University of Nicosia (UNIC) in Nicosia, the Cypriot capital city, suspension of all official university-related international travel and all university events had been announced on March 6, 2020, but classes had not yet been cancelled at that time (UNIC, 2020a). On March 11, 2020 the Cyprus Ministry of Education, Culture, Youth and Sport, announced the closure of schools in Nicosia. Two days later, all other schools were ordered to close (Sofianidis et al., 2021). In response to the Ministry's action, on March 12, 2020, UNIC (2020b) announced that, as of Monday, March 16, all non-lab on-campus courses would move online via distance learning technologies and methodologies. Online courses currently in progress would continue to operate normally. Limited numbers of on-campus staff would remain available to maintain basic institutional operations.

Three days later, on March 15, 2020, UNIC (2020c) issued another announcement stating that online instruction would continue and on-campus student activities would remain at a halt until April 22, 2020 at the earliest. This announcement referred to a directive from the

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Cyprus Ministry of Education, Culture, Youth and Sport that extended restrictions on the activities of education institutions in Cyprus until April 10, 2020. The same message informed students of online training sessions scheduled for Monday, March 16 and oriented towards helping students learn how online classes would be run, how to attend videoconferences, and strategies for studying online (UNIC, 2020c). By this time, official Cyprus government pandemic policy had been emplaced directing the closure of the country to entry by non-residents beginning on March 16, 2020, with residents required to show a negative COVID-19 test for entry; non-emergency hospital admissions were canceled and schools and non-essential businesses fell under an official closure policy as of the same date (Kakoullis et al., 2021).

In Palestine, after 16 coronavirus cases were confirmed in Bethlehem, on March 5, 2020 President Mahmoud Abbas pre-empted the WHO pandemic designation by declaring a 30-day state of emergency in the West Bank (Government of the State of Palestine, 2020). At the same time, the Palestinian Authority emplaced movement and quarantine restrictions that included closure of all schools in both the West Bank and Gaza for an initial period of 30 days from March 5 to April 5 (Government of the State of Palestine, 2020). In the higher education sector, the closure affected all 49 universities, colleges, and junior colleges in the West Bank territories (Affouneh et al., 2021).

The Palestine Ministry of Higher Education and Scientific Research requested that all universities move courses online beginning from March 14, 2020, and all HEIs in the West Bank territories complied with this directive (Affouneh et al., 2021; UNESCO, 2023). Staff members at WBU and other universities began working from home to ensure that students could continue receiving the necessary education to complete the academic year. Of the eight major HEIs located in the Gaza governates, education in a few scientific disciplines continued in face-to-face mode, while the majority of programmes shifted to online format (Bashitialshaaer, Alhendawi, & Avery, 2021).

Specific procedures for the adoption and implementation of online e-learning varied across institutions. While each institution issued guidelines for moving to online learning, the precise details and execution of these guidelines depended on factors such as student and staff readiness and available digital infrastructure (Affouneh et al., 2021). Most institutions were flexible in allowing faculty to utilise various tools, platforms, and applications for communicating with students and supporting their academic progress. These include learning management systems (LMS) like Moodle and Google Classroom, video conferencing platforms

such as Zoom, and social media apps like WhatsApp and Facebook (Affouneh et al., 2021)

As noted above, many universities in Palestine, despite facing frequent closures and disruptions, have historically struggled to transition to online education due to financial constraints, limited technological resources, and other obstacles (Affouneh, 2008; Shraim & Crompton, 2020). As will be described in later chapters, the sudden transition to online distance e-learning[2] posed a range of challenges to administrators, faculty, and students at WBU and other Palestinian HEIs, and various strategies were implemented to overcome them, with similarly varying degrees of success.

1.2 Rationale for the Study

This thesis was originally conceived with the objective of examining a planned and gradual shift to the use of online teaching methodologies for some courses in the WBU Department of Languages. The research project was in the design and proposal stage when the COVID pandemic struck. The halt to face-to-face instruction and shift to ERT at the University represented a unique phenomenon that invited investigation. Therefore, I shifted my research focus to take advantage of the opportunity presented.

The cancelation of face-to-face classes at Palestinian HEIs and the mandate to move learning online called for a rapid, high-pressure transition to distance e-learning. WBU lacked the technological infrastructure needed to operate an e-learning programme, and many members of the instructional staff were not trained or experienced in the use of necessary technologies and methodologies. This crisis-driven adoption of what came to be referred to as emergency remote teaching or ERT (Hodges et al., 2020) at WBU presented an opportunity to investigate a rapid transition to a new implementation of e-learning for higher education in a developing country, at an institution with no prior experience with online education delivery. The results of such a study can provide many generalisable and readily-applicable practical insights into the process of launching a new e-learning programme in a situation that is less than ideal in terms of availability of reliable community and institutional data network infrastructure, adequate digital technology tools, prepared online-specific curricula and content, and a trained human resource base.

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[2] As used here, e-learning is a term that broadly refers to offering learners access to training, teaching, or tutoring via the use of digital electronic multimedia content (including recorded or real-time voice communications) delivered by means of networked digital technology including computers and mobile devices (as per Woollard, 2011).

Moreover, as Hodges et al. (2020), Milman (2020), Tafazoli (2021a) and many other authors point out, ERT is not the same as online education. Beyond the need for appropriate planning along with construction of technology systems, curricular structures, and content inventories, putting courses online entails effective teacher training in the development and implementation of e-learning pedagogy, a multi-stranded and complicated effort that should also take into account teacher needs, viewpoints, and preferences (Alexander, 2012; Hodges et al.2020; Koehler & Mishra, 2009; Tafazoli,2021a). Hodges et al. note that colleges and universities, administrators, instructors, students, and other stakeholders need to understand the important differences between ERT and online education. This study contributes to the building of such an understanding.

For online education developers and instructors, there are important lessons to be learned about the challenges and impacts educators might face during the hasty, poorly-planned implementation of a university-level online education programme or even an individual course. In an ideal world, such an instance should never occur, but natural disasters, military conflicts, and other disruptions to face-to-face (F2F) learning do occur, so it is useful to develop this area of educational technology knowledge by taking advantage of a rare, unforeseen event such as the COVID pandemic. The pandemic emergency represented uncharted territory, where adherence to policies and practices considered essential for online education development and delivery in normal conditions was generally not feasible, and many of the educators suddenly thrust into ERT did not enjoy conditions conducive to offering well-planned, quality instruction (Milman, 2020).

This study documents an adoption of online distance education for ELT in particular, a useful effort because the field needs to move beyond older conceptions of computer-assisted-language-learning (CALL) as being primarily lab- and classroom-based. The study explores the newly-expanding boundaries of CALL by investigating teachers' ability to adapt practice so as to effectively utilise fully-online ELT pedagogies—distance-computer-assisted-language-learning or DCALL as described by Lamy, (2013). The argument for expanding our DCALL knowledge base is supported by the recent rapid rise of mobile-assisted-language-learning (MALL) tools and pedagogies. MALL is the use of smart phones and other mobile technologies to aid or fully carry out DCALL-style language teaching and learning anytime and anywhere, particularly when portability and situated learning offer advantages (Kukulska-Hulme, 2013).

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The increasing global-scale ubiquity of internet access and use highlights the potential utility of DCALL and MALL in support of ELT and other language education efforts. As of April 2024, over 8.10 billion people live on Earth, and 5.44 billion of them (67.1%) use the internet (see Figure 1.2), with a year-on-year growth rate of about 3.4% (Kemp, 2024b). As the International Telecommunication Union (ITU; 2023) reports, 78% of the world's total population aged 10 and over owned a mobile phone in 2023, with around 133 million new mobile users coming onto the networks yearly. Thanks to the near-ubiquity of smart phone ownership, 96.3% of all internet users now go online via mobile phones (Kemp, 2024b), and mobile-broadband networks were already accessible to 95% of the global population in 2022 (ITU, 2022).

Figure 1.2: *Overview of Global Internet Use*
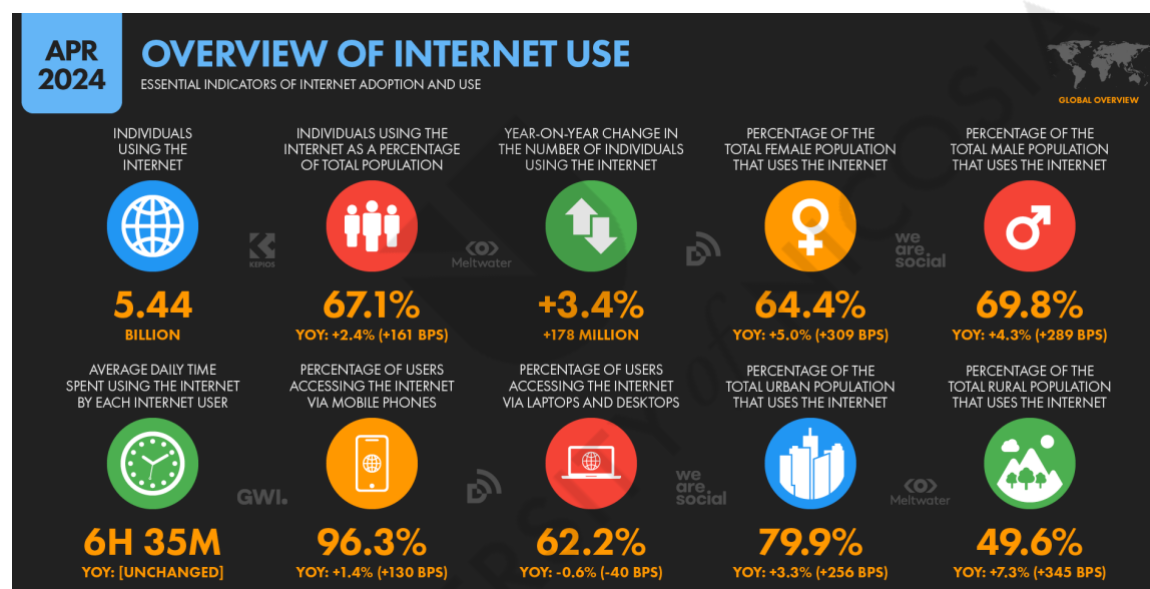
Note. From "Digital 2024 April Global Statshot Report," by S. Kemp, 2024, April 24, *Datareportal* (https://datareportal.com/reports/digital-2024-april-global-statshot). Reproduced by permission of the publisher, copyright by Kepios Pte. Ltd.

In all regions of the world, young people between 15–24 years old are the most active internet users (ITU, 2022). As of January 2024, internet users from the prime higher education student age cohort of 16–34 years old overwhelmingly used mobile phones to access the internet, with females (97.2%) at slightly higher representation than males (96.3%) (Kemp, 2024a). Young Arabs are known to be particularly active members of the mobile user group (Radcliffe & Abuhmaid, 2020). I contend that MALL/DCALL must be considered potentially useful as a supplemental tool particularly in developing countries where teachers often work in technology-poor language classrooms at schools in areas where fixed broadband internet access

is not dependable or available, and many students may face challenges accessing brick-and-mortar schools.

It is also necessary to examine teacher beliefs and perceptions regarding the value of online learning when used with students studying EFL in a developing country context. Teacher experiences in the form of engagement with ERT might be considered non-standard or less generalisable. However, in a case like that of Palestine, where the need to bridge disruptions in the F2F delivery of education frequently arises, information about the ways in which spending more than a year working in online ERT mode impacted the participant EFL teachers' beliefs about teaching and learning may be quite relevant. Teachers' beliefs, often studied within the broader topic of teacher cognition that includes attitudes, knowledge, and other related constructs, have long been a focal point of language teaching research interest (Borg, 2015a, 2015b). Researchers who have conducted comprehensive literature reviews on the effects of teacher beliefs on English language teaching and learning processes have concluded that the beliefs teachers hold affect their attitudes towards practice, the things they do and accomplish in the classroom, and the beliefs their students develop (Xu, 2012). By influencing teaching strategies and tactics adopted for coping with challenges, teacher beliefs shape the learning environment, the learners' experiences, attitudes, motivation, and ultimately, language learning outcomes (Gilakjani, & Sabouri, 2017; Xu, 2012).

Returning focus to the local scale, there is a need to contribute to technology development plans at the research site, West Bank University. The data generated can reveal areas in the realms of technology, pedagogy, content, and practical methodology that require focus and development on institutional and departmental levels in order to ensure the success of the University's technology initiatives. In addition, the results of this study can support reflection on WBU teacher readiness to integrate technology into their practices, on the specialised knowledge required, and the types and amounts of professional development work needed to attain basic required proficiencies.

Finally, an extended review of the body of literature on education and ERT as they appeared during the COVID pandemic reveals that it quickly increased in volume beginning from the first months of the emergency. However, this dissertation-level research exploration of the experiences, beliefs, and perceptions of five English language teachers working in the Department of Languages at WBU during the University's 16-month reliance on online ERT

methodologies stands alone in its breadth of longitude and as the only work of this type in the ELT field.

1.3 Education in Palestine: An Ongoing State of Emergency

The ongoing Israeli-Palestinian conflict has significant effects on education in Palestine. Students and teachers alike struggle with many disruptions in their efforts to access education and training opportunities. Frequent mobility restrictions and school closures are facts of life in the country (Kayed, 2013). When schools are open, arbitrary curfews, more than 700 road obstacles including 140 checkpoints, and the difficulty of moving between and within the West Bank, Jerusalem, and the Gaza Strip are factors that limit staff and student mobility and so disrupt courses and learning (Haddad, 2021; Kayed, 2013). Difficulties getting safely to school lead to increased drop-out rates, a problem that disproportionately affects female students because parents are concerned about the time girls spend traveling to school, exposed to dangers including humiliation and abuse at the hands of Israeli soldiers (Ministry of Education and Higher Education Palestine, 2008).

Compounding the difficulty of getting to school, the Israeli-constructed separation wall, or Israeli West Bank Wall, looms over all aspects of existence in Palestine. The Wall extends for 700km, cutting through cities and villages, creating a barrier to movement, blocking access to businesses and agricultural lands, and separating teachers and students from their education institutions (Haddad, 2021; Kubovich, 2021). Construction on the Wall began in 2002; soon after that, a study of the Wall's effect on education in Palestine revealed that 72.1% of households with students in higher education and 69.4% of those with students in basic/secondary education reported absenteeism induced by effects associated with the barrier Wall and its accompanying security regime (Mac Allister & Gassner Jaradat, 2006).

E-learning has long been suggested by Palestinian educators as a solution to the conflict-related difficulties affecting education in the country (Kayed, 2013; Shraim & Khlaif, 2010); as noted above, uptake has been slow and halting. Viewed within the framework of daily life in Palestine, where educational activities are carried out in a context of near-constant difficulty and disruption, the COVID pandemic emergency merely represented one more challenge. It even had a positive effect in that the emergency school closures forced the adoption of modern educational technology and delivery modalities; this acted as a lever to pry open minds that had been closed to the e-learning paradigm and induce awareness of its potential value (Jawabreh,

2020; Karsh, 2021; Shraim & Crompton, 2020).

1.3.1 E-Learning in Palestine: A Tentative Embrace

Shraim and Khlaif (2010) describe e-learning as 'a necessity rather than a luxury to improve access to quality education for all Palestinian students' (p. 160). Kayed (2013) also views such programmes as a necessity rather than an option in the country's volatile environment where students are often prevented from reaching their universities and attending classes. Information and communication technology (ICT) in general has been considered indispensable as a tool to remediate the effects of conflict-related social and educational disruptions in Palestine (Kabilan & Rajab, 2010), and the use of ICT to maintain communication and connections in a fragmented society has been a staple policy recommendation from international development agencies (Shraim, 2012).

Beginning around 2005, many donor-funded e-learning projects were initiated in Palestine, and an initial rapid growth of e-learning occurred across the higher education sector, with almost all universities offering some type of online education (Shraim, 2012). The first decade of the 2000s was the formative period for e-learning in Palestine, when various EU-supported initiatives aided An-Najah National University, Birzeit University, Al-Quds Open University (QOU), and other HEIs in the development of network infrastructure and e-learning programmes (Affouneh & Raba, 2017; Mikki & Jondi, 2010; Shraim, 2012).

In 2010, Mikki and Jondi (2010) reported that most Palestinian universities were working either independently or with support from international organisations such as the British Council, the Japan International Cooperation Agency, and various EU-supported initiatives to establish e-learning centres as a way to enhance the traditional educational system and alleviate the effects of conflict-related disruption. According to Mikki and Jondi, at that time, Palestinian institutions of higher education had deployed learning management systems, virtual labs, multimedia production, video streaming, and electronic exams. Web 2.0 tools such as Wikis, blogs, podcasts, video sharing sites and other interactive technologies were being used to facilitate blended learning strategies as well as a limited number of fully online courses (Mikki & Jondi, 2010).

During this same period, Kabilan and Rajab (2010) conducted a study of internet use by English language teachers in Gaza, Palestine. A survey of 274 teachers working in government primary and secondary schools revealed that 130 of them had access to the Internet and had used

online resources for classroom teaching and learning activities or for professional development purposes including literature searches and idea sharing with other teachers. Barriers to the use of online resources included time limitations, accessibility, and lack of appropriate facilities. The researchers called for increased technology funding, the introduction of technology and CALL pedagogy training for teachers, and increased administrative support.

According to Shraim (2012), Birzeit University was the first institution in the region to connect to the Internet. In 2002, Birzeit launched the *Ritaj* portal that allowed students to handle administrative tasks such as registration and grade checks, access library and course materials, and communicate with their instructors. By 2005, The Unit for Learning and Innovation at Birzeit was collaborating with a consortium of European universities to develop a series of online courses, and by 2012 the Moodle LMS was in use at Birzeit.

Al-Quds Open University is another example of a successful regional e-learning initiative. Founded in 1985 in Amman Jordan and established Palestine in 1991, QOU is the Arab World's first open and distance learning university (Mikki & Jondi, 2010). To further its mission of supporting students affected by disability, mobility challenges, and the Palestinian diaspora, QOU has embraced online education as a key strategy (Mikki & Jondi, 2010). In 2008, QOU began a transition from correspondence-based distance learning to e-learning with the founding of the QOU Open Learning Centre—according to its web page, 'an educational and technological centre for developing and enhancing digital learning environment at Al-Quds Open University' (Al-Quds Open University, 2021, Overview section).

The Ministry of Education and Higher Education Palestine (2017) has undertaken a number of initiatives to work toward modernising the country's education system, often in partnership with NGOs and other outside organisations in the international development and humanitarian sectors. The MOEHE has also taken steps to implement a digitalisation policy in the education system with the aim of leveraging the latest technological developments in support of teaching and learning (Khlaif, 2018). See Table 1.1 for examples of some of the MOEHE efforts to this end as described by Shraim (2018).

In Palestine, as in many other places in the Arab world, basic practical difficulties also stand in the way of successful deployment and acceptance of fully-online learning. For example, acquiring sufficient technological capacity, developing necessary electric power and ICT infrastructures, ensuring widespread reliable network connectivity, securing adequate institutional resources, and building requisite technical capabilities on the part of prospective

users are difficult if not impossible in many settings (Bhuasiri et al., 2012). Electricity outages are common in Palestine, particularly in the Gaza Strip (Al-Gherbawi, 2022), and teachers often struggle with expensive and unreliable internet connections (Bashitialshaaer, Alhendawi, & Avery, 2021; Moghli and Shuayb, 2020). It is not uncommon for Israeli and Palestinian authorities to use internet content censoring and access limitation up to complete shut down as means of control and/or punishment (Cristiano, 2019; Kreitem, 2020). Taken as a whole, infrastructure conditions in Palestine are generally not optimal for the dependable delivery of any form of e-learning.

Table 1.1: *Key E-Learning Initiatives of the Palestinian MOEHE*

MOEHE Initiative	Features
Seed (2012)	Supported by Japan International Cooperation Agency, Seed aims to provide training in the use of ICT to science teachers.
Leadership and Teacher Development programme (2012)	AMIDEAST-administered initiative aims at building the capacity of elementary- and secondary-school teachers to deliver learner-centred education.
NetKetabi (2012)	Multi-dimensional opportunity for the children and youth of Palestine to acquire 21st-century skills. Primary aim is providing over 280,000 netbook computers to Palestinian children and youth.
AbjadNet (2013)	Supported by the Palestinian telecom company PALTEL, the program aims to provide necessary ICT infrastructure including computers and Internet access for all public schools.
Digitalization of Education (2016)	Supported by AMIDEAST, Coca-Cola, PALTEL and local governments, this program seeks to enhance teachers' technological capabilities.
Smart Learning (2017)	Primary objective is to replace traditional classroom teaching and learning practices with technology-enhanced practices.
Injaz (2018)	Program to incorporate technical and vocational curricula in public education.

The adoption of online education in Palestine is also affected by cultural factors that tend to hamper digital initiatives in many Arab education systems. Across the Arab world, online learning has generally been marginalised, unrecognised and suspended, with educational systems still biased toward traditional face-to-face teaching methods (Faek, 2020; Hamamra et al., 2021). In many Arab countries including Palestine, online learning is seen as being more vulnerable to fraud and cheating than traditional education (Hijjawi, 2013; Jawabreh, 2020; Muhammad, Shaikh, et al., 2020). It is generally not viewed as an effective approach to learning (Shraim & Crompton, 2020). The selection of fully online degrees available in the region is limited, suggesting reluctance to invest in online education on the part of most universities and governments (Abdulla Al Ghurair Foundation for Education, 2020). Diplomas and certificates

earned via online courses, even those from Western institutions obtained by foreign professionals working in the Gulf region, are in many cases not recognised by governments or accepted by employers. For example, in the United Arab Emirates, Qatar, and Saudi Arabia, online/distance education degrees regardless of the issuing institution cannot be authenticated and holders cannot be licensed or employed (Ziegler, 2022).

Similar to faculty in other cultural contexts, Arab faculty members are often resistant to change and reluctant to incorporate digitally mediated methods and materials into their pedagogical approaches (Al Senaidi et al., 2009; Raygan & Moradkhani, 2020; Tafazoli, 2021b). As institutions in Palestine shifted to online teaching during the pandemic emergency, some Palestinian university administrators went on record with the opinion that distance learning was appropriate only as a temporary solution to be adopted solely for dealing with the situation at hand (Jawabreh, 2020). Mustafa Abu Safa, vice president for academic affairs at Polytechnic University in Hebron, West Bank Palestine, noted that 'Not all professors, nor all students, agree with this teaching method, but the situation forced us to use distance learning' (Abu Safa, in Jawabreh, 2020, A Hasty Switch section). This comment evidences an attitude or condition that is prevalent in Arab countries (Faek, 2020; Hamamra et al., 2021; Shraim, 2012), but does not necessarily reflect the attitudes of students in the region.

A recent survey of more than 1,000 Arab university students produced results that contrast with the overall negative stance often apparent among Arab education policy makers, institutional administrators, and faculty regarding online education. The findings revealed that more than 55% of the respondents had participated in at least one online education course. The students tended to take short technical training and skills certification courses offered on massive open online course (MOOC) platforms such as Coursera or EdX that originate from outside the Middle East and North Africa (MENA) region (Abdulla Al Ghurair Foundation for Education, 2020). Governmental, institutional, and social hesitancy aside, the delivery of online course options if not full degrees is gradually gaining acceptance among higher education institutions in many Arab countries, particularly in wealthy nations such as Saudi Arabia, The United Arab Emirates, Kuwait, and Qatar (Hamdan, 2014). However, offering classes and programmes in fully online mode is still not a well-established practice at any level of the Palestinian education system (Shraim & Crompton, 2020).

1.3.2 Adopting E-Learning at West Bank University

The State of Palestine National Policy Agenda and development plan 2017–2022 (Government of Palestine, 2016) drew on the framework of the United Nations' *2030 Agenda for Sustainable Development* approved at the United Nations 2015 New York Summit (United Nations General Assembly [UNGA], 2015). In April 2017, the Palestine Ministry of Education and Higher Education issued the *Education Sector Strategic Plan 2018–2022* (MOEHE, 2017) that makes note of the UN Sustainable Development Goals (SDGs) and aligns the objectives of the MOEHE with the education-specific SDG 4—'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'— (UNGA, 2015, p. 14) and its Targets 4.1–4.7 as shown below:

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes;

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education;

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university;

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship;

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations;

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy;

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development (UNGA, 2015, p. 17; Emphasis mine).

The MOEHE 2018–2022 plan acknowledges that the Palestinian education system 'is required to respond to the rapidly changing labour market, technology development, urbanization, migration, political uncertainty, environmental and natural disasters, lack of natural resources, demographic challenges, increasing unemployment, poverty, increasing disparity and risks threatening peace and security' (MOEHE, 2017, p. 30). The plan links

development in the education sector with development in other sectors of Palestine's economy including the ICT sector. In relation to this, the plan states that:

> The Ministry of Education and Higher Education moves towards digitalizing education to make milestone change in the educational process. It intends to employ technology for the service of education based on four components. Three of these components depend on the infrastructure of communications and information technology as well as technology equipment (internet, portals, computers). The fourth component is teachers. (MOEHE, 2017, p. 31).

In August 2020, the MOEHE, now renamed the Palestine Ministry of Education (MOE), issued an *Education Sector Strategic Plan: Updated Strategy* (MOE, 2020) that elaborated on the commitment to achieve the United Nations Sustainable Development Goals, expanded on strategies for reaching related SDG Targets, and restated the digitalisation goals of the 2018–2022 strategic plan as well as the vision adopted for the educational sector in Palestine—the attainment of 'A Palestinian society that has values, culture and technology to produce knowledge and employ it for its liberation and development.' (MOE, 2020, p.87).

In line with the objectives proposed in the MOEHE *Education Sector Strategic Plan 2018–2022*, the *West Bank University Strategic Plan 2017–2020* outlined an agenda that included developing and implementing ICT systems to afford digitalisation of libraries, classrooms, science departments and laboratories, and university administrative departments. University administrators stipulated a timeline of three years (2017–2020) for the development of a relevant strategic plan and the implementation of related policy directives leading to achievement of project objectives. As the MOEHE 2018–2022 strategic plan called for all HEIs to make the necessary technology for digitalisation available, WBU administrators began work by enhancing the school's existing Information Technology (IT) department and proceeding to equip lecture halls with computers, projectors and smart boards. In addition, plans were made to establish 11 computer labs equipped with desktop computers, microphones, digital cameras, and projectors. According to the WBU *Strategic Plan 2017–2020*, intentions were to make a gradual shift to increased implementation of e-learning, and eventually, move to offering a selection of online courses.

In order to begin building knowledge and experience relevant to the implementation of a distance e-learning programme, WBU administrators authorised members of the faculty of Information Technology to make arrangements and provide support for teachers and students to

join in a spring 2020 virtual exchange project coordinated under the auspices of the Erasmus+ EU programme for education, training, youth, and sport (https://erasmus-plus.ec.europa.eu/). Participation in the Erasmus+ collaborative online education programme would offer WBU students enrolled in the Department of Languages' English language/Hebrew minor programme opportunities to interact synchronously with other students around the world including native English speakers. Discussion of issues related to culture, identity, and life experience would afford language practice while also building the participants' intercultural awareness and understanding, and helping them develop key 21st century skills such as leadership, analytical thinking, constructive engagement across differences, and collaborative problem-solving.

Co-funded by the Erasmus+ EU programme along with eight other HEI and training development agency partners from five different countries and slated for implementation in the academic year 2019–2020, the programme was titled *Teaching English as a Foreign Language in Palestinian Higher Education Institutions: An e-Learning Initiative that Bridges Educational and Socio-Political Gaps (TEFL-ePAL)* (ERASMUS+TEFL, 2024). TEFL-ePAL was a three-year-initiative lead by Al-Quds Open University. According to the project team statement, the goal of TEFL-ePAL was to 'implement initiatives that develop learners' linguistic capacity, skills, and English language excellence, aiming to bridge the educational and socio-political gaps, and enhance modernization, internationalization and lifelong learning' (ERASMUS+TEFL, 2024).

A primary project objective was the development of flexible curricula, including F2F and online courses, oriented towards offering unrestricted access to all learners including those with special needs and conditions, working students, and women with cultural and home-duty related restrictions. Other aims included capacity building for academic and technical teams at Palestinian partner Universities, various dissemination activities including the transfer of knowledge and best practices from European partners to Palestinian partners, the establishment of modern language learning centres, and the development of four textbooks (with accompanying e-book versions) customized to suit the context and culture of Palestine and designed to integrate technology into the English language teaching/learning process in a blended-learning model (ERASMUS+TEFL, 2024).

Despite these efforts made towards digitalisation at WBU, little had been accomplished by late 2019/early 2020 when COVID-19 disrupted all pre-existing plans in Palestine, the EU, and around the globe. Primarily as a result of the recent initiatives, WBU had an IT department,

a website, online registration facilities, and a student email system when COVID struck. WiFi connections were available throughout the institution, and as noted above, computers and associated presentation technology had been emplaced in classrooms and lecture halls. However, the situation at WBU was much like the common scenario described by Obaid et al. (2020) based on their survey of 27 administrators and academics from leading Palestinian HEIs regarding institutional readiness for ERT and changes being made in response to the need to move online. Technology was in place but there appeared to be a widespread lack of the capability, motivation, and support needed to put the tools into anything beyond minimal use. When teachers at WBU were forced to embark on their ERT journeys, student email accounts had not even been activated, and by my own observations, there had been little uptake of classroom technology use on the part of WBU faculty including among my colleagues in the ELT Department.

Consider this recent evidence that can also support accurate inferences regarding the state of digitalisation at WBU going into the pandemic ERT regime. In the spring of 2021, with one year of engagement in online ERT completed at WBU and the pandemic school closure still in effect but nearly at an end, one computer lab was completed and opened in the Humanities Department facility. Only the faculty members involved in the lab development project received any training in the use of the lab, and what began as a planned schedule of weekly lab sessions by these trained instructors was soon abandoned. At the time of this writing, as far as I know, no one uses the lab. So even after gaining faculty experience and further developing institutional infrastructure during ERT, instructional practice at WBU has mostly returned to the pre-pandemic status quo ante.

Quite literally to status quo ante bellum in fact, because the October 7, 2023 beginning of the Israel/Hamas war caused an immediate re-closure of all HEIs in the West Bank territories, with 138,800 students affected and all HEIs returning to ERT programmes (Sawahel, 2023). Most institutions including WBU rescinded these closures in less than 3 weeks, leaving teachers like myself to face commutes to work that increase our exposure to missile and rocket attacks and force us to endure 5-hour waits under the muzzles of loaded rifles at the security checkpoints. The simplest conclusion is that a majority of administrators and faculty at Palestinian HEIs simply do not want to fully embrace online distance e-learning regardless of the exigencies we face. As Obaid et al. (2020)

1.3.3 Shifting the Focus to ERT

In March 2020, schools in Palestine entered the pandemic emergency closure regime as described in Section 1.1.1. above. Media reports at the time indicated that HEIs across the MENA region were making hurried plans to continue classes in online and blended modes, with the move online to be implemented in most cases via existing public web applications such as Zoom and Google Hangouts (Jawabreh, 2020). Administrators at WBU convened to discuss the development of strategies for the provision of off-campus, non-contact local access to courses and other university resources for currently enrolled students. The objective was to find a way to support the ongoing operations of the university during lockdown and social isolation conditions with minimal disruption to the teaching and learning processes. However, the University lacked a learning management system and other components of digital infrastructure required for the delivery of online classes and associated features of e-learning.

The situation at WBU was not unusual; as previously described, even though higher education digitisation and e-learning initiatives have been underway in Palestine for over a decade, various factors disrupt and impede progress, so uptake remains uneven. As Jawabreh (2020) describes it, most Palestinian universities had not previously been able to offer any accredited fully-online courses before the pandemic emergency but generally had students' e-mail addresses and offered ways to do simple tasks such as uploading assignments in what were optimistically called e-classes. Obaid et al. (2020) report that 'Many universities are developing specific strategies in reaction to the massive shift towards using technology, yet lack the vision, capability or commitment to implement them effectively' (p. 1).

Some local universities have provided access to LMS platforms such as Blackboard, Canvas, or Moodle, but in many cases only a rudimentary framework of technology adoption is in place (Obaid et al., 2020). The platforms have commonly been used in a manner that delivers little benefit to administrators, teachers, or students; they are instead simply repositories where lecture notes and other documents can be stored, downloaded, and uploaded. Little investment has been made in offering the required professional development and undertaking the necessary changes in institutional culture needed to use these tools effectively (Obaid et al., 2020).

Administrators at WBU decided that employing a suite of web-based tools centred around the publicly-available Google Classroom (GC) and Google Meet (GM) applications would be the most expedient way to get an ERT-style e-learning initiative up and running (see Appendix I: Google Classroom, Google Meet, Google Breakout Rooms). This was a common

scenario during the shift to pandemic ERT, particularly in developing countries (Clarin & Baluyos, 2022; Nambiar, 2020; Thorne, 2020). In support of this effort, a WBU E-Learning Unit was formed, with a departmental web page offering a mission statement and listing tasks as follows:

> In the situdation [*sic*] of the urgent need for the means of online learning and the direction of [WBU] administration towards developing educational methods, integrating technology and shifting towards the concept of the smart university, it became necessary to establish an e-learning unit, in order to provide all the requirements of this process. The E-Learning unit aims to provide e-learning using systems and technological tools, within the capabilities and needs of the university and in a manner commensurate with its special status as a security institution.

As described on the web page, tasks to be undertaken by the unit include:

- Providing e-learning methods and systems, including lectures, virtual classes and electronic exams.
- Technical supervision on the process of developing electronic courses.
- Providing the university with mechanisms for working on these means and indicating the best ways to exploit it [*sic*].
- Provide assistance and training for both lecturers and students on the use of electronic means.
- Providing technical and statistical reports on the use of the e-learning systems used.
- Follow-up, control and technical supervision.
- Adjusting the process of using these methods within their proper context and setting policies that achieve this.
- Follow up with related parties to produce good quality.
- Providing a website for the e-learning unit and providing it with data, instructions and means related to e-learning.

When this research project was initiated in March 2020, the primary content of the WBU E-Learning Unit web page was the mission statement quoted above along with links to the student ID number inquiry system, and to the G-Mail, Google Meet, and Google Classroom platforms. Throughout the period of the pandemic school closure, GC and GM were intended to be the primary tools employed by WBU faculty members (including the participants in this study) to facilitate the online delivery of their courses.

1.4 Statement of the Research Problem

In the specific context of the West Bank University Department of Languages, there is a need to evaluate teacher preparedness for an eventual transition to more intensive use of technology-enhanced pedagogies and a deeper institutional integration of digital technology in general. Prior to the pandemic-induced launch of online ERT at the institution, there had been no opportunity to gather substantive data on any group of WBU faculty regarding their possession of the type of knowledge required for teaching with technology as per the TPACK (technological, pedagogical, and content knowledge) framework (Mishra & Koehler, 2006). This lack of information represents an obstacle to accomplishing a smooth and successful transition to widespread deployment of technology-enhanced classroom education as well as blended learning and fully-online e-learning methodologies.

From a macro viewpoint, this thesis addresses what UNESCO refers to as an overall lack of information regarding the implementation of online education programmes in the educational systems of developing countries (UNESCO Institute for Statistics, 2013). Concerning the focus of this study—an emergency online learning programme in a higher education setting—even though an emergent and growing body of literature documents numerous aspects of the adoption of ERT by educators during the pandemic period, an extensive literature review uncovered no longitudinal examination of teacher beliefs and perceptions as they worked in this teaching mode for an academic year at an institution of higher education either in a developed or developing country. This gap in the literature constitutes a deficit in the available selection of research- and experience-based guidance for the rapid establishment of e-learning programmes in resource-deficient, under-privileged settings.

1.5 Aims and Objectives of the Research

The aim of this qualitative case study was to investigate the beliefs, perceptions, and experiences of university ELT teachers involved in the implementation of online ERT methodologies, and explore, identify and describe specific factors that affected the teachers' adoption and use of e-learning pedagogy under the conditions of a pandemic emergency school closure. The objectives of the study were:

1. to investigate and describe challenges and opportunities related to the adoption and use of e-learning in the ERT mode;

2. to analyse how the experience of ERT e-learning affected teachers' beliefs and perceptions regarding the use of e-learning in general;

3. to explore and describe the specific issues teachers faced in the use of e-learning for ELT;

4. to explore and describe possibilities and challenges related to the ongoing use of e-learning by WBU and other Palestinian ELT teachers as a tool for pedagogy and professional-development; and

5. to identify problems and solutions around the transition to an effective ongoing online ELT programme at WBU.

1.6 Research Questions

The aims and objectives of this qualitative case study were achieved by answering the following research questions:

1. How do the WBU English language teachers view the adoption and use of e-learning as a pedagogical tool under the conditions of ERT?

2. How did the rapid transition from traditional face-to-face teaching to the use of e-learning methodologies impact the professional practices of the WBU English language teachers?

3. How did the experience of ERT affect the WBU English language teachers' beliefs about the use of e-learning in the Palestinian educational context?

4. How does the landscape of challenges and possibilities in the adoption and use of digitally-mediated teaching methodologies as pedagogical and professional-development tools for the WBU English language teaching programme appear as viewed through the lens of pandemic ERT?

5. How can theories regarding effective e-learning pedagogy contribute to the development of a model for transitioning out of the ERT model into ongoing e-learning adoption and use in the WBU English language teaching programme?

1.7 Significance of the Study

This study represents a contribution to a new and growing branch of education/educational technology research: emergency remote teaching practice and pedagogy, and pandemic ERT in particular. This form of ERT presents a unique set of potential challenges—for example, reduced or no possibility for any face-to-face meetings should individual students need help,

lockdowns that may curtail access to needed services—computer repair or replacement for example, or extended illness and absence of teachers or critical ICT support staff.

1.7.1 Contribution to the Literature

This thesis contributes to the existing literature on e-learning, online education, ELT, and DCALL by providing longitudinal insights into the adoption of online e-learning methodology for teaching English to speakers of other languages in a higher education setting under ERT conditions and specifically in a context characterised by disruption, under-development, and inequity in access. These insights can be extended to inform future research on, and practical implementations of, e-learning-based higher education pedagogies in any situation where the adoption of digitally-mediated education is in the early stages, and in developing countries in particular. The findings of this study also help to establish a basic understanding of site-specific factors that can arise around and affect efforts to (1) develop digitally-mediated education programmes in Palestinian tertiary education institutions and (2) use online education methodologies to deliver EFL courses to Palestinian university students. The knowledge gained may be transferable to comparable settings in other developing countries.

1.7.2 Contribution to Practice

This study identified technological and pedagogical challenges and possibilities that can arise during the development and delivery of e-learning courses and online EFL instruction. The findings are immediately useful to administrators and teachers involved with e-learning development in general as well as for the purposes of ELT. The research enhances understanding of the challenges and advantages that may be encountered by teachers and students when adopting a new e-learning programme. This understanding can contribute to more effective selection and deployment of e-learning tools according to context and purpose, and to the design of professional development programmes for teachers preparing to work online.

From a broader perspective, educational policymakers and institutional administrators may find this study useful in aiding efforts to comprehend teacher perceptions of computer and internet use in education, and in forming effective policies and procedures to guide e-learning implementations. The COVID-19 emergency triggered a re-conceptualisation of the provision of education (UNESCO-IESALC, 2022), and long before the pandemic era, authors were discussing Education 4.0, an approach to education that values learner-centred, collaborative

learning models, frees students from the constraints of time and location, and supports life-long learning (Fisk, 2017; Hussin, 2018). This is a model of education built around the affordances of networked digital technology and online resources; COVID-19 has highlighted the value of these affordances.

1.8 Conclusion

This chapter has provided the rationale for this study and established contextual background for the work—a setting that in and of itself has offered and continues to present a clear, unarguable rationale for the necessity of this type of research. To support education in Palestine (and other conflict zones), it is a requirement to learn as much as possible about the design and implementation of online distance learning programmes, and make plans to move forward with related initiatives immediately. I stated the objectives of the study and documented the research questions that guided the work. As is typical with qualitative research, those questions evolved with the data collection and my lived experience with the research project and with the ERT paradigm in my own practice.

To conclude this chapter, I here state my overall thesis and argument, which resonates with opinions offered by Palestinian scholars in the past (e.g. Kayed, 2013; Shraim, 2012, 2018; Shraim & Khlaif, 2010) and in my view is well-supported in the chapters that follow: e-learning is a practical necessity for education in Palestine, and full effort must be applied to the development and deployment of reliable, effective technology-enhanced and online education programmes of all formats and modalities.

1.9 Thesis Outline

This thesis is organised in six chapters as outlined below:

Chapter 1 (this chapter) has provided background for the research project. The research context and site have been described; the research problem, aims, and objectives explained; and the research questions intended to guide my effort to achieve those objectives presented. The significance of the study in terms of contributions to the literature and practice were noted. A thesis stated by the researcher positions the project within a framework of necessity shaped by the particular challenges and demands of teaching and learning in Palestine.

Chapter 2 first presents the conceptual lens I constructed for this grounded theory study then defines four foundational conceptual components of my practical understanding of the research topic, then describes. The following topical sections comprise a review of literature pertinent to the research questions. The focus is on review of research similar to the present study, and on scholarship carried out in developing countries, the Arab world, and the MENA region.

Chapter 3 outlines the methodology and methods of this qualitative case study, beginning with description of the researcher's philosophical positioning, choice of methodology, and research design. Population, sample, instrumentation, and data collection are described along with the analytic process engaged to derive thematic findings from the raw data and locate answers to the research questions in the data. The chapter concludes with consideration of validity and reliability as they apply to and were addressed in this study, and documentation of steps taken to address ethical concerns.

Chapter 4 presents the research findings in the form of conceptual themes derived by application of qualitative thematic data analysis techniques. An overarching theme along with four emergent sub-theme strands and their associated contributory factors are described in dedicated chapter sections, with findings supported and enriched by outtakes from participant interview responses as well as connections to relevant literature.

Chapter 5 begins with discussion of the research findings positioned as answers to the research questions. The discussion then moves on to draw on the qualitative research paradigm of researcher-as-instrument and socially-situated interpreter of data to present an exploration of broader implications of the study as viewed through the lens of perceptions developed by the researcher during her lived experience of conducting the study and teaching in the WBU ERT programme. This discussion leads to an outline of a possible way forward for education in a

digitalised future, and considers some potential barriers to the realisation of these possibilities. This is followed by presentation of an emergent grounded theory of teacher preparation oriented towards preparation for an increasingly digitalised future, and describes an original paradigmatic framework developed for operationalisation of the emergent grounded theory from this study.

Chapter 6 concludes the thesis with a summary of findings, discussion of practical implications of the study, suggestions for further research, acknowledgment of delimitations and limitations of the study, and a brief final comment from the researcher regarding the implications of the newly-developed theoretic framework for teacher preparation as situated in the current circumstances extant in Palestine.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Literature review for this study was an ongoing, evolving, and comprehensive process that began in the proposal phase of the work and continued through all steps of the research project; due to the COVID pandemic and the later Israel/Hamas war, this ended up being a span of over three years. When COVID struck, the unexpected abrupt venture into wide-scale reliance on distance e-learning as a means of providing continuity of education in the face of quarantine lockdowns and school closures inspired an immediate response on the part of education authors and researchers. The result was a rapidly-growing body of literature related to the pandemic emergency's impact on schools, teachers, students, and education in general. Research-based articles began appearing soon after the March 11, 2020 pandemic emergency declaration (cf., Moghli & Shuayb, 2020, August 4; Obaid et al., 2020, August 6; Sahu, 2020, April 4). The pace of relevant publication has remained brisk as the influence and repercussions of the pandemic and responses to it continue to reverberate. Nonetheless, this literature review uncovered no report of longitudinal work encompassing the first 16 months of the emergency at an HEI, or based on a dissertation-level investigation. This study addresses that gap.

In preparation for conducting this literature review, I reviewed basic information on types of literature reviews (LSU Libraries, 2023; Snyder, 2019), strategies for conducting a useful, valid literature review for the purposes of dissertation work (Rowley & Slack, 2004), approaches to screening and organising material for the review (Fink, 2020), and some of the challenges involved in conducting a literature review (Chen et al., 2015). I generally followed Snyder's (2019) guidelines for integrative literature reviews. Snyder notes that this type of review is useful for approaching both mature topics or new, emerging topics, and allows for a more creative collection of data with a purpose of combining perspectives and insights from varied fields and research traditions.

Topical searches and snowball search strategies (University Library Groningen, 2022; Wohlin, 2014) comprised the basic methods used to identify and locate relevant literature. Google Scholar was the primary search tool employed, followed by Google, Bing, and other search engines. Academic research databases including ERIC, PubMed, Medline, Embase and others were accessed as required to support literature search and acquisition processes. Literature selection was biased towards work most similar to the present study, originating from contexts marked by inequity and resource scarcity, and ideally representing scholarship carried out in developing countries, the Arab world, and the MENA region in particular. For the

purposes of this study, coverage of ERT research is viewed as having relevance beyond the COVID-19 crisis because conditions of emergency and disruption to F2F instruction are so common at any time in Palestine.

This chapter opens with a description of my development of a conceptual lens based on theoretic models of technology acceptance and adoption. This is followed by presentation and definition of four technology adoption-related concepts that are foundational components of my situational understanding for the study, and are referred to throughout this thesis. The following sections review and summarise literature pertinent to the adoption of online distance learning methodologies by institutions, teachers, and students both in normal times and under emergency conditions. Topical strands in the review are organised hierarchically according to thematic emphases that I observed as emergent in the overall body of literature covered.

2.1 Conceptual Lens

Qualitative research in the social sciences commonly involves the researcher assuming a specific theoretical stance that serves as background and framework for the planning and conduct of the study, then as a lens when analysing and interpreting the data (Corbin & Strauss, 2015; Creswell & Poth, 2018). Reference to this stance or perspective with a variety of terms including theoretical framework, conceptual framework, theoretical lens, interpretive lens, and similar nomenclature is very common in the literature on qualitative research methodology. The terms are frequently present in discussions of research, often used interchangeably, but are rarely explained (Fain 2021; Green, 2014; Maxwell, 2013; Ravitch & Riggan, 2017). Some authors argue that such interchangeable and synonymous use is vague and introduces confusion (Grant & Osanloo, 2014), and I found this to be true in my reading on the subject. I also noted considerable discrepancy between various definitions offered for these terms; Ravitch and Riggan (2017) observe that they have heard the term conceptual framework used in reference to at least three different things.

In grounded theory research, the use of a priori theoretical frameworks is discouraged because the purpose of a grounded theory study is the construction or identification of theory emerging from and grounded in the data collected (Corbin & Strauss, 2015). Theory is developed by means of inductive processes during the research rather than being pre-selected from among existing theories (Charmaz, 2014; Corbin & Strauss, 2015; Cresswell & Poth, 2018;

Glaser & Strauss, 1967). However, some sort of organising or observational framework can be useful to help clarify a researcher's perceptions or thoughts about phenomena (Green, 2014).

In my case, a possible conceptual framework or lens emerged organically during review of the literature on teaching with technology and discussions with my thesis advisor. Formalising it for the purposes of this grounded theory case study, I rejected the traditional approach of adopting, as per Cresswell and Poth (2018) and others, a typical perceptual lens as constructed of philosophical stances and/or theoretical perspectives. Instead, I chose the simple, practical alternative of drawing on the lexical or dictionary definition of 'concept' as an abstract idea, with 'to conceive of' indicating the formation of a mental image of something that may not be explicit or directly visible.

I accepted Green's (2014) observation that concepts can be used to frame research, Fain's (2021) suggestion that a framework based on concepts can be called a conceptual framework, and Maxwell's (2013) contention that a conceptual framework is 'primarily a conception or model of what is out there that you plan to study, and of what is going on with these things and why—a tentative *theory* of the phenomena that you are investigating' (p. 49). Maxwell also posits that a conceptual framework is not found but constructed of pieces that are borrowed from elsewhere, and that was the method of construction for my conceptual framework. To begin the construction process, I conducted an overview of the major theories and models of technology acceptance and integration.

2.1.1 Models for Technology Integration

The adoption of innovation in education is not realized or accomplished just because an administrator or committee has decided and announced the fact; innovation adoption is a process, not a decision-point (Hall et al., 1975). To begin with, the technology underpinning digitally-mediated education is fluid. Mishra and Koehler (2008), referring to the complex and rapidly changing nature of digital technologies, characterise them—computers, mobile devices, software and applications—as unstable, protean, and opaque. When considering the adoption of such technologies for educational purposes, these aspects combine with questions around how technology can or should be integrated into teaching and learning along with the complexities arising from a nearly infinite multitude of additional variables at institutional, administrative, and user levels (Hall et al., 1975; Hamilton et al., 2016). At the user level, various members of the system demonstrate wide variation in their degree and type of adoption and use of an

innovation; each user experiences the process individually as filtered through their experiences, work contexts, beliefs, motivations, pedagogical choices, and other factors (Hall et al., 1975; Hamilton et al., 2016).

Venkatesh et al. (2016) note that 'Research on individual acceptance and use of information technology (IT) is one of the most established and mature streams of information systems (IS) research' (p. 329). A multitude of models for measuring the integration of technological innovation on the part of teachers have been introduced (Niederhauser & Lindstrom, 2018) going back at least until the early 1970s (Hancock et al., 2007) with the Concerns-Based Adoption Model (Hall, 1974; Hall & George, 1979) and the Levels of Use framework based on a concept drawn from the Concerns-Based Adoption Model (Hall et al., 1975). One of the most well-known early models is the Teacher Stages measure from the Apple Classrooms of Tomorrow project launched in 1985 (Dwyer et al., 1990, 1991). Koehler and Mishra's (2005, 2009) Technical, Pedagogical, and Content Knowledge (TPACK) framework is another widely-used model; it is focused on the aspect of teachers' skill-based readiness for technology adoption. The use of the TPACK framework as an analytic tool frequently appears in the literature around integration of technology during ERT (cf. Akram et al., 2021; Arcueno et al., 2021; Dy, 2022; Mouw et al., 2023; Tafazoli, 2021a; others), as does the Technology Acceptance Model (TAM; Davis, 1980, 1987) (cf. Hong et al., 2021; Ma & Luo, 2024), and variations on Bandura's (1982, 1997) self-efficacy theory as adopted to technology acceptance and use (cf. Hershkovitz et al., 2021; Kaqinari et al., 2022).

Chun and Yunus (2023) conducted a systematic review of research published between 2020–2022 aimed at investigating teacher's technology acceptance level and key factors affecting their acceptance and adoption for ERT. Screening 794 journal articles resulted in a final sample of 22 articles meeting the filtering criteria: journal articles published after 2020 in English, based on quantitative or mixed-methods research, focused on the perceptions of teachers and pre-service teachers, and including use of at least one theory of technology acceptance and integration. Five different theories of technology acceptance were identified among the sampled papers; Table 2.1 shows the frequency of appearance of each theory (Note that 6 of the 22 studies implemented either 2 or 3 theories.).

With the maturing of the field, and technology use approaching ubiquity in education at all levels in many locations, there appears to have been little recent research and development in the field of technology acceptance and adoption theories. Extended review of the literature

revealed no new, widely-implemented theoretic models. In a recent comprehensive review of the major models and theories of technology adoption, Yadegari et al. (2022) describe no original model (as opposed to updates/extensions/integrations of older models) more recent than 2003: Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003).

Table 2.1: *A Sample of Technology Acceptance Models Appearing in ERT Research*

Theory	Appearances
Technology Acceptance Model	16
Unified Theory of Acceptance and Use of Technology	7
Technological, Pedagogical, and Content Knowledge	4
Flow Theory	1
Theory of Planned Behavior	1

Note. Adapted from "Exploring teachers' technology acceptance during COVID-19 pandemic: A systematic review (2020-2022)," by T. W. Chun and M. M. Yunus, 2023, *International Journal of Evaluation and Research in Education* (IJERE), *12*(2), p. 961 (https://doi.org/10.11591/ijere.v12i2.25398)

Among the theories discovered in use by the Chun and Yunus (2023) literature review, Flow Theory refers to the well-known work of Hungarian-American psychologist Mihaly Csikszentmihalyi (1975/2000) in the fields of motivation and positive psychology; although it appears in the technology acceptance literature with some frequency, I did not encounter any examples in the work on technology adoption during ERT. The TAM was first proposed in 1980 (Davis,1980); similarly, the Theory of Planned Behaviour is a social psychological theory developed in the 1980s by Ajzen (1985) based on earlier work on with Fishbein (Ajzen & Fishbein, 1980) in the field of human behaviour. The TPACK model emerged in the early 2000s (Koehler & Mishra, 2005, 2009; Mishra& Koehler, 2003) contemporaneously with UTAUT (Venkatesh et al., 2003).

In the following paragraphs, I present concise introductions to several models of teacher technology acceptance and adoption that appear frequently in the literature around teacher technology adoption during ERT, beginning with an institutionally-developed model: the Technology Integration Matrix (TIM), an ongoing project of the Florida Centre for Instructional Technology at the University of South Florida. Designed as a resource for evaluating technology integration in K-12 settings, the TIM has been under development since 2003 and consists of a

25-cell grid that provides a framework for describing and targeting the use of technology to enhance learning (Florida Centre for Instructional Technology, 2024; Harmes et al., 2016). The TIM focuses on both student and teacher experiences and is accompanied by an extensive online resource base including hundreds of videos of actual TIM-aligned classroom lessons (Harmes et al., 2016). The TIM and supporting resources have been used in professional development and planning work in the United States and other countries. Several studies of teacher and pre-service teacher experiences during ERT implemented the TIM as an analytic framework (cf. Andoniou, 2024; Elçiçek, 2021; Gyau & Gyan (2023).

The Unified Theory of Acceptance and Use of Technology has been widely cited since being introduced in Venkatesh et al., (2003). Viswanath Venkatesh, a colleague and research partner of Fred Davis, developer of the Technology Acceptance Model (Davis, 1980, 1987), worked with Davis and other researchers to synthesize aspects of TAM, the Theory of Planned Behaviour (Ajzen, 1985), and other competing models into the UTAUT (Venkatesh et al., 2016). The UTAUT identifies key factors as predictive of behavioural intention to use a technology and actual technology use, primarily in organizational contexts: performance expectancy, effort expectancy, social influence, and facilitating conditions as moderated by age, gender, experience, and voluntariness. Longitudinal field studies of employees' acceptance of technology demonstrated that UTAUT explained 77% of the variance in behavioural intention to use a technology and 52% of the variance in technology use (Venkatesh et al., 2016). The UTAUT model is frequently used in technology adoption research and that remained true during the pandemic as well (cf. Esawe et al., 2023; Ma & Luo, 2024; Razif et al., 2020).

In 2006, Puentedura introduced a four-stage *Model for Technology and Transformation* (Puentedura, 2006, 2012) to describe a process of technology integration into K–12 education settings. The model became known by the acronym SAMR from the first letter of the name of each stage:

1. *Substitution*: Technology acts as a direct substitute for existing older tools, with no functional change occurring.

2. *Augmentation*: Technology acts as a direct tool substitute, with some functional improvement.

3. *Modification*: Technology allows for significant task redesign.

4. *Redefinition*: Technology allows for the creation of new tasks, previously inconceivable.

Puentedura (2006, 2012) characterizes the first two levels of technology use, *Augmentation* and *Substitution*, as technology *Enhancement* of educative processes, while *Modification* and

Redefinition are at the higher level of *Transformation*. In Puentedura's vision for the SAMR model, the desired outcome is technology-driven transformation of task design, creation, and accomplishment, and by extension, transformation of educational processes.

The SAMR model has been widely used as a framework for analysing educational practices with digital technologies; specifically, for building categorisations based on the actions and roles of teachers and students (Blundell et al., 2022). Hamilton et al. (2016) caution that there are no theoretical explanations for the SAMR model in the peer-reviewed literature, few connections to prior research, and limited detail in regard to understanding, interpreting, and applying the model in Puentedura's (2006, 2012) original materials, which consist primarily of copies of presentation slideshows offered via Puentedura's website (http://hippasus.com/). The SAMR model has been used for examining teachers' beliefs about integrating digitally-mediated pedagogy into ELT practices (cf. Al-Khalidi, 2021; Dwiono et al., 2018; Hoang, 2024; Wahyuni et al., 2020), and it also appears frequently in searches of literature on teacher integration of technology during ERT (cf. Bicalho et al., 2023; Lillebo & Solum-Sjaavaag, 2021; Mashiyi, 2023; Svrcek et al., 2022; Wijaya et al., 2021).

The Technology Readiness Index (TRI) is a psychometric scale that is used to measure an individual's propensity to adopt and use new technologies in their personal and professional life. The original TRI, developed and described by Parasuraman (2000), included 36 attributes designed to assess an individual's overall state of mind in terms of the construct of mental enablers and inhibitors that have the potential to determine their predisposition to use new technology. The TRI is often used in marketing as a tool to gather information regarding consumer attitudes towards new technologies so marketing strategies can be tailored accordingly (Parasuraman & Colby, 2015). The TRI assesses an individual's readiness to use technology across five dimensions:

- Optimism: How positive the individual's attitude is towards technology and its benefits
- Innovativeness: How open the individual is to new technology
- Discomfort: How comfortable the individual is using the technology
- Insecurity: How concerned the individual is about privacy and security when using technology
- Complexity: How difficult the individual perceives the technology to be (Parasuraman, 2000; Parasuraman & Colby, 2015).

In contrast to the TAM, which measures individuals' acceptance towards a specific technology, the TRI measures beliefs an individual has about technology in general (Acheampong et al., 2017). Research has shown the constructs of the TRI—optimism, innovativeness, discomfort and insecurity—to be relevant and demonstrate adequate levels of internal consistency, reliability, convergent validity, and discriminant validity (Ali et al., 2016). In 2015, Parasuraman and Colby (2015) undertook a research project to update the TRI, streamlining the scale to 16 items and renaming the instrument TRI 2.0. The TRI is often used to extend the TAM in a hybrid model (Acheampong et al., 2017; Cibaroğlu et al., 2021). A number of studies deployed the TRI 2.0 or items selected from it to evaluate the readiness of teachers or students to adopt technology during ERT (cf. Aruleba et al., 2022; Browning et al., 2023; Matarirano et al., 2021).

2.1.2 Constructing a Conceptual Framework

My thesis advisor had suggested that the TPACK framework (Koehler & Mishra, 2009) and the Kiely (2001) model of pedagogical innovation would be useful for conceptualising my participants readiness to use technology and their acceptance of the forced innovations underway with ERT. I was familiar with the Technology Acceptance Model (Davis, 1980, 1987), and it appeared frequently during my review of literature. The pandemic ERT-specific literature around the topic of teacher technology adoption and integration was not yet extensive at this point, so I settled on these three widely-accepted older models. Using these paradigms, and integrating my lived experience in acknowledgement of the researcher-as-instrument qualitative research paradigm, I put together a conceptual framework specific to the phenomenon under investigation: teachers' forced acceptance of technology during a rapid transition to the use of digitally-mediated instructional methodologies.

This framework comprises concepts that served to aid me in seeing, identifying, and understanding particular aspects of that experience that might be evidenced in the data, so I envision it as lens. Following the convention described by Krainovich-Miller (2018) and Ravitch and Riggan (2014), I present my conceptual lens here in the literature review, with the three external or extrinsic components beyond my own experiences and perceptions identified and described in the following sections. No weighting of the components is implied by the order of presentation.

2.1.2.1 The TPACK Framework

One facet of the conceptual lens comprises Koehler and Mishra's (2009) technological, pedagogical, and content knowledge framework. This framework is based on the idea that, to deliver effective digitally-mediated lessons via the internet, teachers need to proficiently combine a knowledge of content and pedagogy (as adapted for the online environment), with technology skills (Koehler & Mishra, 2009; Koehler et al., 2013). To this end, Mishra and Koehler (2003) argue that approaches to teaching the use of educational technology must include methods for giving teachers a wide range of skills, and lead to a deep, general understanding of technology in education that is not limited to specific instances or applications of such technology. Mishra and Koehler call for teachers to reconsider their ways of thinking about technology and their relationship with it, to include reframing that relationship as complex, dynamic, and continuously evolving, then develop nuanced and sophisticated understandings of the capabilities and constraints of technology.

Applying these ideas to the design of a method for representing what teachers need to know about teaching with technology, Koehler and Mishra (2005) propose an approach to technology integration into teaching practices that 'values rich knowledge about how technology, pedagogy, and content interact with one another' (p. 132). Extending Shulman's (1987) concept of integrated pedagogical content knowledge to the domain of teaching with technology, Koehler and Mishra (2005) developed a framework highlighting the importance of technological pedagogical content knowledge to understanding and engaging in effective teaching with technology. The original framework, TPCK, is now known as TPACK, or technology, pedagogy, *and* content knowledge (Koehler et al., 2013; Koehler & Mishra, 2009). In a similarity with Tafazoli (2021a), this concept and framework served as an important component of the conceptual lens for this research project.

Three areas of knowledge comprise the core of the framework, and the approach leveraged by Koehler and Mishra (2005, p. 133) emphasises the connections and interactions between these three elements:

1. Content (C) is the subject matter that is to be learned/taught.

2. Technology (T) encompasses modern technologies such as computers, the Internet, digital video, and more commonplace technologies including overhead projectors, blackboards, and books.

3. Pedagogy (P) describes the collected practices, processes, strategies, procedures, and methods of teaching and learning. It also includes knowledge about the aims of instruction, assessment, and student learning.

Interaction of the core knowledge elements (see Figure 2.1) gives rise to second-level knowledge structures that can be identified as technological pedagogical knowledge (TPK), pedagogical content knowledge (PCK), and technological content knowledge (TCK); these unify to comprise technological pedagogical content knowledge (Koehler et al., 2014). Jointly considering these three elements and their various interactive combinations yields the TPACK concept describing the knowledge teachers need in order to effectively integrate technology into their practices (Mishra & Koehler, 2003).

Figure 2.1: *The TPACK Framework and Its Knowledge Components*
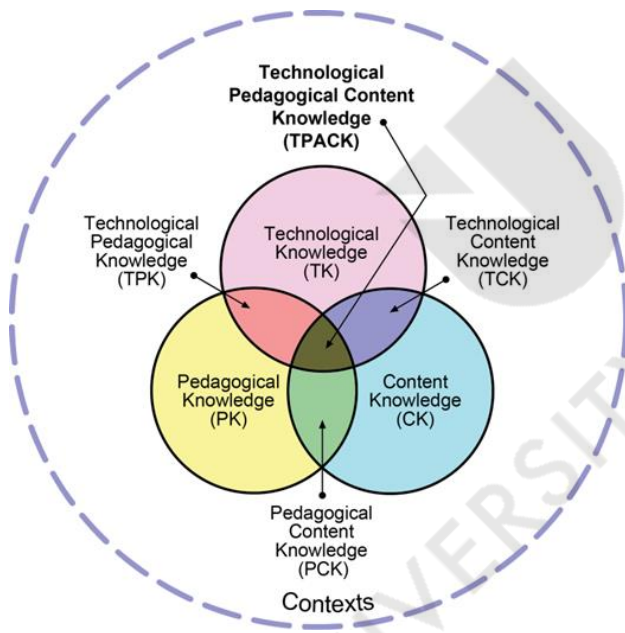
Note. From "Using the TPACK Image," by M. Koehler, 2011, *TPACK ORG* (http://tpack.org/). Reproduced by permission of the publisher, copyright 2012 by tpack.org

As Mishra and Koehler (2006) describe it, teachers now work in a context that has foregrounded technology in ways that would have been unimaginable a few years ago, and knowledge of technology has become an important aspect of overall teacher knowledge. Content, pedagogy, and technology interact in a complex and nuanced relationship; technologies may come with their own imperatives that constrain the content that must be covered and the nature of possible representations (Mishra & Koehler, 2006).

Nearly two decades later, this view holds up well against more recent assessments such as Lund and Aagaard's (2020) views on the effects of ever-increasing digitalisation on education and teaching practices. Adopting TPACK as a component of my conceptual framework for this research project provided me with a resource to help me understand and evaluate the participants' decisions, strategies, and competencies in regard to the technologies they were interacting with during the period of ERT.

2.1.2.2 The Kiely Model of Pedagogical Innovation

Kiely's (2001) model of pedagogical innovation provided additional support for understanding teachers' adaptation to new pedagogical demands during the transition to working in virtual classrooms. Studying processes of curriculum and teacher development in response to an instance of programme evaluation that included student feedback, Kiely (2001) found that the teacher underwent a process of development based on the rethinking of core principles and teaching strategies when encountering student feedback on classroom practices. This occurred in a context of competing values posed by tension between programme directives, the teacher's pedagogical and classroom management principles, and the desires and needs of the students.

Drawing on this observation, Kiely (2001) proposed a repeating, linear, cyclical model of development in which a teacher receives student or other types of feedback that illustrates a perceived problem with classroom practices (see Figure 2.2). This creates instability if it contrasts with the teacher's belief in and commitment to a chosen set of pedagogic principles and/or the need to uphold programme directives and adhere to other constraints such as time. After an initial period of resistance, the teacher may then engage in reflection that can eventually lead to an effort to re-establish coherence by making adjustments in both personal belief systems and classroom practices. Such efforts can result in teacher development and pedagogical innovation.

The paradigm as a whole can be thought of as a feedback, resistance, reflection, and innovation model, and it is more complicated than traditional views of development as arising from teacher evaluation in that Kiely (2001) acknowledges it as taking place in contexts where various and competing power/control (administration, teacher, students) and value/interest factors (programme, teacher, students) are at play. A teacher's own self-initiated, flexible, responsive navigation and negotiation within this complex context results in effective teaching.

This contrasts with views that have historically been inherent to teacher development programs, which Kiely (2011) describes as tending to operate according to two assumptions: an assumption of deficit that supposes teachers to be lacking in some desired knowledge and skills, and an assumption of resistance that infers that teachers do not change their practices without external prompting.

Figure 2.2: *The Kiely Model of Pedagogical Innovation*
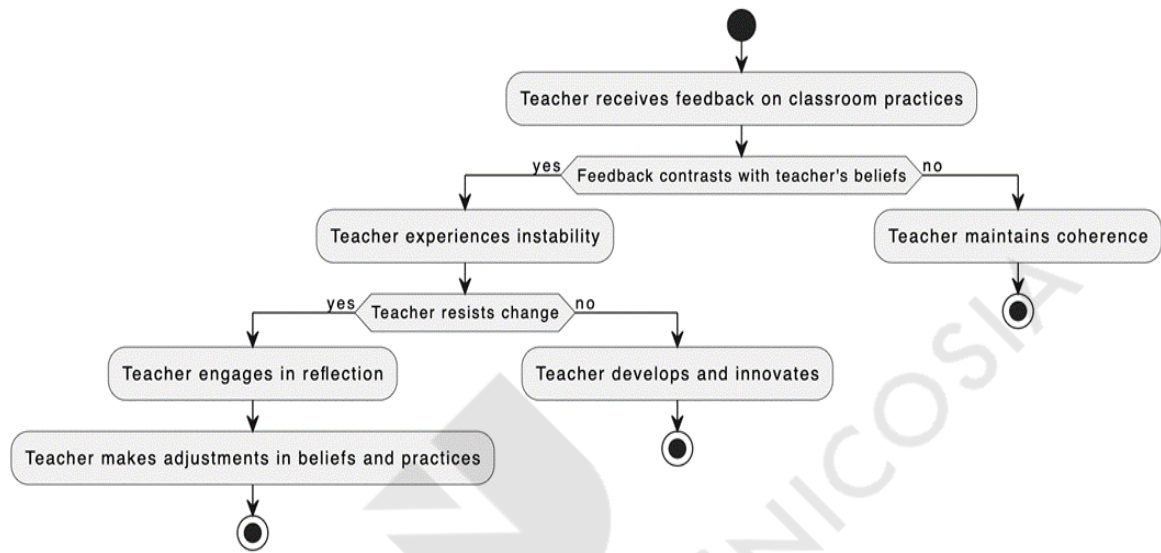
Alexander (2012) suggests that the Kiely (2001) feedback, resistance, reflection, and innovation model is applicable as a perceptual lens for the examination of teachers' integration of digital technology into their classroom practices. In a study of six EFL teachers' use of the internet in classes held in a university language laboratory, Alexander observed that one of the teachers appeared to go through cycles of development as per the Kiely model. This indicates that the model might be of use in my observations of five ELT teachers adapting to technology use during ERT; accordingly, I integrated the Kiely model into my conceptual framework.

2.1.2.3 The Technology Acceptance Model

Drawing on Ajzen and Fishbein's (1980) Theory of Reasoned Action, Davis (1980, 1987) proposed the Technology Acceptance Model as an explanatory model of an individual's intent to use and eventual acceptance of new and/or unfamiliar technologies. TAM frames technology acceptance as primarily influenced by the interactions of three interrelated constructs:

1. Perceived ease of use (PEU): the degree to which the potential technology user perceives that such use would require little to no effort;

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2. Perceived usefulness (PU): the degree to which the potential user believes that using a particular system might enhance performance/improve outcomes; and

3. User attitude (ATT) towards using the system, application, etc.

For a simple summation relevant to the present study: TAM supports the inference that inexperienced and untrained teachers are likely to perceive the PEU and PU of most new technologies as low; in other words, the technologies appear difficult to use and of little utility in accomplishing tasks more effectively and/or efficiently.

Davis first developed the TAM (see Figure 2.3) as part of a Ph.D. dissertation (Davis, 1980) at the MIT Sloan School of Management. It was designed as 'a theoretical model of the effect of system characteristics on user acceptance of computer-based information systems' (Davis, 1980, p. 7). The objectives included building an increased understanding of user acceptance processes that would aid in the design of information systems, and finding ways to conduct pre-launch tests on new systems for their ability to draw user acceptance. An overarching goal was the improvement of general knowledge relevant to the development of computer-based systems and their successful implementations in organisations. The dissertation and later journal articles drew much attention, and in 2009, Chuttur noted that the model had possibly been researched to the point of saturation and was due to be superseded by theories emerging from the ground TAM had broken (Chuttur, 2009). Chuttur also stated that 'An understanding of the assumptions, strengths, and limitations of TAM is essential for anyone willing to study user acceptance of technology' (2009, p. 2).

Figure 2.3: *The Technology Acceptance Model*
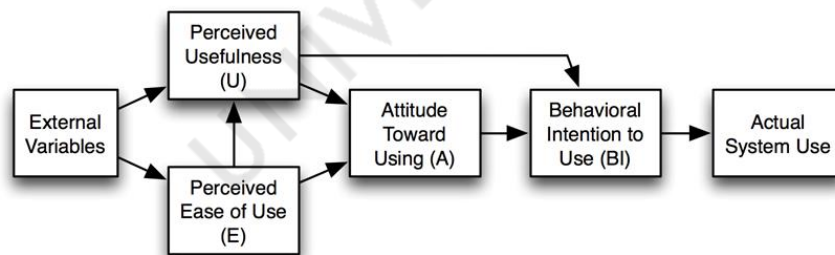
Note. From "Technology Acceptance Model," In *Wikipedia*, May 17, 2024, (https://tinyurl.com/ycynddvs) Reprinted under the Creative Commons Attribution 3.0 Unported license.

TAM has been widely cited throughout the literature of several fields including information systems management, health care, education, educational technology, instructional

design, and others. Yucel and Gulbahar (2013) conducted a meta-analysis of 50 research papers on TAM and found that most were published in the fields of business and education. For an example of use outside those fields, TAM has been applied to aid in predicting and explaining IT acceptance and use in healthcare fields (Holden & Karsh, 2010). As with other fields and use cases, by modifying and/or adding variables, the model can be adapted specifically for testing and use in health care contexts. On the other hand, Holden and Karsh (2010) found it difficult to compare use studies in order to assess the model's power because of the resulting extreme variation between the tested models.

In a 2024 book reflecting on 30 years of TAM and recounting the origins of the model along with a sampling of the research based on it, Davis and Granić (2024) acknowledge the many iterations and variables of TAM. However, in the new book, Davis and Granić stay true to the foundational theory as stated by Davis in a 1987 University of Michigan Working Paper: 'TAM specifies the causal interrelationships between <u>system design features</u>, <u>perceived usefulness</u>, <u>perceived ease of use</u>, <u>attitude toward using</u>, and <u>actual usage behavior</u>' (Davis, 1987, p. 1). Davis and Granić maintain that the original variables, 'perceived usefulness and perceived ease of use remain the basic beliefs of the core TAM model' (2024, p. 4). I accepted the TAM model in this same original version as a grounding concept and perceptual lens that may be helpful to accurately perceiving and interpreting my research participants' reactions to the integration of technology in their practices.

2.1.3 Integrative Conceptual Lens

Exploring and gaining familiarity with the three elements of the conceptual lens produced immediately actionable practical information useful in my own practice and at the research site, where an institution-wide effort is underway with the objective of moving toward more complete integration of technology into the education system and practices. The TPACK framework outlines what teachers need to know in order to effectively integrate technology into their practices, and provides a way to conceptualize and discuss a complex web of relationships in a methodical, grounded manner. The Kiely Model of Pedagogical Innovation predicts linear stages in the adaptation and development processes that teachers go through when encountering feedback that indicates a need to change their established teaching principles and practices. The Technology Acceptance Model describes potential rationales for resistance to or acceptance of the use of unfamiliar technologies. I integrated these three components in the construction of a

conceptual lens that, like any lens, helpfully focused but also filtered, coloured, and even to some degree obscured my view of reality.

I designed the Integrative Conceptual Lens (see Figure 2.4) to illustrate this focusing and filtering phenomenon; the process of constructing the figure constituted an exercise in researcher reflexivity on and clarification of my observational stance. The use of this Integrative Conceptual Lens for my research project aided me in noticing, identifying, and interpreting details in my participants' interactions with and reactions to technology and digitally-mediated pedagogies. It alerted me to potential elements of interest that might appear in the data. Work on creation of the Integrative Conceptual Lens increased my awareness of my own relationships with technology and epistemologies around digitally-mediated education and digitalisation in general. As a teacher participant in the phenomenon under investigation, I naturally turned the Integrative Conceptual Lens on myself as a mirror and opened a reflexive interior dialogue on my own level of digital fluency and perceptions regarding the effective use of technology for teaching and learning. The Integrative conceptual lens

Figure 2.4: *Integrative Conceptual Lens*
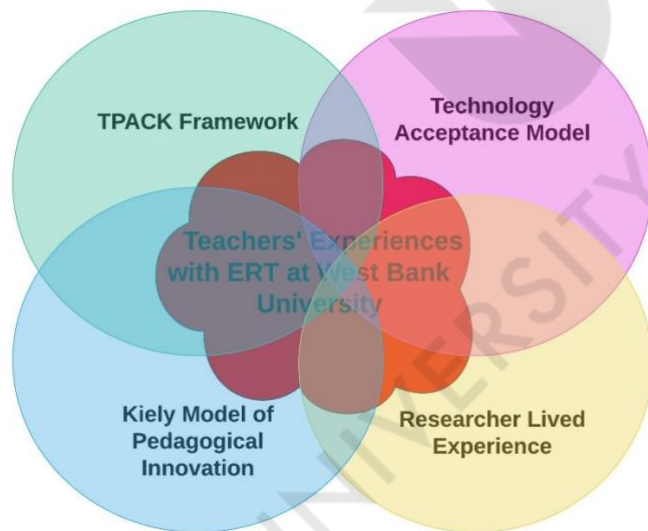
Framing the research within a conceptual lens added perceptual and conceptual tools to my researcher tool box, and afforded a degree of a priori structure to the analytic processes. The exercise of studying and selecting the three core components of my conceptual lens, then working through a synthesis process to create the Integrative Conceptual Lens was a process that enhanced my ability to engage informed consideration of the research participants' beliefs, perceptions, actions, and reactions given their situation. Finally, exploring and gaining familiarity with the three core elements of the conceptual lens produced immediately actionable

practical information useful in my own practice and at the research site, where an institution-wide effort is underway with the objective of moving toward more complete integration of technology into the education system and practices.

2.2 Four Key Concepts

Four key literature-based concepts represent core elements of my practical and analytical understanding in regard to the matters of this study. They underlie many assumptions in the work and are directly and indirectly referenced in the text with varying degrees of frequency. This section establishes the terminology used to refer to these concepts in this study, defines them, and provides some discussion of their background. The key concepts are presented below in alphabetical order.

2.2.1 Digital Divide

As described in Chapter 1, the research site for this thesis was a university in Palestine, a developing country. Understanding the concept of digital divide raised my awareness of the differences that can arise between implementations of online e-learning in wealthy developed countries and attempts at the same in regions of the developing world. This awareness in turn supported my analysis of the context of the present study and many of the phenomena revealed by the research. As defined by the Organization for Economic Co-operation and Development (OECD):

> The term 'digital divide' refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the internet for a wide variety of activities. The digital divide reflects various differences among and within countries. (2001, p. 5)

Digital divide generally emerges from two major stands of causation: lack of access and lack of digital literacy (Shanahan & Bahia, 2023). 'Digital inequalities can be conceptualized as emerging from the differences in actual access to technology, as well as differences in digital literacy…[that] are deeply embedded in social, economic, cultural and global contexts' (Beaunoyer et al., 2020, p. 1).

Concerning access, while global internet penetration is growing quickly, an estimated 2.66 billion people, nearly one-third of humanity, still remain totally offline (Kemp, 2024b),

and hundreds of millions more are limited to expensive, poor-quality internet access (ITU, 2022). Virtual classes mounted on a school's LMS platform and accessed by students with personal tablet computers may be common to education systems in wealthy countries, but on a global basis, only 40% of school-age children can access the Internet at home. Many of these students must depend on connections made via mobile phones with limited functionality for activities like e-learning; many more struggle with unstable, slow connections (ITU, 2022). Schools also suffer from the technology development gap, and (as was the case during ERT at WBU) teachers and students in these situations often rely on public web applications and platforms such as email, WhatsApp, or various Google products in order to support online access to lessons and assignments (Tam & El-Azar, 2020).

Buschmaas et al. note a 'huge divide' (2019, p. 16) between developed countries where connectivity is ubiquitous and the least developed countries, where internet access is partially non-existent in rural areas. They describe a continuing or even widening digital gap as 'detrimental to the well-being of all communities' (Buschmaas et al., 2019, p. 15) because the divide creates barriers to empowerment and entrepreneurship, threats to achieving sustainable development goals, impacts on wealth production, and ramifications for human development. While billions of people rely on mobile internet access as their predominant route online (Kemp, 2024b), hundreds of millions more, primarily in low- and middle-income countries, are not even aware of the existence of mobile internet (Shanahan & Bahia, 2023). Other barriers that impede internet access include inadequate infrastructure, politics and war, device and data affordability, rural residency, misogyny, lack of digital skills, and the need to prioritise the provision of fundamental necessities such as safe drinking water and basic sanitation (Kemp, 2024b; Shanahan & Bahia, 2023).

As implied by the OECD definition, digital divide is represented on a macro level by the gap between countries and regions with complex digital infrastructures, near-ubiquitous connectivity, and wide-spread access and those without (Buschmaas et al., 2019). From a fine-grained viewpoint, digital divide may be constructed around a variety of socio-cultural and economic factors, including urban or rural residence, gender, age, literacy level, education, occupation, and income (ITU, 2022). Both macro and micro aspects of digital divide eventually emerged as factors affecting the delivery of online education in Palestine during the pandemic emergency.

A side-effect of the COVID-19 emergency was to make inequities in resource

distribution and access become immediately apparent, a phenomenon that frequently appeared in the otherwise privileged settings of developed countries (Carrillo & Flores, 2020; UNESCO-2020b). As Carrillo and Flores (2020) note, limited access to technology and the Internet is a reality that lockdowns and the adoption of remote learning exacerbated in many cases. Suddenly demanding teachers and students to rely on technology in order to continue schooling exposed layers of digital inequality arising from differential access to technology resources along with differences in digital literacy tied to social, economic and cultural contexts (Beaunoyer et al., 2020).

2.2.2 Digital Literacy

As noted above, lack of digital literacy is a prominent contributor to Digital Divide. Digital or computer literacy is generally defined as knowledge and understanding of the characteristics, capabilities, affordances, and applications of computers along with the ability to implement this knowledge in the skilful, productive, and personalised use of computer technology (Martin & Dunsworth, 2007). Digital literacy is a foundational conception for this thesis because it represents the competency that underpins the productive engagement of teachers and students with ICT for the purposes of education.

The foundational conceptions of digital literacy arise from claims like that of Lanham (1995) which extend the meaning of the term "literacy" to include the ability to understand information however it is presented, and the skill to choose mediums that match the kind of information being presented and the audience for that information. Buckingham (2015) provides context for discussing definitions of digital literacy by proposing that 'Education *about* the media should be seen as an indispensable prerequisite for education *with* or *through* the media' (p. 21). If the Internet, computer games, or other digital media are to be used to teach, then students need to be equipped to understand and critique these media. They cannot be regarded as neutral means of delivering information and used merely in functional and instrumental ways (Buckingham, 2015).

Buckingham (2015) further explains that the notion of digital literacy is not new. Indeed, arguments for 'computer literacy' date back at least to the 1980s. Computer literacy, computer competency, and computer proficiency are terms frequently used interchangeably with digital literacy (Khan et al., 2013). Buckingham notes that digital literacy is not a clearly defined concept, and arguments for it tend to be based on questionable assertions of vocational relevance

or the inherent value of learning via computers. This has resulted in a contemporary conception of digital literacy that refers to 'a minimal set of skills that will enable the user to operate effectively with software tools, or in performing basic information retrieval tasks' (Buckingham, 2015, p. 23).

Gilster (1997) provided an early Internet-era identification of key competencies associated with digital literacy: searching the Internet, navigating hypertext, evaluating information content, and assembling knowledge. The idea of core competencies that comprise digital literacy is supported in a 2011 Policy Brief from the UNESCO Institute for Information Technologies in Education (Karpati, 2011); more than the ability to handle computers, digital literacy 'Comprises a set of basic skills which include the use and production of digital media, information processing and retrieval, participation in social networks for creation and sharing of knowledge, and a wide range of professional computing skills' (Karpati, 2011, para. 1).

Authors such as Buckingham (2015) and Knobel and Lankshear (2015) critique definitions and descriptions that focus solely on the functional or operational aspects of digital literacy, as failing to recognise the socio-cultural positioning of human interactions with computers, and especially the relationships members of the so-called 'digital-native generations' (as per Prensky, 2001) have with digital technology. Knobel and Lankshear refer to what sociocultural theorists call the autonomous model of literacy, in which literacy is embodied as a skill, tool, technique, or set of (mainly cognitive) competencies that can be applied in diverse contexts and put to a range of uses and applications.

The important understanding is that such skills and techniques take on differing forms when embedded in varying social practices carried out for different purposes with different kinds of meaning. This paradigm draws on ideas about situated discourse such as those proposed by James Gee (2004) that position discursive acts including reading and writing as invariably tied to meaning. The making of meaning is not a function of technique or skill but is instead predominately a product of social context, practice, and Discourse (Gee, 2004; Knobel & Lankshear, 2015). In recognition of this argument, Knobel and Lankshear (2015) argue that the concept of digital literacy does not propose a unitary, finite competency or skill set but is instead a heuristic or 'shorthand for the myriad social practices and conceptions of engaging in meaning making mediated by texts that are produced, received, distributed, exchanged etc., via digital codification' (p. 13). From this viewpoint, the acts involved in knowing how to operate hardware and software are the least part of what the social practices of digital literacy involve. Instead,

cultural and critical ways of doing things are central to participants' acts of digital literacy (Lankshear et al., 2000).

For the purposes of this research, various definitions and critiques of digital literacy were acknowledged and synthesised in the construction of the following definition: digital literacy is comprised of a knowledge base and set of technical skills both hard and soft that enable teachers and students to (a) use networked digital tools proficiently enough to access and utilise digitised teaching and learning materials and related resources while also (b) creating and maintaining social presence[3] in online virtual environments and (c) carrying out in those environments communicative activities and other personal interactions integral to the processes of teaching and learning. To contextualise this definition, I accepted that the technological tools, the skills needed to use them, and all practices and interactions thereby afforded arise from and are at all times embedded in the sociocultural context that makes up the lived experience of the individuals engaged in the performance of digital literacy. Further, the conceptions and performances of digital literacy are also shaped by the individuals' personal perspectives, perceptions, purposes, and prerogatives.

2.2.3 E-Learning

In Chapter 1 of this report, e-learning was introduced as the provision of access to training, teaching, or tutoring via the use of digital multimedia content delivered by means of networked electronic technology including computers and mobile devices (Woollard, 2011). This section develops this basic introduction into a comprehensive description of the e-learning model drawn from a review of relevant literature. The section concludes by stating the definition of e-learning as understood and accepted for the purposes of the present study.

Sangrà et al. (2012) describe e-learning as an aspect of the new dynamic characterising education systems at the beginning of the 21st century. As such, it is subject to constant change driven by the ongoing development of technology, the differing characteristics of individual disciplines, and the changing needs of learners. Therefore, 'It is difficult to come up with a single definition of e-learning that would be accepted by the majority of the scientific community. The different understandings of e-learning are conditioned by particular professional approaches and interests' (Sangrà et al., 2012, p. 145).

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[3] Social presence is the degree to which a person feels present or is perceived as a real person in mediated situations and communications (Short et al., 1976).

With the goal of reaching a final consensus on the concept of e-learning, Sangrà et al. (2012) conducted an extensive review of relevant literature and followed this with a three-round Delphi survey of internationally recognised experts (N=33) in the field of education and technology. The project arrived at a definition of e-learning supported by a high degree of consensus, with 31 of the 33 respondents rating the definition as either fully representing the e-learning concept or representing the e-learning concept fairly well:

> E-learning is an approach to teaching and learning, representing all or part of the educational model applied, that is based on the use of electronic media and devices as tools for improving access to training, communication and interaction and that facilitates the adoption of new ways of understanding and developing learning. (Sangrà et al., 2012, p. 152)

Note that the definition developed by Sangrà et al. (2012) includes the idea of improving access to training, communication, and interaction yet does not mention networked technology, ICT, or the internet. It can be inferred that this is an allowance to include models of e-learning that are carried out on non-networked devices (e.g. stand-alone computers with appropriate software installations or tablets with pre-loaded educational applications) rather than limiting the definition to describing only networked or online e-learning methodologies.

For the purposes of this thesis, I accepted the basic definition of e-learning as per Sangrà et al. (2012) with the addition of the networked technology concept from (Woollard, 2011) as expanded to include the use of the internet (or a mobile data network) to deliver and access course content and possibly other institutional resources via platforms and tools that support synchronous and asynchronous interaction between teachers, students, and content (as per Cochran & Benuto, 2016; McDaniels et al., 2016; Xu & Xu, 2019). This type of e-learning may not necessarily comprise the entirety of a teaching methodology but might instead be a component of any given pedagogical approach including face-to-face courses designed according to hybrid or blended models. This is in line with the Seaman et al. (2018) description of distance education with its focus on delivering instruction to students who are separated from the instructor regardless of specific distances or circumstances.

In summary, for this thesis e-learning is defined as a method of teaching and learning based on the use of internet-connected electronic technologies, including digital computing and communication devices of all types, to deliver, receive, and access educational content, communications, and activities in the form of course-specific digitised materials, media, and

synchronous or asynchronous interactions as well as connections to an unlimited variety of external resources beyond the immediate virtual classroom, e-learning platform, or institutional resource base. Note that, unless otherwise clarified as non-networked or offline e-learning, in this study the term e-learning is used interchangeably with online learning and online education.

2.2.4 Emergency Remote Teaching

The COVID-19 pandemic crisis at its peak affected 91% of the world's school population (UNESCO Global Education Coalition, 2021). Between 25 March and 17 April 2020, the International Association of Universities carried out a global survey in order to gain a better understanding of the pandemic's effects on higher education (Marinoni et al., 2020). Contacting 9,670 higher education institutions with a request to participate resulted in 576 replies from 424 universities and other higher-education institutions based in 109 countries and two Chinese Special Administrative Regions (Hong Kong and Macao). Almost all responding institutions reported being impacted by COVID-19, with 58% reporting complete institutional closure. The emergency affected teaching and learning at 98% of the institutions, and 67% replaced classroom sessions with online-supported distance teaching and learning. Another 24% were working on developing ways to continue instruction via digitally mediated delivery or self-study methods (Marinoni et al., 2020).

It is now widely known that this mass movement forced many F2F classroom teachers online for the first time; this frequently occurred in situations where no online e-learning programmes or systems were in place. Instead, educators were forced into online emergency remote teaching, or ERT, a chaotic and often ineffective approach to teaching and learning that Bozkurt and Sharma (2020), Hodges et al. (2020) and others describe as distinct from the complex, planned process that is online distance education. Technically not online education or e-learning, COVID ERT, a mode of practice that became known as 'coronateaching' (Carrillo & Flores, 2020), often produces unsatisfactory learning outcomes along with other negative effects (Carrillo & Flores, 2020; Hodges et al., 2020; UNESCO IESALC, 2020). As noted in a 2020 UNESCO-IESALC report on the impact of the pandemic on higher education in Latin America and the Caribbean:

> The term Coronateaching is also used to refer to an emerging socio-educational
> phenomenon with psycho-affective implications for both teachers and students.
> This would be something similar to a syndrome experienced by the teacher or

student when feeling overwhelmed by receiving excessive information through educational platforms, mobile applications and email. To this can be added the frustration and helplessness derived from the limitations in connectivity or the lack of know-how for the operation of platforms and digital resources. (2020, p. 25)

ERT is a form of online education that differs from pre-pandemic online education offerings (Wen & Kim, 2020; Zhang et al., 2020). Effective online courses are the product of proper pre-introduction planning and design as well as ongoing continual evaluation and validation processes (Baldwin et al., 2018; Bozkurt & Sharma, 2020). Teaching and learning online involves specific roles, competencies, and professional development approaches engaged by teachers (Ní Shé et al., 2019) and specialised strategies for interactions among participants, curriculum, pedagogy, and assessment (Carrillo & Flores, 2020). In contrast, Hodges et al. (2020) note that 'Well-planned online learning experiences are meaningfully different from courses offered online in response to a crisis or disaster' and describe ERT as 'a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances' (para. 1, Emergency Remote Teaching section). It is a teaching and learning experience that is not planned from the beginning, designed to be online, or intended to continue beyond the crisis or emergency conditions (Hodges et al., 2020).

Tafazoli (2021a) notes that the term 'emergency remote teaching/ERT' was first used in reference to the rapid shift from F2F to online instruction implemented by education institutions in response to the Autumn 2009 H1N1 flu crisis. Claiming that it is wrong to call ERT online teaching and learning even though teachers utilise online tools in ERT, Tafazoli concurs with the scholars cited above in stating that 'ERT or a pandemic pedagogy is a temporary shift from the normal modes of teaching due to crises like natural disasters (e.g., hurricanes), the H1N1, and Corona viruses' (2021a, p. 5). ERT is a paradigm positioned somewhere between F2F classes and online e-learning—in the words of Hodges et al. (2020), it is 'the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated' (para. 1, Emergency Remote Teaching section).

2.3 A Challenging Transition to ERT

An International Association of Universities survey reported in Marinoni et al. (2020) documented HEIs struggling to maintain programme continuity during the COVID-19

emergency school closures by turning to increased dependency on, or rapid initial deployment of online distance-education pedagogies. The result was a phenomenon that has been referred to as 'a large-scale social experiment' (Lemay et al., 2020, Abstract), 'an involuntary international experiment' (Šorgo et al., 2023, Abstract); and 'a terrible, unwanted experiment in which millions of students have been involuntarily transitioned to online and remote education while teachers, instructors and faculty have all been asked to change the way they have worked for generations' (Di Mantova, 2020, para. 1). Needless to say, the move online represented an abrupt and challenging transition to millions of teachers around the world.

2.3.1 Inadequate Community Infrastructure

In wealthy developed countries, access to advanced technology and the reliable infrastructure that supports its use is common. In this type of context, the significance and potential affordances of ICT in education have been acknowledged and addressed, and examples of adoption and use have multiplied. Teaching and learning practices at every level of schooling have been transformed by the affordances of ICT (Hussin, 2018; Seaman et al., 2018; Xu & Xu, 2019). In tertiary education and training in particular, digital technology has driven innovation in curriculum development, instructional design, and teaching methodologies (Arif et al., 2015; Farid et al., 2018; Shraim & Khlaif, 2010).

Many years before the pandemic era, Kayed (2013) explored the potential for expanding the use of e-learning in Palestinian HEIs and noted that 'The frequent power cuts that Palestinian households, businesses and educational institutions are often subjected to do not advance the case of [an] e-learning-based educational system' (p. 16). Kayed also described inadequate access to the internet as an obstacle to adopting online learning at Palestinian institutions. Conditions affecting the viability of online e-learning as an education alternative vary widely between countries in the developing world, and within individual countries as well. Many distinct factors, from climate to culture, can pose unique challenges to the implementation of ICT-mediated curriculums (Tedre et al., 2009). However, it is very common to find that education institutions and educators in developing countries share similar struggles with unreliable community electrical power, and digital network infrastructures (where they exist) that offer only slow, unstable, and expensive internet access (ITU, 2022, 2023; Tafazoli, 2021b; Tarus et al., 2015). This was true at the best of times prior to the pandemic emergency, and reliance on pandemic ERT only highlighted such challenges.

Among many examples that can be found in the pandemic-era literature, Nambiar (2020) surveyed 70 teachers at colleges and universities in Bangalore, India and found that a majority (64.2%) reported power cuts along with poor internet connections as the main problems faced when conducting their courses online. Clarin and Baluyos (2022), studying the experiences of teachers at college-preparatory junior and senior high schools in a Philippine city, discovered that unstable and slow internet connections affected teachers' ability to design activities and conduct classes. Krajka (2021) found that student teachers leading online primary- and secondary-school EFL grammar and vocabulary classes during the pandemic lockdowns in Poland frequently mentioned weak internet connections as a problem.

In a qualitative study of 28 EFL instructors conducting ERT in Iran, Tafazoli (2021b) noted that poor internet connectivity, low speeds, and high connection fees were mentioned as obstacles by 25 participants, while 21 teachers described dealing with widespread power outages. Ferri et al. (2020) convened a lockdown-period online discussion group of 15 experts from the ICT, education, and social sciences fields in Italy, Estonia, Lebanon, Portugal, Hungary, Slovakia, and the United Kingdom (UK). Inequities in teacher and student access to digital devices and high-speed internet emerged as a prominent effect observed in every country, and many participants viewed the crisis situation as acting to further increase existing inequalities in many countries.

Crompton et al. (2023), reporting from South Africa during the pandemic, described families that were challenged to maintain access to a consistent electricity supply in order to ensure the continuation of children's learning while at the same time struggling to access such basic necessities as running water. Bozkurt et al. (2020) conducted a large collaborative case study that drew data from 31 individual country-specific case studies documenting conditions regarding the provision of pandemic ERT. Challenges with securing reliable (or any) electrical power and internet connections figured prominently in a number of cases.

2.3.1.1 The Digital Divide in Palestine

ITU data indicate that internet availability is relatively widespread in the Arab States, with 76% of urban households and 42% of rural households having a computer and/or internet access at home as of 2021 (ITU, 2022; see Table 2.2).[4] Mobile internet accounts for much of the overall

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[4] Internet user numbers surged during the pandemic period (Kemp, 2023); updated data is available, but 2022 data is preserved in this section to better capture the situation during the pandemic emergency.

access in the region, as 70% of the population has access to 4G mobile connectivity and a further 30% can access 3G. However, the holistic ITU data present a high-altitude view that is skewed by the wealthy Gulf Arab States. For example, as of January 2022, fixed connection internet penetration rate/mobile phone account subscriptions for Bahrain were reported at 99%/101.0% of the population; Kuwait, 99%/149.5%; Qatar, 99%/151.8%; Saudi Arabia, 97.9%/115.3%; and the United Arab Emirates, 99%/169.4% (Kemp, 2022).[5]

Compared to these oil-rich Gulf States, Palestine might be regarded as falling on the wrong side of the digital divide, but it meets the average for the Arab world, with internet penetration at 70% of the total population as of January 2022 (Kemp, 2022). Rapid growth in internet adoption is driven by increasing smartphone use; in Palestine, the number of active cellular mobile accounts represented the equivalent of 82.7% of the total population (Kemp, 2022). Structural obstacles to the achievement of universal connectivity include factors previously discussed: undeveloped infrastructure, power outages, unreliable networks, low bandwidth, and expensive connections.

Table 2.2: *Internet Adoption in Palestine and Neighbouring Countries (26 January 2022)*

Country	Population	Internet Users	Percentage of Population	Mobile Connections
Palestine	5.28 mil.	3.73 mil.	70.6%	82.7%
Israel	8.86 mil.	7.97 mil.	90.0%	117.3%
Jordan	10.28 mil.	6.87 mil.	66.8%	78.1%
Lebanon	6.73 mil.	6.01 mil.	89.3%	75.2%
Syria	18.81 mil.	9.25 mil.	49.2%	78.3%
Egypt	105.2 mil.	75.66 mil.	71.9%	93.4%

Note. Adapted from 'Digital 2022: Local Country Headlines Report' by S. Kemp, 2022, 26 January, *Datareportal* (https://datareportal.com/reports/digital-2022-local-country-headlines). Reproduced by permission of the publisher; copyright by Kepios Pte. Ltd.

Beginning on 5 May 2020, during the early stages of the pandemic ERT programme, Moghli and Shuayb (2020) surveyed 274 K-12 teachers in Jordan (*n*=65), Lebanon (*n*=119), and Palestine (*n*=90) regarding their capabilities to deliver online distance education, the type and quality of their internet connections, and the sources of support available to them. The teachers in Palestine struggled with expensive and unreliable internet connections and limited technical support. In any case, connectivity problems were often moot; daily power outages were the overriding factor in determining the effectiveness of digitally mediated teaching methods: 46% of teachers in Lebanon and Palestine dealt with daily electricity cuts lasting from 3 to 12 hours.

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[5] Individual mobile subscribers may own more than one account.

Bashitialshaaer, Alhendawi, and Avery (2021) studied the use of electronic exams as part of pandemic ERT programmes at four universities in Gaza and found frequent power outages reported as a problem by 47.3% of students (*n*=55) and 77.3% of professors (*n*=97). Unreliable/slow internet access was also noted by 36.4% and 70.1% of participants, respectively.

In addition to unreliable connectivity, a significant number of people in Palestine live in internet 'dark zones', and many students have limited access to computers or smart phones, especially in the vulnerable areas of Gaza, East Jerusalem, and Area C (UNESCO, 2020b). It is common for homes in remote villages to lack internet connectivity (Dweikat & Raba, 2019). There is also variability in the availability of online access at schools. Moghli and Shuayb (2020) found that students attending private schools reported good or very good internet connectivity during the pandemic emergency, while those in United Nations Relief Works Agency, government, and non-formal schools indicated that connectivity was weak to good.

2.3.2 Inadequate Institutional Infrastructure & Support

In cases where community infrastructure conditions may be developed and reliable enough to support e-learning, it was not uncommon for infrastructure deficiencies to emerge on the institutional level under the pressure of ERT. Many institutions were unprepared to deliver fully online education; this was in fact the case at WBU, the research site for this study. It was so commonplace among institutions in the developing world that it hardly bears mentioning. If there are problems supplying electricity and no or only marginal internet access, schools are not going to have e-learning infrastructure.

In their global-scale study, Bozkurt et al. (2020) documented a number of instances where television, radio, or traditional printed materials were used for distance education delivery during the pandemic. In India, where internet penetration was around 45% during the pandemic period (Kemp, 2022), officials launched programmes that included extensive use of radio, and educational television services provided one channel per grade 1–12. The Philippines, South Africa, Uganda, and many other African countries, and other nations in the low- and medium-income tiers or with significant rural populations (Egypt, Ireland, Saudi Arabia, South Korea) also arranged dedicated educational radio and television services. The Turkish Ministry of Education launched an educational TV channel that was also accessible via satellite, streaming, and mobile apps (Bozkurt et al., 2020). The case of Kenya offered an example of thousands of

students who may not even have access to radio or TV; online e-learning is a distant fantasy in such situations. Feeding children who were not able to access school food programmes was mentioned by Bozkurt et al. as a concern that far outweighed considerations of e-learning access in many situations, and this was the case in a number of countries including highly-developed nations like the USA. In January 2021, United Nations Children's Fund USA (2021) reported that more than 39 billion in-school meals had been missed in America since the start of the pandemic.

Perhaps more interesting are questions raised by cases where institutions and faculty that had ostensibly made progress towards establishing the capability to support digitally mediated teaching and learning still managed to have serious difficulties with ERT. For example, Almaiah et al. (2020) interviewed 30 students and 31 e-learning systems experts at six universities in Jordan and Saudi Arabia as part of an exploration of critical challenges and other factors affecting the successful use of e-learning systems during the COVID-19 emergency. The dominant obstacle to e-learning programme success was found to be the presence, quality, and accessibility of technical infrastructure and associated digital tools. Note that it was the institutional e-learning experts themselves reporting difficulties in these areas; they also identified the same factors as being the most important for programme success.

These findings correspond with some situations in Palestine revealed by Obaid et al. (2020) in an investigation of preparations for the shift to ERT being made at several leading universities in the country. At some institutions, e-learning infrastructure was present but necessary technical support systems were not in place, and in many cases, aging and unreliable institutional infrastructure hindered efforts to take programmes online. Ali and Abd Algane (2020) reported a 'lack of specialists in e-learning, and poor technical support…poor qualification of technicians, weak and interrupted internet' (p. 212). This seems out of place against the researchers' description of the institution's adoption, months before the pandemic, of the Blackboard LMS, and preparations to begin offering a selection of fully online courses beginning in the autumn of 2019.

Institutional support is critical to the achievement of a successful transition to online learning (Alqahtani & Rajkhan, 2020; Davies & Davies et al., 2020; Hartshorn & McMurry, 2020; Todd, 2020). According to Kebritchi et al. (2017), minimal levels of institutional support for online instruction should include (a) comprehensive technical support, (b) faculty and student training aimed at maximizing the ability to leverage to benefits of online teaching and

learning, and (c) support for the development of multi-media course content designed for online delivery. Basbeth et al. (2021) characterise institutional support as the services institutions provide to help faculty members develop and improve their teaching effectiveness, including professional development for the implementation of educational technology, technical support, graphic designers for content development work, and assistance with teaching.

Investigating the critical success factors of an e-learning programme at an Indonesian university, Anggrainingsih et al. (2018) found that the five most influential factors as identified from the instructors' perspective resided primarily at the institutional level. They included university financial and regulatory policy regarding e-learning, technical support, relevant content, and course quality. In a large-scale study of teachers (N=1949) working at primary, lower secondary, secondary, and vocational schools during the pandemic in Germany, Austria, and Switzerland, Huber and Helm (2020) found statistically significant linkage between teachers' self-efficacy related to digital teaching and the technical resources available at their schools.

Even in non-emergency conditions, institutional support is essential to successful adoption of educational technology. Windes and Lesht (2014) found that 90% of inexperienced online teachers viewed assistance with adapting their course for online delivery as important or very important, while 75% of experienced teachers felt the same. Yet during the pandemic lockdowns in Palestine, Moghli and Shuayb (2020) found that teachers struggling to transition online had limited access to technical support and were therefore forced to self-study and/or rely on family, friends, and colleagues for help. The same phenomenon appears in Tafazoli (2021b); in a study of 28 teachers' experiences during ERT, only three reported receiving help from their institutions. Even in the resource-rich environment of American schools, Judd (2020) found inequities between schools in terms of teacher support, online access, and home resources.

2.3.3 Deficient Change Management Strategy

Poorly-managed change was one of the root causes of challenge associated with moving to ERT; in theory, nearly all difficulties with ERT come under this umbrella—they could have been averted given adequate lead time, the full support of stakeholders, and adept application of change management principles. In their study at universities in Saudi Arabia and Jordan, Almaiah et al. (2020) identified managing change from a policy-making standpoint and handling resistance to change on the part of instructors and students as a primary challenge. Recall that

the institutions Almaiah et al. investigated had some form of e-learning programme development in place prior to the pandemic. Even where institutions already had fully-functioning online course programmes, the literature of the pandemic era commonly documents disruption (Bozkurt & Sharma, 2020; Hodges et al., 2020). Sudden, unmanaged or improperly-managed change was one of the easily identifiable causes of such disruption.

Appropriate change management strategy is a critical element of successful implementation of innovation in education, or even alterations as minor as adjustments to daily schedules (Lamie, 2005; Evans, 2015). Change management is a particularly important factor when an institution is moving from a traditional educational model to an e-learning paradigm (Affouneh & Raba, 2017; Almaiah et al., 2020). Such a major change normally has implications for educational legislation and policies, involves many considerations at the institutional administrative level, and should account for the views and preferences of instructors, students, and community stakeholders (Almaiah et al., 2020). The literature on change management in education indicates that education is inherently conservative, with continuity being a core value of school life and a necessity to passing on bodies of established knowledge and norms of social behaviour to new generations (Evans, 2015). In contrast, change is a disruptor and stressor, and 'While workers in all settings experience change as loss, this is especially true in education, where continuity is so important' (Evans, 2015, Meaning section, para. 1).

The general literature on change frequently describes a causal association between change and uncertainty as well as the possibility of stronger reactions such as hostility, anger, and fear; this holds true whether change occurs at the organisational or personal level (Lamie, 2005). In the case of pandemic ERT, some research suggests that changes in education were occurring in an already enhanced atmosphere of fear (Al-Maroof et al., 2020). Powerful factors contributed to this climate of fear including threat of illness, the possibility of education disruption and subsequent personal failure, family lockdown situations, and loss of social relationships (Al-Maroof et al., 2020). Al-Maroof et al. (2020) propose that increased levels of fear had the potential to influence technology resistance and acceptance among teachers and students at a time when acceptance was critical.

Chin and Benne (1969) list three strategies for effecting change in any human system:
1. Power-coercive—the use of external sanctions or threats of such, usually political and economic, sometimes moral, to overcome resistance and implement change.

2. Rational-empirical—using information management to illustrate and emphasise the benefits of change for the purpose of producing willingness to change among participants.

3. Normative-re-educative—this strategy prioritises changing the culture of a school and values the individual as an active receiver of knowledge who will arrive at assumptions and take actions in furtherance of innovation based on changes in their personal beliefs and assumptions.

Like the vast majority of citizens around the world, when COVID-19 emerged, educators including the teacher participants in the present study were forced into a universally-applied combination of the power-coercive and rational-empirical change models in both personal and professional realms. Regarding the changes specific to education and school operations, the power-coercive strategy dominated, and in Palestine as elsewhere, schools and HEIs were closed and F2F classes ended via legislative action and accompanying policy that directed sanctions for failure to comply.

Lamie (2005) characterises the power-coercive approach to change implementation as easy to use and often immediately effective in overcoming initial resistance, but vulnerable to failings and ineffective for producing real commitment to the desired change(s). This strategy assumes totally passive recipients, ignores teachers' individual needs and interests, inhibits teacher creativity, and can incite hostile attitudes toward the desired change (Lamie, 2005). Outright opposition and conflict are possibilities, including a responding application of power-coercive strategies that may then initiate a circle of conflict (Kennedy, 1987).

2.3.4 Unprepared Teachers

During the pandemic, many teachers were forced to push their F2F classes online with no changes to curriculum or methodology, and often without corresponding teacher training or in-place institutional technical infrastructure and capability (Carrillo & Flores, 2020; Escobar, 2020; Hodges et al. 2020; Judd et al., 2020; UNESCO-IESALC, 2020). The challenge faced by teachers in transitioning to ERT was of course exacerbated in many cases by insufficient professional development that left them struggling with inadequate levels of digital literacy (Bozkurt at al., 2020; Shraim, 2012; Shraim & Crompton, 2020). This is not surprising—long before the pandemic, the literature (cf. Allen & Seaman, 2012; McQuiggan, 2012; Cicco, 2013) showed that 'many faculty members transition to online instruction without the necessary training, support, or skills needed to be successful' (Cochran & Benuto, 2016, p. 42). This is the case even though there is a rich body of literature emphasizing the importance of and

possibilities for preparing faculty to make the shift to online teaching (Allen & Seaman, 2012; Batts et al., 2010; Frass et al., 2017).

Given that e-learning became a focus relatively recently, in many regions in-service teachers may not receive technology training during their teacher education programmes, and so lack the technological fluency and other skills necessary to properly use online tools, or use them well enough to deliver effective educational content to students (Carrillo & Flores, 2020; Eachempati & Ramnarayan, 2020). Low levels of digital literacy stemming from lack of general practical experience with technology and insufficient professional preparation to integrate technology into teaching practice and teach online are known to be among factors that influence teachers' beliefs about e-learning and their self-efficacy in regard to teaching online (Baroudi & Shaya, 2022; Garzon & Garzon, 2023). The result can be a lack of confidence and a sense of uncertainty when teachers are faced with the need to adopt online educational technologies for lesson delivery (Benjamin, 2017; Kandasamy & Shah, 2013; Razak et al., 2018).

Research uncovering deficits in digital literacy among developing world HEI academics, students, and staff was common long before the pandemic emergency. For example, Shraim (2012) commented that, in developing countries including Palestine, online learning is not viewed as an effective approach to teaching and learning, and many teachers are not prepared to teach online. Concerning the use of e-learning in Palestinian ELT programmes in particular, one of the challenges is a lack of EFL educators who have the professional preparation needed to incorporate educational technology into their classes (Rixon, 2013). Administrators, teachers, and students are fixated on traditional instructional methodologies, resistant to change, and reluctant to try new teaching/learning methodologies that do not align with a traditional classroom setting (Kayed, 2013; Rixon, 2013).

Specialised training is a requirement for teachers to work effectively in online e-learning environments. Tafazoli (2021a) studied 12 Iranian pre- and in-service EFL teachers' expectations of a CALL professional development course offered at an Iranian university during the pandemic emergency. Many of the teachers affirmed that CALL training was a necessity for them. A common expectation among them was that such professional development would have been offered before ERT began or at least in the first weeks of online teaching. In some cases, training may be available, but prospective teachers may not be motivated to prepare for work in virtual classrooms. Wilson and Acheampong (2014), working in Ghana Africa, gathered data from 220 teachers studying at four teacher education institutions where CALL teacher training

consisted of three mandatory ICT courses, including one apparently focused on CALL: *Application of Technology in Instruction*. Findings indicated that the teacher trainees had low levels of technological literacy and were not exploring technology tools available to support their personal professional development.

Meihami (2021) investigated eight Iranian EFL teacher trainers' experiences delivering CALL teacher education as part of undergraduate TEFL qualification programmes. Findings indicated that inertia, ignorance of strategies for training CALL educators, insufficient time to address CALL as a curriculum component, insufficient infrastructure, and lack of established standards and methodology for the administration of CALL teacher education were significant obstacles. In Moghli and Shuayb's study (2020) study of ERT in Lebanon, Jordan, and Palestine, teachers self-reported 'somewhat to good' prior experience with using personal digital devices, but had little experience with educational technology (for example, online education platforms and other e-learning ware), and limited professional development. Similarly, a study of 28 Iranian EFL teachers also thrust into pandemic ERT revealed that most had limited experience using technology in their teaching practices, with 17 of the participants reporting that 'they had no idea about online teaching' (Tafazoli, 2021b, p. 398).

Obaid et al. (2020) remarked that a pre-existing lack of digital literacy along with outdated technology and a deficit of relevant policies and procedures in many Palestinian universities impeded the shift towards using technology in ERT. When academics, staff, and students attempted to use technology in new and innovative ways, they risked being shut down by IT departments dominated by fear of losing control or concern about issues of risk and compliance (Obaid et al., 2020). Al-Samiri (2021) studied the use of ERT to deliver EFL classes at a Saudi Arabian University during the pandemic and found that inadequate digital literacy among some teachers was a problem that was compounded by insufficient technical support. Bozkurt et al. (2020) found wide variation in digital skills among teachers, students, and parents alike to be an obstacle to the effective use of e-learning. Cases like the ones described here can be seen as supporting Hinostroza's (2018) contention that facile ICT use in everyday life does not necessarily translate to effective use in teaching and learning. Both Shraim and Crompton (2020) and Bozkurt et al. (2020) noted that the struggles of unprepared teachers (and students) with ERT added to the risk of increasing negative perceptions of online education among teachers, students, and other stakeholders.

2.3.5 Teacher Resistance to Technology Adoption

Unprepared teachers, even if they are experienced, are likely to be resistant to accepting technology adoption and integration into their practices (Conrad & Openo, 2018), and teacher resistance to innovation is a perennial issue in the tradition-bound education systems of the Arab world (Akkari, 2004; Hamdan, 2014; Hamamra et al., 2021). The observations Obaid et al. (2020) made of the situation with technology at several leading Palestinian universities have been described in several discussions in the preceding sections. In a pre-pandemic study of e-learning uptake at Saudi Arabian universities, Almaiah and Alyoussef (2019) found that even though e-learning systems were available, teachers were resistant to change and some had not engaged with the systems or created e-learning courses.

Later, during the ERT regime, Almaiah et al. (2020) investigated e-learning system usage at five universities in Jordan and one in Saudi Arabia. These researchers found that, although e-learning systems had been in place for about three years, change management issues, technical issues, and financial support issues had been hampering uptake, leaving faculty and students to struggle under the imposition of ERT. Similarly, Ali and Abd Algane, (2020) describe the emergency shift of all classes at a Saudi university to the school's Blackboard LMS as hindered by obstacles 'related to university instructors as some of them dealt with an unfamiliar technique and others suffered from the lack of necessary training and experience in the field of information and communication technology' (p. 212). It is difficult to reconcile this with Ali and Abd Algane's descriptions of the university as prepared and the instructors as having access to a rich selection of institutional training resources and professional development opportunities many months prior to the emergency.

Teacher resistance to innovation with technology has been described in the ed-tech literature since the first days of computers in classrooms. Early research on teachers' use of technology uncovered a variety of reasons for faculty resistance to adopting the use of computers in class (Hannafin & Savenye, 1993). This older work still holds up well because it deals with human nature, which is not prone to change. Wiske et al. (1988) conducted one of the early broad-scale studies of educational computer use. In-depth telephone interviews with public school teachers from ten regionally-diverse school districts across the U.S. revealed that teachers may fear losing control of the classroom centre stage position or appearing incompetent in front of their students. Hannafin and Savenye (1993) supported this contention, noting that

teachers may feel threatened by change and suddenly dispensable, vulnerable to losing their traditional role of 'imparter of knowledge, and controller of activities' (p. 26).

Various strains of fear are often cited in the early research literature as a reason for teacher resistance that may prevent their use of technology in the classroom (Hannafin & Savenye, 1993). Summers (1990) found that teacher education majors in the United Kingdom feared computers before having any substantive experience with them. Wiske et al. (1988) described some teachers as fearing the effects that computers might have on teaching and learning. Fear of making errors (Gresham, 2020), or of failure to complete tasks on time (Appavoo, 2020), or of data loss and privacy breaches (Distler et al., 2020) are all fear factors associated with resistance to technology acceptance.

Wiske et al. (1988) also interviewed other teachers who were not afraid—they simply decided they were not interested in using computers. A commonly reported reason given by teachers to explain their reluctance to integrate new technologies is satisfaction with current lesson plans (Johnson et al., 2017). Some teachers become disillusioned by problems with managing the technology or because they are forced to use inappropriate software (Wiske et al., 1988). Issues like this can contribute to difficulty and frustration with learning to use technology and result in teachers abandoning their efforts (Sandholtz et al., 1992).

Age-gap in digital literacy and technological fluency as a source of teacher resistance to adoption and integration is often mentioned in the literature around educational technology and online education (cf. Eachempati & Ramnarayan, 2020; Raman & Yamat, 2014; Rauf & Swanto, 2020; others). Eachempati and Ramnarayan (2020) observed that many students of the current generation may be technophiles who are comfortable with technology, but the same is not necessarily true for teachers from an older generation. Although age can play a role in teacher willingness to adopt new technology (Raman & Yamat, 2014), in some cases assumptions about the young generations of so-called digital natives (Prensky, 2001) do not hold true. Hartshorn and McMurry (2020) investigated the effect of the COVID-19 pandemic on EFL teachers and learners at a university in the U.S. Overall findings indicated that the perceived negative effect of moving to online teaching and learning was more severe for the students than the teachers.

It is well-established that teacher confidence and 'computer self-efficacy' as per Kim and Park (2018) have significant effects on teachers' acceptance of technology innovations in their practices (Lemon & Garvis, 2015; Wen & Kim, 2020). Self-efficacy theory is drawn from Bandura's (1982, 1997) work on human agency and based on the view of individual perceived

self-efficacy as 'beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments' (p. 3). Perceived self-efficacy is 'concerned with judgments of how well one can execute courses of action required to deal with prospective situations' (Bandura, 1982, p. 122). The concept of self-efficacy has long had an important influence on thinking and research about teacher's willingness to experiment with technology integration (cf. Compeau & Higgins, 1995; Conrad & Munro, 2008; Igbaria & Iivari, 1995).

The university IT and e-learning systems experts interviewed by Almaiah et al. (2020) identified teacher and student self-efficacy as 'one of the core elements in determining the adoption of e-learning systems in educational institutions' (p. 5275). Bandura (1982) supports this sort of observation with the contention that individuals' sense of self-efficacy influences how much effort they will spend attempting to succeed at something, and how long they will persevere when aversive experiences are encountered. People who doubt their own capabilities will slack their efforts or give up when challenged; those with a strong sense of self-efficacy work harder in an attempt to overcome the challenge (Bandura, 1982). Working on one of the first formal theoretic models to explain why teachers will implement an educational innovation, Wozney et al. (2006) surveyed 764 teachers and found that factors related to teachers' expectations of being successful in implementing technology innovations were the most predictive of teacher willingness to take the initial risks of innovating, and then persevere once they have begun.

Self-efficacy as conceptualised by Bandura (1982, 1997) is a belief or cognition about oneself; in relation to teachers and technology, it is a teacher's belief or perception about their personal relationship with technology and how that relationship might proceed. The field and practice of research into teacher cognitions and beliefs is based on the premise that 'understanding the unobservable dimension of teaching is key to making sense of the process of becoming, being, and developing as a teacher' (Borg & Sanchez, 2020, p. 16). This means that capturing information regarding teachers' beliefs and perceptions about their practices, the psychological processes through which they make sense of their work, is foundational to understanding teachers (Borg, 2015b). It is a tenet of the educational technology literature that teachers' perceptions, beliefs, and attitudes around educational technology and digitally-mediated education can have significant effects on the adoption of technology into their practices (cf. Abuhmaid, 2020; Ertmer, 1999, 2005; Galvis, 2012; Mumtaz, 2000; Wen & Kim, 2020; Wiske et al., 1988; many others).

Studying Jordanian teachers' (N=126) perceptions around the use of flipped learning, or flipped classrooms, in the academic year 2018/2019 just prior to the pandemic emergency, Abuhmaid (2020) observed that teachers' perceptions are a key factor in their adoption and implementation of new technologies. Abuhmaid notes that positive teacher attitudes towards new technologies and innovations make it more likely that teachers will search for ways to integrate them into their practices. Regarding the adoption and effectiveness of technology during online ERT in particular, Raygan and Moradkani (2020) studied the effects of school climate, TPACK, and attitude on Iranian EFL teachers' (N=209) success at integrating technology use into their classes during the pandemic emergency. Using Pearson correlations and structural equation modeling, Raygan and Moradkani found that school climate predicts technology integration mediated by teachers' attitudes.

Individual teacher attributes are intertwined with their attitudes and perceptions about technology integration. For example, Alea et al. (2020) surveyed 2300 teachers from all levels of education (K–12 through tertiary) in the Philippines regarding their self-perceptions of readiness to engage in online distance education in the context of ERT. They found that factors including gender, age, and length of teaching experience affected teacher perceptions around readiness. Alea et al. observe that this latter factor presents a paradox in that older, more experienced teachers are accustomed to handling educational continuity challenges through times of natural disaster and other calamities, but in line with typical views of technology age gap as discussed above, are also likely to command less technological fluency than younger teachers.

Alea et al. (2020) also note the effects of matters related to digital divide, in this case primarily geographic variations in access to network infrastructure, technology tools, and training programmes, affected teacher self-perceptions around readiness to engage in online ERT, a finding that was later supported by Junaidi et al. (2022). Based on their study of 124 Malaysian ESL teachers' perceptions and attitudes towards the adoption of ERT, and a review of literature around the topic, Junaidi et al. conclude that effects of a lack of access, experience, and training typically played prominent roles in shaping the attitudes and beliefs that teachers in developing countries held towards integrating technology into their practices during successive waves of the COVID crisis.

For the present study of the responses of teachers suddenly thrust into ERT, I found it useful to consider information like that presented immediately above as a frame for Borg's

(2015a) contention that teachers' beliefs about teaching and learning 'act as a filter through which teachers interpret new information and experience' (p. 369). Moreover, there is a bidirectional interaction between beliefs and practices in which beliefs influence practices while practices can also lead to change in beliefs (Borg, 2015a). Huang et al. (2023) offer an example of this in their study of the perceptions of five older, experienced EFL teachers during ERT implementation at a Chinese university. The researchers found that several of the participants initially had negative attitudes towards ERT, then gradually adopted positive views after successfully developing coping mechanisms to deal with the stress of transitioning to ERT and finally realizing that the technology and techniques in use were invaluable in emergency situations and also generally useful additions to their teaching skill sets.

In a demonstration of the powerful effects of teacher belief and attitude, Huang et al. (2023) documented some of their participants as reporting that other experienced teachers at the institution were unwilling to adopt ERT and tried but failed to convince administrators to halt teaching during the emergency. Another colleague who taught literature 'did not believe in online teaching, so he did not take any classes during the period of suspension' (Teacher E, in Huang et al., 2023, p. 8). Huang et al. observed that teacher attitude and openness to innovation made the difference between teachers who successfully adapted to ERT and finally developed 'fondness and emotional attachment toward technology use in teaching' (2023, p. 11) and those who continued to struggle throughout the implementation of ERT. The successful teachers reconstructed their professional identities to become learners again, threw themselves into developing TPACK, and developed coping strategies that included building online peer communities and drawing on support from family members, colleagues, and technology-proficient students (Huang et al., 2023).

I contend that what teachers believe, how their perceptions and beliefs might change, and how these factors effect observable practice must all be considered holistically and as situated phenomena. An ecological perspective of development and learning as per Bronfenbrenner (1979) provides appropriate conceptual framing. The ecological perspective considers the evolving interaction between the developing person and the environment, with development in this case defined as 'a lasting change in the way in which a person perceives and deals with his environment' (Bronfenbrenner, 1979, p. 3). In Bronfenbrenner's model, the ecological environment is exemplified as a set of nesting structures ranging from the innermost, most immediate setting—exemplified by Bronfenbrenner as home, institution, or classroom—

out to all surrounding settings, including sociocultural, and the relationships between all settings. In sum, a learning ecology is the complete set of contexts, physical, virtual, social, and psychological, including all life domains and associated beliefs, that provide opportunities for learning (Barron, 2006; Bronfenbrenner, 1979; Looi, 2001; van den Beemt & Diepstraten, 2016). In my viewpoint, the ecological perspective accurately situates teachers' development of perceptions and beliefs around the use of technology in general and in their practices.

To some extent, the current study can be viewed as an extension of that genre of teacher cognition research exemplified by Kagan (1990): concerned with teachers' self-reflection; beliefs and knowledge about teaching, students, and content (epistemology of teaching); and awareness of problem-solving strategies endemic to classroom teaching. Or in the case under study here, teaching in virtual classrooms. As such, the research can be informed by an extension of the learning ecology model to frame teachers' "learning" of their beliefs and attitudes regarding the digitalization of their practices. Influenced by many factors and subject to the possibilities of constant change or little change at all, teachers' perceptions, beliefs, and attitudes towards the adoption of technology, including under the conditions of ERT, are inextricably bound with outcomes in terms of successful integration and effective implementation or the opposite of both of these.

From a coldly practical standpoint, as noted above, for most teachers, the shift to online ERT involved a power-coercive change (Chin & Benne, 1969; Lamie, 2005). With little opportunity or outlet for resistance short of job loss in an already difficult economic environment, teacher beliefs and perceptions were of little concern to those mandating and implementing the change to ERT, and except for isolated cases such as that reported by Huang et al. (2023), classic models of teacher resistance to technology integration did not typically apply. However, examples in the literature reveal that ways that teacher beliefs, perceptions, and attitudes contributed to their lack of readiness when being technologically fluent became a matter of urgent necessity. As cases like the ones described by Ali and Abd Algane (2020), Obaid (2020), Almaiah and Alyoussef (2019), and Almaiah et al., (2020) illustrate, teachers often resisted and refused the integration of technology when given good opportunities under favourable conditions, and this certainly contributed to the challenges of transitioning to ERT.

2.3.6 Teacher Role Shift

Wiske et al. (1988) were not alone in recognising the effects of computer technology can have on teachers' sense of identity and established roles in the classroom. Oates (1985) predicted that 'A profound change in the role of teachers will accompany our movement into the information society during the next 15 years' (p. 42). Oates goes on to explain that students will be empowered to engage in personal learning, leaving teachers to move from the traditional role of 'fount of knowledge' to being facilitators who create conditions for students to learn how to use knowledge wisely. Hannafin and Savenye (1993) also pointed out the fundamental role shift required of teachers who choose to integrate computers in their practices. They observe that the interactive nature of the technology and its support for student-centred activities, exploration, and autonomous problem-solving have the effect of positioning the teacher as facilitator and mentor rather than the sole director of learning. Current research supports this view of the educator taking a position closer to that of a consultant or moderator, with pedagogy along with the provision of feedback modified to suit the specific requirements of teaching and learning in virtual classrooms (Ferri et al., 2020).

2.3.6.1 Student-Centred Teaching

Student-centred approaches to teaching and learning include a holistic, constructivist-informed focus on students, their learning processes, and contextual matters—for example, community, culture, content, and instructional practices (Hoidn & Reusser, 2020; Otting, 2009). In student-centred models of instruction, students are given more control over and responsibility for the learning process, which is viewed as a collaborative process undertaken by students and teachers rather than a one-way transfer of knowledge from teacher to students (Otting, 2009) (see Table 2.3). The association between student-centred epistemologies of education and online education has historically been an extensively-covered matter of interest in the e-learning literature (cf. Dron, 2007; Ferri et al., 2020; Hannafin & Savenye, 1993; Johnson et al., 2017; others).

Dron (2007) offers an example of the sort of change teachers may face when moving towards student-centred instructional paradigms in online education. New definitions of 'teacher' and 'teaching' may need to be accommodated and questions can arise concerning what exactly a teacher is and does. Dron proposes possible scenarios in which 'the teaching role may often be split across many individuals and resources' (2007, p. 5), with the definition of teacher expanded to potentially include non-human entities such as texts, videos, computer programs, and other resources. The necessity for this type of essential change is a reason why

the movement towards student-centred practice may be a source of teacher discomfort or resistance to the adoption of online e-learning (Hanson, 2009; Krajka, 2021). Teachers' epistemologies of education—their beliefs regarding schools, instruction and their own identities and positions in relation to both—may need to be altered, and this can be a significant factor underlying resistance to change at both personal and institutional levels (Dwyer et al., 1990).

Table 2.3: *Teacher-Centred vs. Student-Centred Learning*

Teacher-Centred	Student-Centred
Class focus is primarily on the instructor.	Class focus shared by students and instructor.
Teacher talks more than all students combined.	Students talk more than the teacher.
Student talk is directed at the teacher.	Students talk with each other and the teacher.
Class topics are chosen by the teacher.	Students participate in choosing class topics.
All students learn the same content.	Content may be differentiated.
Teacher is owner & gatekeeper of knowledge.	Multiple sources of knowledge are valid.
Student sit in rows in a quiet classroom.	Students form groups, class may be noisy.
Students are viewed as passive and uniform vessels to be filled with teacher knowledge.	Students are viewed as primary and unique agents of learning in their own rights.
Teacher poses questions then explains correct answers.	Students pose questions then explain correct answers.
Teacher corrects students and is the final authority on correct answers.	Students correct each other and are able to locate and cite appropriate experts.
Teacher makes class rules and sets norms then enforces them.	Students establish class culture and reinforce norms among themselves.
Teacher maintains position as ultimate expert at all times.	Student are encouraged to demonstrate expertise.
Teacher defends an unquestionable identity as master of subject or content.	Student knowledge and skill is valued and put to work in the classroom.

The level of compatibility between teacher or student epistemologies and the beliefs represented by particular systems, processes, and acts of education and teaching is a concept that O'Siochru and Norton (2014) refer to as 'epistemic match.' Discussing the case of students adapting to an online course, O'Siochru and Norton contend that the degree of match between students' epistemological beliefs about school, teaching, and learning and the methods of study associated with an academic discipline will influence student motivation, engagement, satisfaction, and ultimately academic success in that discipline. The principle of epistemic match can be extended to the case of teachers' epistemologies of education and specific teaching

methodologies they may be compelled to adopt. For some teachers, the shift to a student-centred instructional model can trigger epistemic mismatch and conflict as per the epistemic match model proposed by O'Siochru & Norton.

Aboud (2020) studied EFL teachers at Cypriot universities and found that they were aware of ways that the adoption of e-learning impacted their professional identities as they moved into a role as facilitator instead of controller of the learning process. They were able to reconcile conflicts between their new roles and their self-identities as teachers and beliefs regarding teaching and learning. Chiasson et al. (2015) found that faculty who moved their F2F courses online felt they had less control in the online course, with the result that students had to take more responsibility for their own learning.

In a study of the use of Zoom, WhatsApp, and Instagram by four teachers in their ESL classes at a Hong Kong HEI, lower formality levels and an increase in perceived teacher/student equality were documented side-effects of using the online communication tools (Yeung et al., 2023). One teacher in this study stated directly 'The flattening of hierarchy between teachers and students could potentially threaten the teacher's authority both inside and outside the classroom. Clearly, the aforementioned needs to be considered and dealt with whenever classes are to be switched online' (Yeung et al., 2023, p. 201).

For some teachers, the loss of full control of the classroom and the dissemination of knowledge represents a threat because it triggers epistemic mismatch, with reconciliation involving a re-envisioning of the professional self, something many people find very difficult as it appears to undermine the ontological security of their academic identity (Hanson, 2009). However, despite any epistemological challenges or discomfort, to be effective in virtual classrooms, teachers must undergo a paradigm shift from teacher-centred to student-centred models of teaching and learning (Johnson et al., 2017).

Moore (1993), the developer of transactional distance theory, explains the importance of implementing student-centred approaches when teaching in virtual spaces. Transactional distance theory positions structure in distance education as one variable that controls two others: dialogue between learning community members (transaction) and autonomy as a learner attribute. When the teacher is the primary source of structure or control over learning processes, increasing structure acts to reduce dialogue and therefore lengthen transactional distance and decrease learner autonomy. In order to close transactional distance and achieve the full benefits

of digitally-mediated education, teachers must be prepared to consciously relinquish control, particularly in fully-online environments (Dron, 2007; Hanson, 2009).

2.3.6.2 Student-Centred Teaching in Palestine

According to a recent World Bank report, higher education programmes in the MENA region still skew toward theory over practice and tend to rely on outdated curricula and pedagogy while focusing on theory and memorisation as opposed to practical knowledge and analytical reasoning (The World Bank, 2019). Education in some Arab countries is influenced by the rigid structures of traditional Koranic schools and tends to value rote learning, religious education, and reverence for the ruling regime and the dominant ideology (Akkari, 2004; Muasher, 2014). Arab schools also commonly rely on standardized tests that present students with questions that are not meaningfully connected to the students' backgrounds or context (Almutairi, 2007; Duignan, 2012; Hamdan, 2012, 2013).

Scholars and observers of Arab educational system note that, in most Arab Muslim schools and universities, teachers and professors do not often engage in dialogue with students during the learning process but instead impose information that is of little relevance to the students' experiences, interests, and career needs (Almutairi, 2007; Duignan, 2012; Hamdan, 2012, 2013). Discussing public education in Saudi Arabia, Hamdan (2014) describes the traditional education cultures and systems as similar to Paolo Freire's analogy banking system of education, an approach that resembles an act of depositing information with the students as banks and the teacher as the depositor (Freire, 2011).

As in other Arab countries, classroom instruction in Palestine tends to be predominately teacher-centred, generally involving lectures where students sit passively listening and taking notes (Hamamra et al., 2021; Harandi, 2015). Hijjawi (2013) investigated Palestinian students' experiences with studying English and French in blended learning-style courses at two HEIs in Palestine. Participants reported appreciation for the positive aspects of online study such as flexibility of location and freedom from time constraints, but they also described difficulty managing their time and learning processes. Hijjawi concluded that, even with students from the digital native generations, merely introducing ICT is not enough to ensure their effective use of e-learning—successful innovation requires a shift in education paradigms from teaching-centred to learning-centred so that students are empowered to develop self-direction.

Findings like this one are supported by results from Muhammad, Albejaidi, et al., (2017), who showed that developing countries are increasingly capable of providing adequate technological infrastructure for e-learning, but the mindset and digital literacy levels of users, including instructors' tendency to view innovation as disruptive to their own views of academic traditions, appeared as the most critical contextual factors related to success or failure in the development and use of new e-learning programmes (Muhammad, Albejaidi, et al., (2017).

Working between March and August 2020, Hamamra et al. (2021) carried out interviews with a random sample of 100 students representing all Palestinian universities and enrolled in six types of English literature courses (*Special Topics*, *Shakespeare*, *Literary Criticism*, *The Novel and Short Story*, and *American Literature*). Citing their findings, Hamamra et al. remark that, in a major with a majority of female enrolees, the COVID-19 pandemic had the positive effect of liberating students to participate more fully in their learning process, become more active contributors in class, and own their personal knowledge and opinions without fear of being bullied by members of a teaching staff made up predominantly of older Arab males. Moving online 'has revealed the colonization of the pre-Covid 19 mode of education and has…freed students from the bondage of passivity and silence' (Hamamra et al., 2021, p. 5).

E-learning can offer many possibilities for students to participate in the sort of interactive, self-directed, and reflective learning experiences that make study more engaging (Raja & Nagasubramani, 2018). However, many Palestinian educators and students are resistant to change and reluctant to try new teaching/learning methodologies that do not align with a traditional classroom setting (Kayed, 2013). Even when e-learning opportunities are presented, sub-standard technology along with poorly developed curricula and pedagogical approaches result in students potentially missing both the advantages of face-to-face education and the benefits attributed to high-quality e-learning (Kayed, 2013).

2.3.6.3 From Teacher Roles to Teacher Identities

Teacher role shift is now acknowledged as a contributor to success in online teaching (Dron, 2007; Johnson et al., 2017; Lund & Aagaard, 2020), and since the pandemic emergency, the shift in teacher role and identity associated with going online is a phenomenon that is being extensively documented in a new research trend (cf. Bacova & Turner, 2023; Foreman-Brown et al., 2023; Shobeiry, 2024). In much of the latest research, the older concept of teacher role is

used interchangeably with teacher identity, or viewed as being part of or constrained by teacher identity (Shobeiry, 2024).

The model of identity adopted for the teacher identity paradigm is founded in Henri Tajfel's social identity theory, with its proposition that social groups provide a system of orientation for self-reference that provides group members with an identification of themselves in social terms (Tajfel et al., 1979). The conception and construction of teacher professional identity has been a subject of research interest for at least twenty years (Zhang & Wang, 2022) but it remains a contentious topic where much effort revolves around settling on a definition of teacher identity. In the field of second language teacher education, language teacher identity has also been drawing increasing attention and developing as a prominent research strand since the late 1990s (Miller, 2009; Yazan et al., 2013).

In operation, teacher identity is informed by a post-modern dynamic and recognised as a complex, multifaceted, and constantly shifting phenomenon of constant transformation and becoming (Foreman-Brown et al., 2023). Teachers' sense of identity is shaped both by early teacher development experiences and the social and political context (Lasky, 2005). Identity construction is integral to a teacher's processes of professional learning, and there is a close link between identity and the professional choices a teacher makes (Goh, 2015). Supporting Lasky's (2005) positioning of sociocultural factors as a primary influence, Goh (2015) contends that a teacher's identity 'should be conceptualized as a socially constructed, contextually situated and continually emerging (and changing) sense of self that is influenced by myriad factors' (p. xii).

2.3.6.4 Re-Imagining Teacher Identity

Bacova and Turner (2023) and other studies indicate that the threat and instability posed by ERT instigated hyper-awareness and clinging behaviour around identity on the part of many teachers, thus the ERT-generated burst of research activity around teacher identity. Foreman-Brown et al. (2023) contend that the pandemic crisis caused a wholesale re-imagining of teacher identity. In their view, the result of engagement in ERT was a reduction in teacher bias against online education along with changes in teachers' epistemologies of teaching. According to Foreman-Brown et al., this has led to increased innovation and an ongoing rise in positive experiences with digitally-mediated teaching and learning.

In one of the best examples of this new genre of teacher identity research, Shobeiry (2024) carried out a longitudinal qualitative study with 41 Iranian EFL teachers from 14 different

HEIs with the objective of investigating the teachers' reconstruction of their professional identities during ERT. The teachers went through a professional identity reconstruction process driven by (a) confrontation with the challenges of teacher-student communication in virtual settings, and (b) adapting their teaching strategies and classroom activities to the virtual classroom context. Shobeiry (2024) summarised the findings as indicating that the teachers adopted roles 'characterized by taking proactive steps to address challenges, displaying a receptive attitude towards virtual teaching environments, and developing a sense of confidence in their virtual teaching proficiency' (p. 25).

Bacova and Turner (2023) used a reflective narrative approach to explore the experiences of seven teachers working at tertiary education institutions in the UK during the COVID emergency. Their work was framed by the perspective of teacher vulnerability and focused on the impact on the teachers' perceived sense of identity arising from the move online and associated loss of access to F2F relationships with colleagues and students. The researchers found that teachers experienced vulnerability in regard to challenges to their professional credibility when online teaching conflicted with their views of sound pedagogical practice and conveyed a sense of loss of control over workplace conditions.

2.3.7 Labour- and Time-Intensive Teaching

Some instructors report that teaching online does not increase their workload and can even free up time to spend on other tasks (Meyer, 2012). Hakim (2020) surveyed 50 EFL instructors of seven different nationalities working at a Saudi university during the ERT programme and found that 80% agreed or strongly agreed that online teaching required no extra planning time. Moreover, 88% agreed that skills training for online teaching was not too time-consuming either.

It is more common for teachers to report that preparing and teaching e-learning courses is more time- and labour-intensive than F2F teaching. Windes and Lesht (2014) surveyed faculty members from a variety of HEIs in the Midwestern U. S. and uncovered the counterintuitive fact that more teachers who had experience with online teaching than those with no such experience agreed that teaching online takes more preparation than teaching F2F. During the pandemic emergency, Cambridge University Press (2020) carried out a survey of 1,000 teachers of English for academic purposes (EAP) in 99 countries; 69% of respondents reported that

lesson preparation was taking them more time. Most of the respondents (53%) were inexperienced at teaching online.

Basic education teachers at college-preparatory junior and senior high schools in one Philippine city encountered many challenges in online teaching in general, and reported spending more time in preparation due to the need to adapt existing and prepare new material such as PowerPoint slides that would be useful and engaging in the virtual classroom (Clarin & Baluyos, 2022). Fifty faculty members surveyed at an HEI in Jordan indicated a perception that preparation for online classes requires more time than preparation for traditional classes (Almahasees et al., 2021). Quashou (2022) found that the professors at a Palestinian university identified a high workload that interfered with their ability to develop e-learning materials as being an obstacle to e-learning. However, technical problems, primarily slow internet speeds, and a lack of financial incentives for teaching online ranked higher as challenges (Quashou, 2022).

The experience of extra workload appears to be particularly acute when transitioning a course from F2F to online teaching. Cicco (2013) describes conversion of an F2F course to virtual mode as requiring examination and possible revision of course objectives and expected outcomes along with the syllabus, lesson plans, and all course content. DeGagne & Walters (2009, 2010) found that teachers making this shift reported impressions of generally increased workloads, more challenging teaching conditions, and more time spent in preparation. Chiasson et al. (2015) interviewed HEI teachers tasked with moving their existing F2F course online and found that they regarded online course development to be more time-intensive than developing an F2F course. One participant felt that teaching the online course also took more work than teaching the same course F2F. Also note that the teachers in Chiasson et al. had access to assistance from instructional designers who also helped them learn technology skills. The teachers in this study mentioned extra compensation for course development time as a necessity, a finding that also appeared in Quashou (2022).

2.3.7.1 Loss of Humanware Affordances

In Tafazoli (2021b), Iranian teachers describe asking friends and colleagues for help and teaming up with them to develop online teaching skills. Tafazoli noted that 23/28 teachers in that study mentioned asking experienced CALL teachers for advice about selecting online tools, and 11 teachers described taking advantage of Instagram live sessions and YouTube videos

produced by experienced online teachers. Moghli and Shuayb (2020) also report teachers seeking support from colleagues in their own and other schools, but fewer Palestinian teachers (17%) did so as compared to teachers in Jordan (27%) and Lebanon (23%). Huang et al. (2023) reported older, experienced teachers in a Chinese HEI ELT programme as feeling anxious, stressed, and de-professionalised when first encountering ERT unprepared and being forced to turn to others for help. Reports of teacher isolation, helplessness, and vulnerability during ERT, particularly in the early days, tend to be more common than documentation of successful formation of collaborative, supportive peer communities (cf. Bacova & Turner, 2023; Moore et al.,, 2021; Shobeiry, 2024;

The documentation of teacher efforts to seek ICT support outside of typical institutional channels during their ERT experiences resonates with the educational technology humanware concept put forward by Warschauer (2002, 2006). Humanware is a term and idea that appears to have arisen in the early years of automation in manufacturing—in a research report from the MIT-Japan Science and Technology Program, Shimada (1986) uses it in reference to 'a self-generating innovative interplay between human resources and hardware technology' (p. 4) in Japanese automobile manufacturing plants. Humanware later appears as an ICT-sector buzzword referring to 'the combination of hardware and software elements that make human interaction with a device as good as possible' (Techslang, 2024, para. 2) or design features that customise a hardware or software product to the capabilities and needs of intended users (Rouse, 2016).

Humanware became broadly over-used to refer to anything from skilled labour at a Malaysian rubber plant as one element in a manufacturing technology base that also includes technoware, infoware, and hardware (Siregar et al., 2016); the expert support staff needed to administer cloud-based cyberinfrastructure and assist researchers who use it (Song et al., 2019); the cohort of trained human resources that will be involved in supporting the transfer of technology in the form of disseminating a systematic knowledge base from one division of an Indonesian arms manufacturing company to the entire corporation (Apriandi et al., 2019), and more.

Writing about teachers' adoption of technology for the purposes of technology-enhanced ELT, Warschauer (2002) describes humanware as 'a body of teachers with the knowledge, skills, and attitude for innovatively designing, adapting, and applying technology in the classroom, appropriate to local context' (p. 472). These are educators with the capability and

motivation to engage with new technologies in their personal and professional lives, imagine and experiment with ways to use these technologies in teaching, and help colleagues integrate technology into their professional practices (Warschauer, 2002). Based on a 1998 experience working with Egyptian teachers to integrate educational technology into their classrooms, Warschauer (2006) observes that access to hardware and software means little without corresponding access to and support from humanware.

Warschauer's (2002, 2006) humanware model can been seen as finding theoretic grounding in Vygotskian (1978/1980) theories of cognitive development, and specifically in concepts of the more knowledgeable other and the zone of proximal development. By referring to 'a body of teachers' who can innovate in the effort to confidently and productively integrate digital technologies into education, Warschauer (2002) appears to indicate an established professional culture of widespread technological literacy. This implies a group of individuals in possession of an expansive and replicated skills inventory, broadly available to contribute to collaborative design and innovation efforts among colleagues who are technology beginners, as well as to the ongoing development and transfer of group technical knowledge and digital literacy practices.

Tan (2020) describes a different view of ICT-oriented humanware than Warschauer (2002, 2006), identifying it as 'the [ICT] practices, attitudes, and values that are socially transmitted and negotiated' (para. 5). Discussing the idea of providing universal internet access to the citizens of Singapore, Tan echoes Warschauer in offering the opinion that digital access is more than just hardware and software, it also entails 'the know-how and know-why of humanware' (2020, para. 14). In Tan's view, access to hardware and software without good humanware in place exposes users to potential harm. In other words, humanware mediates human relationships with digital technology and the interactions with other entities, human and digital, carried out via that technology.

This is similar to a definition of humanware found in Raffaella et al. (2020). These Italian scholars of IT and digital forensics write about the use of Artificial Intelligence (AI) to support legal decisions and refer to humanware as 'the human factor that intervenes in digital investigations as well as in the relationship with technology' (Raffaella et al. 2020, p. 16). In their view, the development of such humanware is crucial to ensuring that ethical standards are adhered to and fundamental human rights protected as the use of AI becomes prevalent in the justice system. In the same theme of mediation running through Tan (2020) and Raffaella et al.,

Galindo et al. (2011) report on the integration of an open-source e-learning platform at an HEI in El Salvador. These authors propose humanware as the dynamic element of educational technology infrastructure, and the factor that establishes the relationship between humans and technology in what Galindo et al. refer to as the socialisation and democratisation of technology.

Sarirete and Costa (2009) note that humanware factors are highlighted and potentially have more importance in groups that interact and work together primarily or only in cyberspace. A number of authors contend that the ability of people to interact, socialise, collaborate, and build relationships around shared objectives strongly influences the development of cohesive online communities (Engstrom, 2005; Garrison, 2007; Garrison & Anderson, 2003; Gunawardena, 1995). In online distance learning, there is a significant association between the sense of community in an online course and perceived learning; this is the foundational principle of the community of inquiry model (Garrison, 2007; Garrison et al., 1999, 2010; see Figure 2.5). Within this model, the social presence component is crucial to successful online education experiences because it is the basis of community building (Garrison et al., 1999, 2010; Gunawardena, 1995).

Figure 2.5: *Community of Inquiry Framework*
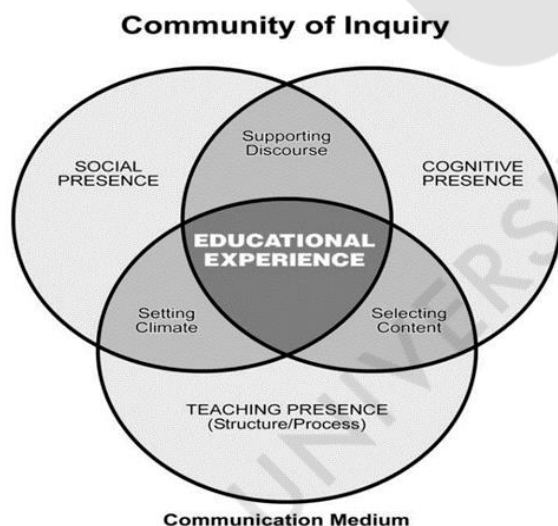
Note. Adapted from "The first decade of the community of inquiry framework: A retrospective," by D. R. Garrison, T. Anderson, and W. Archer, 2010, *The internet and higher education*, *13*(1–2), 5–9. (https://doi.org/10.1016/j.iheduc.2009.10.003).

Social presence is a synergy of the affordances of the media in use and the user's affective stance or attitude towards that media; this synergy manifests as the ability of participants in virtual or other non-F2F communities to project their personal characteristics as a real person in those spaces, be perceived as present by other community members, and

establish personal, purposeful relationships within the community (Garrison, 2007; Gunawardena, 1995; Short et al., 1976). Similarly, teaching presence includes the ability to design, facilitate, and direct social as well as cognitive processes with the objective of achieving positive learning outcomes in a computer-based environment (Anderson et al., 2001).

2.3.7.2 Expanding the Humanware Model

Following the strands of thinking inspired by these scholars led me to conceive of an extension of the humanware concept as it applies to educational technology integration. In this thesis, for the first time, I offer a description of **my own original bilateral humanware paradigm comprising two genres of humanware: *hard humanware* and *soft humanware*[6]** (Abu Elhawa, 2024—this thesis). Boundaries between the two genres may and even should be fluid and blurry, and they may be present in the form of different human resource configurations. For example, an excellent technologist who can operate and troubleshoot any hard- and software tools as needed while imparting the same skills to other learning community members may also be a skilled online community leader, activity moderator, and confidence-inspiring guide to virtual work spaces. However they may appear, I contend that at least some elements of both genres of humanware hard and soft must be present to some degree, in some configuration, for online distance education to maximally effective, beneficial, and satisfying for all participants.

In my model, hard humanware generally carries the same reference as in Warschauer's (2002, 2006) usage of the term *humanware*: human resources who possess skills in the realm of applied technology use and are capable of deploying those skills in the training and support of other technology users. Hard humanware is represented by **a person or group of people with skillsets oriented towards and useful for doing things with computers:** working proficiently with hardware, software, and all associated machine technologies, and helping others develop towards a similar level of proficiency.

In contrast, soft humanware comprises **a person or group of people with skillsets oriented towards and useful for doing things with people** who are engaging with technology. In my framework, this genre of humanware encompasses both the soft skills concept familiar from the human resources and employee relations fields (Herrity, 2023), and concepts from community of inquiry and social presence theories (Garrison & Anderson, 2003; Garrison et al.,

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[6] Note that Google searches for 'soft humanware' and 'hard humanware' currently bring up no results that include these terms.

2010; Short et al., 1976). Soft humanware specifically refers to human resources with the personal characteristics and interpersonal skills useful to guide and support others in the emotional, subjective aspects of learning to use and using technology; in the creation of meaningful bonds between people who connect and work together primarily or solely in virtual spaces; and in the building of communities of practice and other virtually-sited communities. To borrow from Warschauer (2002), soft humanware is a body of teachers (people) with the knowledge, skills, and attitude for innovatively and intuitively deploying, adapting, and leveraging soft skills in virtual learning spaces as appropriate to local context, and enculturing the same attitudes and skillsets in others. 'Offline' soft humanware is intuitively present and its elements are almost constantly operationalised in F2F spaces, but remain nearly invisible because of ubiquity and familiarity.

In findings from their research focused on pandemic ERT conditions around the world, Bozkurt et al. (2020) allude to the soft humanware paradigm by emphasising the importance of support communities and mechanisms for teachers, students, and parents who were all experiencing trauma, anxiety, and psychological pressure at the time. The large-scale collaborative study conducted by Bozkurt et al. revealed a pedagogy of care surfacing in education institutions across the world, and Bozkurt et al. called for a pedagogy of care, affection, and empathy in response to the effects the pandemic emergency had on education. Robinson et al. (2020) document increasing interest in applying principles of care theory and ethics of care, formerly primarily associated with inclusive education designs for F2F work with special needs students, to paradigms of online education design and delivery. The flow of empirical research into the role of emotions in online learning is also quickening (cf. CH'NG, 2019; Nash, 2022; Torres & Evans, 2020; Yan et al., 2022), and includes a number of special issue journal volumes (cf. Artino, 2012; Kruk et al., 2023).

My expanded bilateral humanware model provides the framework for more discerning observation of teachers' experiences during the adoption and implementation of ERT. I also assert that the presence of useful humanware of both hard and soft genres might possibly have buffered some of the negative impacts of ERT regimes that forced the use of technology on unprepared teachers. However, the social distancing requirements and lockdowns of the pandemic period had the effect of isolating many teachers away from any supportive humanware sources that may have been available. As noted above, there were cases where teachers achieved some success in engaging family members, friends, colleagues, and students for support in both

emotional technical realms during the stresses of ERT (cf. Barrot et al., 2021; Huang et al., 2023). However in many instances and individual cases teachers were forced to face the challenges of ERT largely on their own (cf. Gao & Zhang, 2020), including in Huang et al. (2023), Moghli and Shuayb (2020), and Tafazoli (2021a, b) where some teachers were able to find assistance with moving online while others had to adapt to the situation with little help or at best non-interactive online resources. Moghli and Shuayb, Huang et al., and Tafazoli (2021a, b) all report teachers being forced to self-educate while also facing the challenge of moving their courses online; it can be extrapolated that this was a common side-effect of ERT.

2.4 The Classroom Impact of ERT

The dominant effect the COVID pandemic and rapid adoption of ERT-style e-learning had on teachers was disruption that forced them away from their accustomed routines and roles. Educators were challenged and made vulnerable by being pushed into a realm of uncertainty and risk where survival demanded interrogation and rethinking of their core professional identities (Foreman-Brown et al., 2023; Shobeiry et al., 2024). This experience was common to teachers around the world, whether in primary and secondary school settings (Judd at al., 2020; Vahle et al., 2023) or at HEIs (The Association of Commonwealth Universities, 2020; Marinoni et al., 2020). Education systems in the Middle East were no exception, with schooling in every region and at every level affected (Bashitialshaaer, Alhendawi, & Lassoued, 2021; Jawabreh, 2020; Moghli & Shuayb, 2020; Shraim & Crompton, 2020).

The ERT effects pipeline ultimately ended in the classroom, where a multitude of impacts were manifested (other than mass absenteeism). For example, teacher identity shift as discussed above was an overarching effect arising from classroom practice but reaching beyond any individual class or series of classes into teachers' personal lives as well as their professional practices and relationships with their colleagues, institutions, and the education profession as a whole. The impact of ERT on student motivation was another classroom-centric phenomenon that appeared as a theme in the pandemic-era literature; assessment was a major concern at the many institutions where experience with online education was lacking; and the effect that going online had on English language teaching was extensively documented by ELT professionals. These three topics are categorised here as classroom impacts and addressed in the following sections.

2.4.1 Impact on Student Motivation

A basic definition of motivation presented in an online introductory psychology course states that 'Motivation describes the wants or needs that direct behaviour toward a goal' (Spielman et al., 2020, Chapter 9, p. 2). Hartnett (2016) also describes motivation as involving 'goals that provide the impetus for purposeful action with an intended direction' (p. 13). Hartnett considers physical and/or mental activity as essential parts of motivation that also position it as a process rather than an end result. Extending the concept of motivation to the specific realm of students and learning, a general definition of student motivation or motivation to learn is the perception that academic tasks have meaning, value, and benefit leading to an associated desire or willingness to participate in learning processes and engage in related tasks (Lumsden, 1994; Stipek, 2002). Student motivation is an important factor in all types of learning, including online e-learning, and fostering such motivation is a core principle of effective instruction (Gardner, 2001; Kim & Frick, 2011; Hartnett, 2016; Paris & Turner, 1994).

Standard definitions of motivation such as that offered by Spielman et al. (2020) delineate two broad types of motivation: intrinsic (arising from internal factors) and extrinsic (arising from external factors). These categories also appear in Hartnett's (2016) discussion of prominent perspectives that frame exploration of student motivation in online learning environments. The instructional design perspective is concerned with the creation of learning environments that elicit extrinsic motivation; and the learner characteristics or traits perspective is focused on identifying intrinsic learner characteristics that predict success. Of the two, conceptualising motivation as a learner characteristic has been the predominant method for investigating motivation (Hartnett, 2016). Strong intrinsic motivation along with autonomy, self-discipline, and self-direction are student characteristics traditionally associated with success at distance learning in particular (Bates, 2022; Moore, 1989; White, 2009; Xu & Xu, 2019).

This is not to say that extrinsic motivators do not also play roles in supporting student motivation in e-learning contexts; in most cases, motivation arises from the synergy of multiple factors (Dörnyei, 2003; Lamy, 2013; White, 2009). In two case studies of online learning conducted by Hartnett (2016), student motivation appeared as 'complex, multifaceted and situation-dependent' (p. 78). Social and contextual influences acted to either support or undermine learners' psychological needs and by extension, their motivation. Hartnett found that various motivators and types of motivation co-exist in a complex mix, with the same contextual factor(s) affecting individual students differently. Student satisfaction with online courses can

be affected by a variety of external and internal factors including levels of communication and interaction with instructors and peers, teacher feedback to student participation and work, support for students' development of social presence in the virtual environment, feelings of fun associated with the online learning experience, and degree of match between students' epistemologies of learning and their experiences with online learning (Allen et al., 2019; Lamy, 2013; O'Siochru & Norton, 2014; Sujarwanto et al., 2021; White, 2009).

The deployment of pandemic ERT highlighted external factors that can affect student motivation but are unrelated to institutions or academics. Al-Hashmi (2021) studied Omani university students who identified teaching style, number of activities and homework, lack of group work, and issues related to online assessment as academic factors that affected their motivation levels. However, the research participants blamed poor quality internet service as the primary factor impacting their motivation; home responsibilities and a distracting home study environment also acted to decrease motivation. Several other researchers in developing countries also reported decreases in student motivation caused by the same or similar types of non-academic impacts (cf. Barrot et al., 2021; Clarin & Baluyos, 2022; Kapasia et al., 2020; Meşe & Sevilen, 2021).

In summary, issues of student motivation emerged almost everywhere ERT was implemented, and appeared to be exacerbated in settings where poor connectivity, deficient technical resources, and lack of adequate off-campus study spaces were likely to be factors. This latter observation is reinforced on a large scale by a May 2020 Association of Commonwealth Universities (2020) survey of member institutions for information regarding digital connectivity, engagement with technical resources, and the pandemic's impact on teaching, learning, and research. Data from respondents in 33 countries revealed the top four challenges to online education as accessibility for students; staff training and confidence; connectivity costs; and student engagement. Among respondents reporting student engagement as a challenge, 63% were from high-income countries, and 76% were from low-income countries.

2.4.2 Impact on Assessment

Online assessment refers to the use of internet or intranet connected ICT in the assessment of student learning in the context of either fully online or hybrid style education (Conrad & Openo, 2018; Gikandi et al., 2011). In line with philosophies of online learning that propose greater student autonomy and self-direction, online instructors should deploy interactive, engaging

assessment strategies that also incorporate learner autonomy and increase it over time (Bartley, 2005). Online assessments should also be designed to account for the new skills and definitions of competence emerging in an increasingly digitalised global context (Lund & Aagaard, 2020). Two main types of assessment are generally recognized by classroom-level practitioners; drawing on Black (1998) and Pellegrino et al. (2001), they are: (a) formative assessment, a learning activity that provides teacher and student with diagnostic feedback about ongoing progress towards learning objectives; and (b) summative assessment, a summary evaluative activity that comprises an overview of previous learning and measures individual achievement of learning objectives. These two categories of assessment have similar applications in F2F and virtual classrooms, but the literature indicates that the strategic use of formative assessment is arguably more important in online learning (Bakerson et al., 2015; Conrad & Openo, 2018).

It is generally understood that online assessment of student learning presents specific challenges and offers unique affordances as compared to traditional F2F testing (Kearns, 2012). For example, expressions of concern about or issues with academic integrity in online assessment are common throughout the literature (cf. Algahtani et al., 2020; Muhammad, Shaikh, et al., 2020). In relation to this, Wise and Im (2015) describe online assessment as involving additional complexities for faculty and support staff; they give as examples the need for decentralized, asynchronous exams and specialized technology such as webcams, lock-down browsers, and screen captures to ensure integrity.

Elzainy et al. (2020) studied ERT/ERL (emergency remote learning) online assessment at a Saudi medical school where grading was adjusted to minimise subjectivity and redistribute weighting towards objective assessment strategies such as problem-based-learning projects, seminar presentations, and oral assessments. Students reported satisfaction, and grades were maintained at the same pre-pandemic levels. Including activities that closely mirror real-world tasks and actively engage students in their own learning by means of this real-life relevancy is one of a multitude of features that characterise authentic assessment (Conrad & Openo, 2018). Fontanillas et al. (2016) note that *project*-based learning, an approach very similar to *problem*-based learning, is an effective strategy for developing a culture of peer-assessment, opening the possibility of engaging students in both formative and summative assessment processes. The literature is clear that open-ended authentic, task-based items are the preferred and most effective choice for online examinations in social sciences or humanities fields, and formative

assessment was more useful and ultimately more reliable and valid with online learners than one or two high-stakes summative assessments (Bakerson et al., 2015; Conrad & Openo, 2018).

In Arab countries and cultures, the topic of assessment rouses contention and uncertainty even in the best of times. In these settings, traditional evaluation models are largely based on the ability to master rote memorisation (Akkari, 2004; Hamamra et al., 2021), and there is resistance to the adoption of new methods. As previously noted, there is a cultural bias against online education in the Arab world, and an impression that it poses more risk of fraud and cheating than traditional F2F teaching and learning.

Research on matters of academic integrity specific to Arab education settings is plentiful, and widespread cheating has been extensively documented by indigenous researchers (cf. Lassoued et al., 2020; Muhammad, Shaikh, et al., 2020; Saleh & Meccawy, 2021). In a study intended to assess receptivity to the adoption of an institution-wide e-learning programme at a Saudi Arabian health sciences university, Algahtani et al. (2020) surveyed 387 students in training for a variety of healthcare fields. Among other findings, 43.2% of respondents felt the risks of cheating and fraud would be higher with e-learning. Challenges associated with ensuring test validity, reliability, and fairness in online assessment are also commonly acknowledged (Bakerson et al., 2015; Kearns, 2012). Ensuring that online tests are fair is a persistent difficulty—a basic tenet of online assessment is that conditions are not the same for each test-taker (Bakerson, et al., 2015). Bashitialshaaer, Alhendawi, and Avery (2021) studied the use of online assessments for Palestinian students at Gaza HEIs during the pandemic and found that many students felt the tests would be unfair and invalid.

Some institutions and teachers solved challenges of academic integrity during ERT by avoiding traditional efforts to monitor and control student behaviour during exams. Cavinato et al. (2021) reported on ERT adjustments made by four chemistry instructors at U.S. HEIs; alternative assessment formats were one strategy used during online instruction. Several instructors employed open-resource assessments, making the exams available over a 12–24-hour time periods and setting completion time limits at 1.5 to 2 times longer than would be allowed for a typical F2F exam. Clear rules were defined for behaviour during exams, and students were required to sign a pledge of integrity and acknowledgment of consequences for academic dishonesty (Cavinato et al., 2021). Buckley et al. (2021) report a study on the use of uninvigilated, open-book, open-web, 24-hour time limit take-home exams at a UK HEI during pandemic lockdowns. Some students reported spending many more hours working on the take-

home exams than would be normally allotted for an in-class exam (3–4 hours). Given a 24-hour window to complete the take-home exam, 88% of respondents reported working for more than 3 hours; 26% worked for over 12 hours. In general, the students' performance was similar to or slightly better than observed on open-book exams conducted F2F.

2.4.3 Impact on ELT

As previously explained, many educators including experienced online instructors asserted early in the pandemic-driven education crisis that ERT is not online education, and the literature shows that this assertion has now evolved into accepted knowledge (Moore & Hodges, 2023). In the same vein, I contend that the ERT-style ELT offerings at the research site, like those of many other institutions represented in the literature reviewed here, were neither proper DCALL as per specialists in that branch of CALL (cf. Blake, 2016; Lamy, 2013; White, 2003, 2006, 2009) nor even effective contemporary communicative or integrative computer-assisted language learning as outlined by Warschauer (1996), Warschauer and Healey (1998), Davies (2006), Davies & Otto et al. (2013), and other experts over the past three decades.

2.4.3.1 Delineating CALL vs. DCALL

Many of the researchers, teachers, and students introduced in this literature review are ELT practitioners or EFL learners; for some unknown but very large number of them (cf. Bozkurt et al., 2020), pandemic ERT constituted an involuntary immersion in DCALL—distance computer-assisted language learning. In relation to the situation imposed on EFL teachers forced into ERT, I here consider the distinction between computer-assisted language learning—CALL—and distance CALL, or DCALL. In the *Encyclopedia of Language & Linguistics*, Davies (2006) defines CALL as 'an approach to language teaching and learning in which computer technology is used as an aid to the presentation, reinforcement, and assessment of material to be learned, usually including a substantial interactive element' (p. 460). Beatty (2010) states that 'CALL covers a broad range of activities which makes it difficult to describe it as a single idea or simple research agenda' (p. 8). This observation is the basis for Beatty's broad definition of CALL as '*any process in which a learner uses a computer and, as a result, improves his or her language*' (p. 7). Chun (2011) states that 'CALL is not a methodology; it is an emerging field that studies how technology is used as one (of many) tool(s) for language learning' (p. 663).

It is true that CALL is now a field, with such a complexity of aspects, approaches, disciplines and specialisations emergent in relation to computer-mediated language learning and teaching that some authors have argued for changing or doing away with the term CALL entirely (Levy, 2013). Acceptable for the purposes of my work here is a more recent definition offered by Rogers (2018), blogging for the Association for the Advancement of Computing in Education: 'Computer-assisted language learning (CALL) is the interactive use of technology to foster second language acquisition by providing meaningful opportunities to practice a language in environments beyond that which is available in the confines of a classroom' (para. 1). Taking 'environments' as a reference to virtual spaces, I embrace a combination of the concepts captured by Davies (2006) and Rogers (2018) as a useful definition of CALL.

CALL became prominent as a sub-field within ELT during the developmental phase that Warschauer and Healey (1998), in their widely-cited expansion of Warschauer's (1996) earlier historical outline of the field, refer to as *integrative* CALL. In Warschauer and Healey's description, from the late 1980's through the 1990s, communicative language teaching approaches employed task-, project-, and content-based methods in an effort to integrate authentic language use and four skills practice into lessons by situating learners in environments where genuine, purpose-driven communication is carried out. Most significantly, during this period when networked multimedia computers and the internet were increasingly present in our personal lives and in the roles and practices of teachers and learners in most subjects, the use of computers went from ad hoc and optional to imperative in English language teaching and learning (Torsani, 2016; Warschauer & Healey, 1998).

Writing in 2016, Torsani (2016) noted the diffusion of smart phones, apps, and online social network membership along with validation of Warschauer's (1996) early predictions of the significant implications that computer-mediated communication (CMC) held for language learning. Torsani describes the space for CALL to intervene in language learning as growing wider and wider, on course towards realisation of Bax's (2003) vision of the comprehensive integration of technology into everyday life, along with the normalisation of digital technology use in language teaching, finally causing the disappearance of CALL as a field.

Online distance computer-assisted language learning—DCALL—is a sub-field of CALL that has been outlined and established by a body of research and authorship developed since the 1990s (Lamy, 2013; White, 2006). White (2009) proposes a tentative theory of distance language learning by drawing on established theories of distance education beginning with

Holmberg (1986), Peters (1967, 1989), Garrison (1989), and Moore (1993) along with findings from a detailed five-phase longitudinal investigation of the conceptions that students develop in relation to distance language learning (White, 1999). White's (2009) *learner-context interface* theory of distance language learning emerges from the research-based observation that 'Students conceptualised distance language learning as based around the development of an interface which each learner constructs as s/he interacts with the learning context, and which informs future learning' (White, 2009, p. 7). The underlying premise for the theory is that the contribution of the context and that of the learner are integral and reciprocal constructs.

Discussing the three dimensions of the theory—*learner*, *context*, *interface*—White (2009) posits that the *learner* dimension is dynamic and comprises individual attributes, conceptions, affects, skills, and needs. It is the *context* dimension where the teacher/course designer has the potential to exert control and thereby influence learners' development and control of their learner interface (White, 2009). *Context* refers to course features including resources, assignments, assessments, and access to opportunities for interaction and learner control as well as to other sources of target language input and sites for learning. In addition to these observable external factors, White asserts that implicit course features such as the affordances and constraints perceived by learners are influential components of the evolving *interface*, an abstract concept constructed by learners that informs and mediates their language learning experience in an ongoing way (White, 2009). The role of the teacher to structure online sessions, guide, advise, and support the students is both an influential *context* component and an interactive element of the learners' interface with the context. White describes successful students as those who are able to find a fit between their own learning strategies and needs and course features including difficulty level, learning sources within the course, and teacher support.

In a 2006 article, White called for the development of a definition of DCALL that synthesises perspectives and practices to form a conceptual basis for the field (White, 2006). Lamy (2013) moves in that direction, illustrating the distinction between online distance learning, CALL, and DCALL by pointing out overlaps that exist between the three paradigms, along with differences that set DCALL apart. 'DCALL overlaps but is not co-terminous with CALL and instead has specific concerns related to distance, openness, flexibility and support for learners' (Lamy, 2013, p. 155). Issues that should be emphasised in DCALL include prioritizing multi-modality in terms of distance learning channels, possessing abundant

knowledge about the learners, being flexibly responsive and supportive to the wide variety of distance-learning audiences, understanding language learner motivation, and attending to needs and possibilities for intercultural development in remote learning settings (Lamy, 2013).

Motivation is critical to success in second language learning (Dörnyei, 2003; Zareian & Jodaei, 2015) and has long been a topic of research in the field (Dörnyei & Schmidt, 2001; Gardner, 2001; Gardner & Smythe, 1975). In a review of research and theory on second language (L2) learning motivation, Dörnyei (2003) discusses a strand of second-language-acquisition research emerging in the 1990s that shifted focus from broader, community-level sociocultural dimensions of L2 learning motivation as per Gardner (1985) towards a situated conception of learner motivation suitable to framing analysis of motivation in classroom L2 learning environments. The underlying assumption was that the contextual surroundings of action (i.e., L2 learning efforts), have a stronger motivational influence than previously supposed (Dörnyei, 2003). In a correlation with White's (1999, 2009) research and following theory development, contextual elements such as classroom environment, teacher characteristics, course content, and learner group characteristics are among the factors that impact what Gardner (2001) refers to as *attitudes towards the learning situation*. In Gardner's (2001) integrative motivation model, *attitudes* are a variable that interacts with the correlated variable *integrativeness*—genuine interest in learning another language in order to come closer to the group that speaks that language. The interaction of these two variables with each other influences motivation to learn a language (Gardner, 2001).

Dörnyei (2003) explains that explorations of learner motivation as a situated phenomenon expressed via specific classroom behaviours and learning processes exposed motivation as an unstable construct that is dynamic and subject to temporal variation. Dörnyei observes that learners demonstrate fluctuating levels of commitment within a single lesson and even greater variation over longer time periods. Investigating Dörnyei's contention, Pawlak (2012) evaluated Polish senior high school EFL students in terms of the factors underlying their motivated behaviours, changes in those factors and behaviours over time, and changes in motivation levels over the course of one lesson and a sequence of lessons. Findings from four class meetings spread over a period of 4 weeks revealed that learner motivation appeared to fluctuate within the span of a single class period and even over periods as short as 10 minutes. However, the subjective nature of data collected from students and teachers made precise interpretations and cause determinations difficult (Pawlak, 2012).

White's (2009) theory of distance language learning positions motivation as a learner factor that affects the way a learner interprets, relates, and responds to context and so influences the kind of interface the construct with the context. Motivation research as discussed above supports the understanding that learner motivation in practice may be fluid, reactive, and condition-sensitive. Motivation will be affected in DCALL implementations by the technologies in use, the overall design of virtual learning environments, teaching presence, curriculum, pedagogy, and learning activity design (Allen et al., 2019; Hartnett, 2016; Lamy, 2013).

Detailing the specific concerns and elements that differentiate DCALL from CALL, Lamy (2013) discusses an integrated model that incorporates features of distance-learning and CALL along with additional aspects necessary to create DCALL contexts that offer maximal support for learner motivation and engagement:

(1) Learning and technological designs must ensure that environmental features of the virtual learning environment (VLE) and pedagogical resources mesh in a way that allows isolated learners to choose and use language learning tools and strategies according to their preference without needing help.

(2) Technology and pedagogy should work together to maximize learning opportunities for the distance learner by building in flexibility that accounts for various study circumstances, schedules, and constraints.

(3) Scaffolding systems should be available to account for and support learners of various study backgrounds and language proficiency levels.

(4) Learning designs need to account for various educational cultures, for example, differences in assignment and work guideline presentation and output expectations, approaches to assessment, and communication strategies and preferences.

5) The design and presentation of materials should act to maintain learner motivation, encourage learner reflection on and self-direction of the learning process, and minimize anxiety.

Community-building and leveraging opportunities for cross-cultural exchange are also key DCALL strategies aimed to enhance learner experiences with online language study while lending practical support to L2 acquisition processes (Lamy, 2013). Finally, Lamy (2013) explains that the penalty for faulty design in DCALL can be severe: 'remote, isolated learners whose learning is impeded or halted by design issues cannot obtain immediate help, nor can designers intervene swiftly to recast pedagogical orientations that have been explicitly described for the learners in the self-study materials already released' (p. 149).

2.4.3.2 Experiencing Emergency DCALL

It is no exaggeration to say that the impacts of emergency DCALL were as diverse as the population of EFL teachers and learners around the world (cf. Bozkurt et al., 2020; Cambridge University Press, 2020) EFL practitioners and learners were naturally subject to all the chaos, confusion, and constraints that affected education, educators, and students at large. The ELT field also faced an added element of disruption and uncertainty arising from the fact that F2F communicative interaction is traditionally held to be a non-negotiable essential to effective language teaching and learning. This is evidenced in the many articles covered in this literature review that concern ELT settings, practitioners, and students. In closing this literature review, this section highlights a few notable studies of EFL teachers and learners set in various countries and institutions around the world.

Conducting a general overview, Cambridge University Press (2020) published an online questionnaire with the objective of gathering data about pandemic impact on EAP teachers and students. Available between November 5–16, 2020, the survey drew responses from over 1,000 teachers in 99 countries. One prominent revelation was teachers' general lack of experience at working online: only 10% of teachers spent 60% or more of their teaching time online before the onset of emergency DCALL; 53% of respondents reported spending no time teaching online prior to February 2020. At the time of the survey, 55% of responding teachers were teaching 100% online. Technical problems and low student motivation were the most prominent issues encountered with online lessons, and 51% of teachers viewed their students' progress as slower in the online classes. This represented a serious issue because 82% of teachers reported that their students would be required to demonstrate a specified level of English proficiency at the end of their course.

In an example of successful adaptation to ERT in a fully-resourced setting, six teachers who were leading F2F EAP courses at four different universities across China engaged in a descriptive case study of their experiences with moving from F2F to online instruction (Davies & Davies et al., 2020). As all of the teachers were already working in hybrid mode, they and their students had relatively smooth and successful transitions to ERT. The biggest challenge reported was achieving high levels of communicative student-centred interactivity in some courses that were delivered asynchronously. This difficulty was overcome by using

asynchronous online discussion forums supported by clear instructions, frequent instructor emails, and personalized videos.

Gao and Zhang (2020) studied three Chinese EFL teachers who abruptly shifted to online teaching during the pandemic emergency. Thematic analysis revealed three emergent themes related to the participants' acquisition of digital literacy levels necessary to cope with the situation: (a) clearly understanding student needs then identifying and adopting tools to assist in meeting those needs, (b) gradually acquiring digital literacy via autonomous learning and practice at teaching online, and (c) adapting and integrating techniques and principles from face-to-face classroom teaching into online pedagogy. Teacher role change to 'resource integrator and the supervisor for students' autonomous learning in online teaching mode' was also a major theme in the data (Gao & Zhang, 2020, p. 8).

Researchers at Saudi Arabian HEIs have been the source of many studies of ERT in tertiary EFL programme settings. Al-Samiri (2021) reviewed and synthesised research focused on the use of ERT strategies for EFL teaching in Saudi Arabian tertiary institutions and found that pre-existing issues in ELT programmes were exacerbated by going online during the emergency. Lack of student motivation has long been one of the most commonly-discussed problems in the Saudi ELT sector, and isolation, poor internet service, and distractions at home emerged as factors in widely-perceived decreases in student motivation during the pandemic. Due to cultural norms around privacy that limited web cam use, lack of visual communicative input appeared as a specific language learning challenge. Balancing positive factors included improvement of reading, vocabulary, and research skills as students constantly accessed the internet and online language-learning resources presented in English (Al-Samiri, 2021).

Al-Nofaie (2020) explored Saudi university students' perceptions of Blackboard LMS use in courses for their undergraduate English language major programme. Results indicated that students valued the in-class physical interaction that online study and listening to lectures posted on the LMS could not provide. However, shy learners did appreciate the use of online discussion forums and felt they could express themselves more freely. This was a common finding among pandemic-era studies of EFL teachers and students in the Middle East (cf. Hamamra et al., 2021) and beyond. Immediately after the initiation of ERT, Hakim (2020) surveyed 50 teachers working in the ELT programme at a Saudi university; the teachers mentioned that working in virtual spaces helped shy students build confidence in using the target language to interact with their classmates and teachers. Hakim also found that the majority

(84%) perceived the use of online teaching methods as motivating their students to get more involved in learning activities.

With so many EFL teachers relying on videoconferencing platforms to support their ERT DCALL practices (Cambridge University Press, 2020), it is logical that breakout rooms would also be in wide use because F2F-style verbal communicative interactions are generally viewed as an indispensable aspect of language learning. In many cases, colleagues, managers, and professional development providers advised teachers to use these applications during their pandemic ERT implementations (McGrath & Wolstencroft, 2021). Most traditional LMS systems (Blackboard Collaborate, Canvas, Moodle) now position synchronous meeting spaces with breakout room functions as a core affordance, and increasingly refined versions of education-specific videoconferencing applications are appearing in the new genre of *social learning platforms* (cf. EducateMe, Engageli, Teachfloor).

Examples of pandemic-era breakout room use in ELT include Lee, A. R. (2021) phenomenological study of Korean university students' degree of satisfaction with Zoom breakout rooms as used to deliver EFL classes during ERT. The students were generally satisfied with the use of Zoom, and they considered the support that breakout rooms offered for authentic communicative interaction to be important for EFL classes in particular. Suggestions for improvement included ensuring that small group members were all at similar L2 skill levels and assigning groups leaders who would oversee equal participation by all group members. Savvidou and Alexander (2022) studied the use of breakout rooms during synchronous online EFL classes at a university in Cyprus. The participants acknowledged the potential benefits of the rooms in terms of interactivity with peers and engagement in the lesson, but also experienced social anxiety, boredom, lack of motivation, and concerns about privacy. The students feared that task work might be distributed unfairly when groups were isolated in the rooms with no instructor present. This appears to support White's (2009) theory of DCALL that positions teacher provision of guidance and structure as an important element of context.

Students in an ESP-Accounting course at a Malaysian university reported that prominent benefits of carrying out group work in Zoom breakout rooms included having many opportunities to speak English, get L2 models and examples from teachers and friends, talk about their ideas, discuss teacher's questions with their friends, and practice oral presentation skills (Hartono et al., 2023). Improvement in confidence to speak in English and increased participation in learning activities were effects associated with the use of breakout rooms for

group work aimed at L2 speaking practice. Improved student participation in main room activities was also observed. Hartono et al. (2023) concluded that student self-efficacy had increased in regard to speaking English and participating in active learning.

Oraif and Elyas (2021) applied the Technology Acceptance Model to frame a study of the use of the breakout room feature of Blackboard LMS by students (N=54) in the Arabic/English translation programme at a Saudi HEI. Using perceived usefulness and perceived ease of use as measures, the results indicated that students perceived the rooms as easy to use, flexible in supporting interaction with classmates, and efficient for documenting completed assignments and transferring them to the teacher. Breakout rooms were seen to be useful as an aid to finishing work quickly and increasing productivity. Yeung et al. (2023) found that Chinese EFL learners at a Hong Kong HEI engaged in more conversations in Zoom breakout rooms than in the F2F classroom, but they also increased the use of their native language. Students were observed to be more willing to answer questions and contribute to discussions in the smaller breakout groups. Researchers speculated that student concerns with losing face for mistakes or poor performance were relieved to some degree in the more relaxed space of the breakout rooms.

Badereddeen (2023) used a Zoom breakout discussion group format to focus on English grammar improvement in a study involving 30 freshman English majors at a Palestinian university. Results from a quasi-experimental approach based on pre- and post-testing revealed that spending time in structured discussion and collaborative work on three types of targeted grammar exercises in the breakout room groups correlated with a statistically significant post-test mean score improvement. In alignment with recommendations of other successful breakout room users (cf. Cavinato et al., 2020; Lee, A. R., 2021; Savvidou & Alexander, 2022; Wilkins et al., 2023), Badereddeen's work supports the value of purposeful group formation and highly-structured tasking including written instructions visible to all group members.

2.5 Summary

As this literature review has revealed, researchers investigating the impact of the emergency shift to online learning on education systems around the world have pointed out a wide variety of effects arising from the adoption of ERT. There is also accumulating evidence of an over-arching dichotomy. On the one hand, the use of online learning and the digitalisation of education advanced in both developed countries and in locales like Palestine where such

advancement had been lagging. In many parts of the MENA region, the advance was accompanied by long-resisted innovation in teaching methods and the embrace of new educational models (Karsh, 2021; Shobeiry, 2024; Shraim & Crompton, 2020). On the other hand, challenges and obstacles to online education were highlighted, and inequities in access revealed (cf. Bashitialshaaer, Alhendawi, & Avery, 2021; Carillo & Flores, 2020; Moghli & Shuayb, 2020). 'In a nutshell, it [e-learning] is both a blessing and a bane to Higher Education in the MENA Region during COVID 19' (Karsh, 2021; p. 94). Beyond MENA, on a global basis, there is a large body of evidence that the broader uptake of technology-enhanced teaching and learning that occurred has been maintained in the post-pandemic period (Association of Commonwealth Universities, 2020; Thorne, 2020; UNESCO-IESALC, 2022).

It is simply common sense to recognise that a sudden, literally overnight transition to fully-online teaching would in the majority of cases represent a challenge to teachers. As documented in this review, inexperience and lack of preparation were obvious factors, but many very experienced online teachers also found their practices disrupted by the move from proper online teaching into ERT (Hodges et al., 2020; Milman, 2020). Anything from epistemic mismatch (Lund & Aagaard, 2020; O'Siochru & Norton, 2014) and unfamiliarity with strategies for projecting teaching and social presence in the online environment (Carrillo & Flores, 2020), to financial limitations (Tafazoli, 2021a) or gender-based restrictions on technology use and internet access (Bozkurt at al. 2020; Shanahan & Bahia, 2023) influenced teachers' adaptation to and success in their local ERT programme. There are millions of untold stories from this global event, and the range of teacher challenge (and success stories) associated with the transition to ERT is very likely as broad and diverse as the scale and effects of the crisis itself (Bozkurt et al., 2020).

Foreman-Brown et al. (2023) describe uncertainty as accumulating from many sources and causing people to experience vulnerability, perceived risk, and fear of failure. Discussing the presence and effects of teacher uncertainty during the transition online and ongoing implementation of ERT, Foreman-Brown et al. state that 'Uncertainty increased when ERT necessitated educators to teach in unfamiliar ways often without the knowledge, skills and confidence for online teaching and learning' (2023, p. 4). Other examples of sources of uncertainty included teachers' lack of confidence in their ability to teach online (Hartshorn & McMurry, 2020), lack of knowledge about institutional plans to implement ongoing social distancing and ERT programs (Todd, 2020), and concerns about future employment status,

particularly for part-time and other precariously-employed teachers such as graduate students (Day et al., 2021). In Palestine and other developing countries, teachers were uncertain about their students' ability to access the electrical power, internet connectivity, digital devices, and distraction-free home study spaces needed to participate in online e-learning (Barrot et al., 2021; Bashitialshaaer, Alhendawi, & Avery, 2021; Clarin & Baluyos, 2022; Nambiar, 2020; Qashou, 2022).

Uncertainty also emerged around the effectiveness of ERT-style education—there are questions as to whether it supported positive learning outcomes and some evidence that it did not (Moore et al., 2021; Wladis et al., 2023). With the objective of evaluating the effectiveness of EdTech in general as a substitute for traditional schooling, Fairlie and Loyalka (2020) conducted two large-scale (N=~10,000) experiments with randomized samples from primary school student populations in China and Russia. In China, students aged 9–13 used technology-mediated or paper and pencil math workbook exercises for after school study. With identical content, and study time held equal, the two approaches produced the same effect on standardised test scores and class grades. In Russia, the researchers worked with students aged 9–11 and provided three levels of technology use— none, about 45 minutes per week, and 90 minutes per week. The technology was an effective substitute for traditional study only to a limited extent. Doubling the technology use time did not double scores on standardised tests, and the students' motivation and engagement with the material decreased as technology use time increased. Fairlie and Loyalka (2020) suggest caution in considering wholesale substitution of technology-mediated learning for traditional study methods.

Yet despite the uncertainty, questions, and general trauma of the entire ERT experience, even while the pandemic was still generating chaos in education across the world, there were glimpses of a contrasting view emerging from a body of literature that mainly conveyed reports of the confusion, disfunction, and frank misery experienced by many educators and learners. Shobeiry (2024) and Foreman-Brown et al. (2023) present two of the best summaries of the phenomenon: a paradigm shift that has taken place in the roles and identities of teachers, students, administrators, institutions, and education itself. Teachers around the world endured two years of disruption and uncertainty, dealt with abrupt, stressful change to their practices and professions, risked contracting COVID, faced the likelihood of being overworked when colleagues fell ill, and suffered job loss when schools closed and students went home (UNESCO-IESALC, 2020, 2022). However, in time their struggles, adaptations, and

achievements during the ERT crisis may be recognised as at once a part and a driver of what is appearing to be the beginning of real change in the global education system.

2.6 Conclusion

The literature review for this study was generally successful in providing me with context and guidance for addressing the research questions and achieving the objectives of this study. I was able to gather detailed background information regarding essential concepts, principles, and practicalities that underly the adoption and implementation of online distance education, and obstacles and challenges to such implementation, in education systems around the world. The altered sets of concepts, principals, and practicalities that emerged along with the imposition of ERT were described throughout the literature, and this helped to expand my grasp of the pandemic emergency's effect on educations systems, teachers, and students beyond my own isolated viewpoint. UNESCO reports and data from various other government sources as well as industry documents from organisations like the International Telecommunications Union along with reporting from data collectors like Kemp (2022, 2023, 2024a) were invaluable sources for comprehending the scale of the emergency and its effects as placed against the global background of expanding network access, increasing technology adoption, and unfortunately apparently faltering development in digital literacy levels (Hinostroza, 2018; ITU 2023, 2024).

Examples of the challenges and opportunities specific to ERT-style online e-learning are ubiquitous throughout the literature, as are expert impressions of and teacher reactions to the adoption and use of e-learning as a pedagogical tool under the conditions of ERT, supporting my preparations to address Research Question 1: How do the WBU English language teachers view the adoption and use of e-learning as a pedagogical tool under the conditions of ERT? Examples of teacher viewpoints and language teacher viewpoints were so plentiful as to nearly dominate the literature, and I was required to exercise caution to avoid developing any biases or tendency to generalise from conditions in other situations to those at the research site.

I used work from researchers like Mikki and Jondi (2010), Kayed (2013), Shraim (2012, 2018), Hinostroza (2018), Affouneh et al. (2021), Bashitialshaaer, Alhendawi, and Avery (2021); Moghli and Shuayb (2020); Al-Maiah et al. (2020) and others to support the construction of a comprehensive view of the state of digitally-mediated teaching and learning in my region during pre-pandemic times and into the transition to ERT and its effects on teachers' professional practices. Work from many other researchers around the world (e.g. Barrot et al.,

2021; Clarin & Baluyos, 2022; Krajka, 2021; Nambiar, 2020; Huang et al., 2023; many others) helped me expand my understanding of teacher experiences in places far beyond the MENA region. The global-scale work Bozkurt et al. (2020) completed was particularly impressive and useful in this regard. In sum, I was able to build a rich background in preparation for the search for answers to RQ1, and Research Question 2 regarding the impact of the rapid transition from traditional face-to-face teaching to the use of e-learning methodologies on the professional practices of teachers in ELT and many other fields.

The literature offered a large volume of documentation regarding the experience of ERT and its effects on teachers' perceptions and beliefs regarding online distance education, and the relationships between these matters and ELT in specific as per Research Question 3 (cf. Ali & Abd Algane, 2020; Almahasees et al., 2020; Hartshorn & McMurry, 2020; Hodges et al., 2020; Obaid et al., 2020). The studies by Bashitialshaaer, Alhendawi, and Lassoued (2021) and Bashitialshaaer, Alhendawi, and Avery, (2021) were extensive and detailed in their focus on the perceptions of and reactions to ERT by HEI professors and students in Palestine and surrounding MENA countries. These researchers' research aims and objectives nearly mirrored my own— to discover obstacles and challenges faced by teachers, document their perceptions around these issues, and capture some teacher impressions of the potential online distance education might offer in the Palestinian context going forward. I found myself returning to this work many times. Huang et al. (2023) and Bacova and Turner (2023) made particularly captivating observations of change in teacher beliefs concerning the use of e-learning, and it was gratifying to note that reports like there regarding changes of a positive nature were appeared throughout the literature.

Older and seminal work from researchers like Bandura (1982, 1997), Davis (1980, 1987), Wiske et al. (1988), Garrison and Anderson (2003), Wozney et al. (2006), Hanson (2009), Warschauer (1996, 2002, 2006) and others was invaluable. This literature provided me with a foundation for my considerations of aspects of teachers' adoption and use of e-learning as a pedagogical tool under the conditions of ERT. At the same time, I found the recent ERT-focused work by Hamamra et al. (2021) inspiring, and the reporting of Turnbull et al. (2021) eminently practical when, as per RQ 4, using the pandemic ERT experience as a lens to visualise possibilities around the adoption and use of digitally-mediated teaching methodologies as pedagogical and professional-development tools at WBU and other Palestinian HEIs going forward.

In this future-facing regard, Lund and Aagaard (2020) described the digitalised future of education along with adaptations and changes that would be required on the part of teacher educators and teachers. Bacova and Turner (2023), Foreman-Brown et al. (2023), Huang et al. (2023), and Shobeiry (2024) were among those who gave interesting and informative accounts of adaptations including seemingly permanent changes in teacher identity and teachers' views of their roles as professionals. Lund and Aagaard were possibly the most thought-provoking authors I read in relation to my Research Question 5 regarding moving forward from ERT into the adoption of digitally-mediated learning in the WBU English language teaching programme, across the institution, and ideally across Palestine and the region.

My literature review process was more than three years in length and spanned the rapid growth of a large body of literature in what is essentially a brand-new genre. In the course of this work, I found several clear gaps in both the extant body of literature around digitalisation of education, e-learning programme development, and DCALL, as well as in the ERT literature. In-depth studies of teachers involved in e-learning implementations at developing country HEIs are rare in general, so the present study situated in a developing country context helps fill out that sparse area in the literature. Regarding the ERT experience, although some dissertation- and thesis-level research has now appeared (cf. Landry, 2022), I was unable to locate any study that extended to cover the first 16 months of the pandemic school closures at an HEI or any other education institution. There is also no other study that offers such longitudinally extensive and voluminously detailed reporting in the authentic voices of teacher participants who faced the challenges of ERT; in this case, carried out in a holistic context that is daunting and disruptive to educators at the best of times.

CHAPTER 3: PHILOSOPHY, METHODLOGY and METHODS

3.0 Introduction

This chapter provides a description of the philosophy and methodology that guided the research approach used in this study, and also details the specific methods employed to carry out the investigation aimed at addressing the research problem identified in Chapter 1: the need to gather and analyse data on WBU Department of Languages ELT faculty members' beliefs, perceptions, and understandings regarding the implementation of online e-learning during the University's COVID-19 pandemic emergency remote teaching programme. The chapter begins with a statement of researcher philosophical positioning, then describes the methodological framework of the study. Details of the research procedure follow, including sampling, instrumentation, data collection, and data analysis. In the final sections of the chapter, I address the matters of research validity and ethical considerations, and close with a summary of the methodology and its specific relevance in relation to answering the research questions that framed this study.

3.1 Researcher Philosophical Positioning

The use of theoretical frameworks is a common feature of qualitative research. However, grounded theory studies are an exception; rather than the researcher choosing an existing theory and using data to test it as in a positivist research paradigm, the objective of the grounded theory method (GTM) is to construct theory from data (Corbin & Strauss, 2015; Glaser & Strauss, 1967). As explained in Chapter 2, instead of adopting a theoretical framework for the present study, I constructed a conceptual lens to support informed observation of phenomenon and analysis of data. During that process, I engaged in reflexive analysis of my epistemological positioning as an education researcher in order to clarify the rationale and fit for my choice of research methodology. Researcher reflexivity along with formulation of a statement of philosophical positioning help guard against bias in qualitative research and add credibility, originality, and authenticity to the study (Braun & Clarke, 2012; Denzin & Lincoln, 2018; Lincoln & Guba, 1985).

I adopt a general social constructivist philosophical stance as my epistemology for research, teaching, and learning. This positioning is based on a paradigm that has been a dominant presence in contemporary education theory, and in that context is generally associated with the work of cognitive psychologists Jean Piaget (1936, 1977) and Lev Vygotsky (1978, 1980). Aside from the current ubiquity of constructivism as the overarching philosophy of

contemporary models of post-positivist education, as an ELT professional, I am inevitably immersed in constructivist principles of teaching and learning.

Constructivism became embedded in modern language teaching methodology via the near-universal adoption of the principles of Communicative Language Teaching (CLT), a philosophy and methodology of language teaching and learning that first appeared in the 1970s and has since had a major influence on second language teaching (Richards, 2006; Spada, 2007). Communicative Language Teaching emphasises language practice and acquisition by means of communicative interactions that take place during engagement in collaborative work on meaningful tasks and problems (Warschauer & Healy, 1998). Socio-constructivism is also a foundational epistemological model for e-learning (Fallery & Rodhain, 2011), another of my professional interests, and underlies the predominant paradigms of effective online education: the community of inquiry model and its evolutionary successors (Garrison et al., 2010; Gunawardena & Zittle, 1997).

Finally, I argue that social constructivism is a particularly appropriate fit for the specific situational context in which I carried out a qualitative exploration of the experiences of my colleagues, the five WBU EFL teachers who participated in this research. The advent of pandemic ERT forced us all into an ongoing immersion in collaborative work situated within and shaped by a unique social settingand aimed at the construction of a new reality of teaching and learning based on an emergent body of largely ad hoc knowledge. As Foreman-Brown (2023), Shobeiry (2024), Zhang and Hwang (2023), and a number of others have since pointed out, as educators, we were all engaged in the emergency collaborative construction of a new teaching and learning paradigm intended to replace the long-standing, deeply-embedded teacher-centred behaviourist model that was suddenly swept aside by COVID-19.

3.2 Research Methodology and Design

The overall methodological design for this research project incorporated two component elements drawn from the qualitative research genre and here conceived as comprising a somewhat hierarchical structure in practical operation. Significant overlap and blurring between the two primary methodologies, case study research and grounded theory method, creates a synergistic whole that provides a stronger theoretic and methodological backbone for the research design than a single-methodology framework would offer. The component elements of my research methodology are identified and described in this section.

3.2.1 Case Study Research

I selected qualitative case study research (Merriam, 2009; Stake, 2005, 2006; Yin, 2018) as the methodology to frame and guide this research project. Yin (2018) proposes case study research as useful for developing theory from data via analytic processes rather than statistical generalisation. As per Yin, this study represented a Type 2 single-case embedded design, with the WBU online ERT programme being the single case and the teachers' experience being the embedded unit of analysis (2018, p. 84, Figure 2.4).

Blatter (2008) points out the lack of consensus regarding the basic characteristics of case studies due to the use of the term in many practical contexts beyond social science research. Yin (2018) notes that the identification of case study as a specific research method is blurred by the shifting definition of case studies according to their topics or focus, and the common use of case studies in popular literature and media. Although case studies frequently require adherence to specialised procedures and may have other aspects that set them apart from the qualitative paradigm (Yin, 2018), qualitative research handbooks by experts in the field (Creswell & Poth, 2018; Denzin & Lincoln, 2018; Merriam, 2009) position case study among the five major qualitative research paradigms.

There is general agreement that case study methodology is characterised by research focusing on some bounded, limited phenomenon (Merriam, 2009; Yin, 2018). Blatter (2008) describes case study as 'a research approach in which one or a few instances of a phenomenon are studied in depth' (p. 68). In that sense, the object of the present study neatly fit the definition of 'case'—the ERT programme at The University was a contemporary phenomenon (Yin, 2018) occurring in a bounded context (Miles & Huberman, 1994). Hancock & Algozzine (2016) also highlight intensive analysis and description of a bounded unit or system as being core features of case study methodology. The present study comprised an observation and analysis of a singular event that represented a unique occurrence framed by temporal bounds in the form of a clearly-defined start point and a relatively well-defined end point, in addition to geographic (Palestine) and notional (an HEI affected by pandemic school closure) boundaries.

Case study methodology allows for the use of various data sources, such as documents, interviews, and observations, to provide a comprehensive, rich description of the case or cases being studied (Cohen et al., 2013; Yin, 2018). Voss et al. (2002) note that collecting this type of detailed data aids the researcher in understanding the participants' unique perspectives and

exploring the phenomenon of interest (engagement in online ERT) as they experienced it. Case study methods include iterative cycles of data collection, analysis, and analytic narrative report writing (Stake, 2006; Yin, 2018). These features support the overall research objective of capturing a holistic, real-world perspective of the phenomenon under study: the adoption of ERT-style e-learning practices for ELT.

Case studies revolve around what Stake (2006) refers to as 'issues' rather than around superficial information questions. Deeper questions regarding basic values and activities represent issues (Stake, 2006). Teacher beliefs and perceptions about a phenomenon, changes in those beliefs and perceptions, and the relationship between these factors and teacher epistemologies are issues. The need for transformation in an education system is an issue. 'Case study issues reflect complex, situated, problematic relationships' (Stake, 2006, p. 10). There is no better description of the relationship between emergency online e-learning and education systems, schools, teachers, and students.

3.2.2 Grounded Theory Methodology

Grounded theory method is a qualitative research methodology developed by Glaser and Strauss (1967) based on their contention that the discovery of new theory from systematically obtained and analysed social research data is just as important as the traditional positivist concern with the testing of pre-selected existing theory via the use of gathered data or evidence. Glaser and Strauss called this type of theory that could be inductively discovered emerging from data *grounded theory*, and in the decades since they originally outlined the methodology in their 1967 book *The Discovery of Grounded Theory: Strategies for Qualitative Research*, GTM has been developed further by Anselm Strauss (Corbin & Strauss, 2015; Strauss & Corbin, 1998) and expanded by many other researchers into a broad, research genre (cf. Bryant, 2019; Inaba & Kakai, 2019). The disrupted, uncertain conditions that predominated during the research period of this study called for a methodology characterised by flexibility and robust applicability. 'Grounded theory methods offer a set of general principles, guidelines, strategies, and heuristic devices rather than formulaic prescriptions' (Charmaz, 2014, p. 37); this characteristic imbues GTM with flexibility, tolerance of ambiguity, and adaptability. The open, varying, and multifaceted nature of the modern GTM paradigm as described by Inaba and Kakai (2019) corresponds with the blurred, shifting multipurpose identity of case study as a specific research method (Yin, 2018).

Like case study research, GTM is largely data agnostic and can be used with almost any type of data (Bryant, 2019; Corbin & Strauss, 2015). Interviews and observations are the most commonly-used data in general, and the preferred data are unstructured interviews and observations. My primary data strand comprised semi-structured interviews with five teacher participants. Giving participants opportunities to discuss what is important to them and go into depth on topics if they desire is an important GTM strategy (Corbin & Strauss, 2015), so the researcher is encouraged to allow an interview to move in any direction the participants care to go. This fit with my vision of data collection and the type of data I hoped to collect. As the research questions posed to guide this study indicate, I was working to develop substantive theory for the substantive, empirical area of inquiry represented by the implementation of online ERT at the research site. My objective was a theory that would (a) enable both prediction and explanation of behaviour; (b) be easily understandable to my audience of Palestinian educators, and (c) exhibit fit, which means 'The theory must be able to explain the phenomena, and not be forced on to the phenomena as an explanation' (Urquhart, 2019, p. 90). These are all characteristics of GTM substantive theory (Bryant, 2019; Urquhart, 2019).

My operational approach to solving the research problem included a number of the specific research methods that Bryant (2019) views as 'the "essences" of GTM' (p. xxv). These include:

1. Pragmatism, in an overlap with case study research, this is the use of multiple research methods to achieve a better understanding of the research problem with the objective of generating findings that have immediate practical application.

2. Using the literature first to establish an initial basis for the research, then in theoretical coding—the ongoing reference to and use of relevant literature as an additional and critical form of data to frame both interim and later analysis.

3. The use of purposive/convenience sampling.

4. Iterative coding accompanied by concurrent interim analysis, including reflexive and analytic writing (memoing); Yin (2018) comments that GTM memo writing resembles the compiling of written narrative evidence, which is a case study research procedure.

5. The principle of theoretical saturation, or the point at which coding begins producing repetitive rather than new findings.

6. The development of substantive theory for the substantive, empirical area of inquiry represented by a particular research site, leading to the construction of formal theory for

a more generalised formal or conceptual area of sociological inquiry. Urquhart (2019, p. 103) states that 'The starting point for [GTM] theory building is a bounded context, where seed concepts are generated.' This aligns with general agreement on case study methodology as featuring an initial research focus on some bounded, limited phenomenon (Merriam, 2009; Yin, 2018).

Grounded theory method was a holistic fit for this research project as a situated, contextualised case. Charmaz (2014) developed a constructivist approach to GTM that moved away from the original strictly interpretivist epistemological framing and connected constructivist epistemology to GTM (Inaba & Kakai, 2019); this resonates with my own philosophical positioning. The essential core research methods of GTM as identified by Bryant (2019) aligned with the case study research strategies in Yin (2018) and Stake (2006), and were usable and useful for the work of answering my research questions and achieving the research objectives. Case study and GTM methodologies were complementary to each other. The research site and phenomenon fit well into a case study frame; GTM offered a structured, detailed epistemological paradigm for developing theory about the case.

3.3 Sampling and Research Participants

To select a sample for this study, I used a non-probability sampling strategy primarily based on the logic of purposive criterion sampling (as per Palys, 2008) to select participants who met preestablished criteria. Purposive sampling is commonly implemented in qualitative research and is described throughout the qualitative research methods literature (cf. Miles & Huberman, 1994; Palys, 2008; Ritchie et al., 2014; Saumure & Given, 2008b; Stake, 2006, others). Palys (2008) remarks that 'Purposive sampling is virtually synonymous with qualitative research' (p. 697).

Purposive sampling involves active evaluation and decision-making by the researcher in the selection of participants who meet preestablished criteria, usually aligned with the research objectives (Miles & Huberman, 1994; Palys, 2008; Saumure & Given, 2008b). According to Bernard (2002), the researcher makes a deliberate choice of participants based on the qualities and knowledge they possess in relation to the topic of interest or the research question, with no need for underlying theories or a set number of participants. For the present study, qualified participants were those who demonstrated four preferred characteristics. All participants were required to be (a) qualified, experienced higher education EFL teachers, (b) working in the WBU

Department of languages and teaching online courses during the pandemic ERT programme, (c) willing to commit approximately 5 hours of time total to a series of 5–6 interviews carried out over a period of 12 months or more, and (d) willing to participate on a strictly voluntary, free-will basis.

Non-probability sampling strategies including purposive and convenience sampling can offer the qualitative researcher benefits including quicker sample selection and recruitment, cost savings, and precisely-targeted data and results (Ritchie et al., 2014; Saumure & Given, 2008a, 2008b). Purposive sampling in particular improves the rigour and trustworthiness of a study by creating a match between the sample and the aims and objectives of the research (Campbell et al., 2020). This matching is accomplished by identifying and selecting individuals who are not only available and willing to participate, but are also well-informed in regard to the phenomenon of interest, able to reflect their experiences with and opinions on the research topic, and capable of communicating their ideas and impressions in an articulate and expressive manner (Creswell & Plano-Clark, 2011; Spradley, 1979). The overarching objective of purposive sampling is to 'intentionally sample a group of people that can best inform the researcher about the research problem under examination' (Creswell, 2013, p. 147).

A primary limitation of purposive sampling is that data generated is often not representative of the larger population, and findings are not generalisable (Saumure & Given, 2008b). This is because the sample is chosen from a specific population of individuals circumscribed by possession of the preestablished criteria and not necessarily representative of the entire research population (Patton, 2015; Saumure & Given, 2008b). The other significant limitation associated with purposive sampling is the potential for selection bias (Miles & Huberman, 1994; Saumure & Given, 2008b). Participants are chosen according to criteria or preferences established by the researcher, e.g. ease of access, possession of desired traits, willingness to participate, relationship with the researcher, and so forth. This is open bias in sampling, and again, findings from this type of sample may not reflect the broader population.

In addition, because a purposive sample often includes a small and homogeneous group, it may not capture variability within the target population (Tongco, 2007). This lack of diversity may skew the data, leading to findings that are contextually specific and not generalisable (Etikan et al., 2016; Marshall, 1996). Another concern arising from using a small homogenous sample is that the limited range of participant perspectives represented may be too narrow to ensure data saturation during analysis, resulting in incomplete or shallow findings (Robinson,

2014). This is a problematic outcome particularly in research like the present study where the objective is to achieve in-depth understanding of a complex social phenomenon.

There are a number of strategies for mitigating the limitations of purposive sampling, and a few were applicable in my situation. As per Ritchie et al. (2014), it was feasible to counter the potential for selection bias by establishing explicit, clearly defined participant inclusion and exclusion criteria that aligned with the research objectives, and then transparently refer to the criteria in the participant invitation letter and informed consent documents, and report the criteria here in this thesis. Additionally, sample selection for this study was based on purely objective measures: I invited all candidates who met the sample criteria and turned no volunteers away, practically eliminating the possibility of selection bias. As recommended by Lincoln and Guba (1985), I engaged in reflexivity and documentation throughout the research proposal writing and sample selection processes. This was made easier because the decision-making processes around sample selection were relatively uncomplicated: the research population was small, the number of sampling criteria was low, and criteria were precisely targeted to unique conditions and characteristics.

As described above, homogenous samples can adversely affect findings due to a lack of diversity and representation (Etikan et al., 2016; Robinson, 2014). The researcher can mitigate this effect and increase the possibility of obtaining a representative sample by applying expert knowledge when choosing the sample from the research population (Battaglia, 2008). I was able to employ this strategy because I am completely familiar with the target research population. The participants are my colleagues, we share the same workplace and have existing working relationships and established personal rapport. My sample was relatively small and homogenous, but Ritchie et al. (2014) note that small samples are acceptable if there are few sampling criteria; purposive sample size should increase with the number of criteria. A reasonably homogenous population can even be an advantage because in such a case 'a smaller sample will contain all the internal diversity that is needed' (p. 163). The researcher can conduct a detailed analysis of a particular phenomenon that all participants experience in common while a similarly detailed analysis of a large sample would generally not be possible due to the resources and time required (Ritchie et al. (2014).

As the findings presented in the next chapter illustrate, by engaging in iterative, fine-grained analysis and aiming for the production of rich description, I was able to tease out the internal diversity within the small sample employed in the present study. The longitudinal nature

of the study combined with the restrictive atmosphere of the pandemic times to support such extended analysis and the achievement of data saturation, the point in thematic analysis when no new information emerges from the data (Creswell & Plano-Clark, 2011). Attaining data saturation is an additional mitigation tactic for the limitations of purposive and convenience sampling (Fusch & Ness, 2015). I also employed member checking by reviewing portions of interview transcripts and elements of my analytic work with my participants when we met in our virtual interview spaces. This is a well-established qualitative research strategy for validating findings and ensuring diverse perspectives are accurately represented and not misinterpreted (Birt et al., 2016; Creswell, 2014). Finally, being transparent in acknowledging the limitations of my sampling approach and its potential impact on the generalizability of my findings as I have done here, and contextualising the findings accordingly, can enhance the overall quality and trustworthiness of this qualitative study (Denzin & Lincoln, 1994; Ishak & Bakar, 2014; Palinkas et al., 2013).

The participants in this study were all experienced ELT teachers with years of service in higher education institutions; Table 3.1 provides basic demographic and professional background information for each participant. Along with being willing to participate in this study, all participants met the purposive sampling criteria of being an experienced EFL teacher carrying a course load in the WBU Department of Languages during the period of the emergency adoption of online e-learning technologies and methodologies associated with the COVID-19 pandemic emergency that began in early 2020.

Table 3.1: *Teacher Demographic Information*

Participant	Gender	Total Teaching Experience	ELT Teaching Experience	Higher-Ed. Teaching Experience	Pre-ERT Online Teaching Experience
T1	M	14	14	14	No
T2	M	22	22	14	Yes 15 yrs.
T3	M	21	21	11	Yes 10 yrs.
T4	M	11	11	5	No
T5	F	3	3	3	No

Note: Experience is listed in years.

3.4 Instrumentation and Data Collection

The primary data collection instrument used for this study was a set of four interview protocols used to guide four series of in-depth semi-structured interviews with the five teacher participants

(total interview N = 18; see Appendix II: Teacher Interview Protocols 1–4). All protocols were developed by the researcher, sometimes with help from colleagues and more expert others. This approach to instrument development is common in qualitative research, and it gives the researcher a greater degree of control over the data collection process, and the flexibility to make changes and adjustments to instruments as needed to accommodate changes in the research questions, new sources of data, questions that arise during interim analysis, and so forth (Creswell, 2013; Creswell & Poth, 2018; Denzin & Lincoln, 2018). This section details the instruments developed and data collection methods used in this research project.

3.4.1 Semi-Structured Interviews

Interviewing is a standard data collection method for all types of qualitative research (Creswell, 2013; Mann, 2016). The purpose of the study and the research questions guiding the study determine who will be interviewed and what questions will be asked (Creswell & Poth, 2018). Interview questions are often developed as sub-questions of the primary research questions, with phrasing changed to be understandable by the interviewees (Creswell & Poth, 2018). During an interview, the interaction between interviewer and interviewee becomes a site for knowledge construction (Brinkmann & Kvale, 2015).

Unstructured interviews are the ideal form for grounded theory research (Corbin & Strauss, 2015), but in this case I felt that a degree of structure was appropriate because I was not communicating with the participants face-to-face, there were sometimes problems with the internet connection, and I wanted to use the limited time available efficiently. I used introductory material, cues, and probes to open, extend and guide discussion as recommended by the researchers cited above. In the end, I found that using an interview protocol to frame and guide each of the semi-structured interviews conducted for this study offered the advantage of a minimal level of systematisation while avoiding implied limits on answers so participants could frame their responses and expand on areas of interest as directed by their own perspectives and inspirations (Gall et al., 2003; Marshall & Rossman, 2014).

Protocol development was guided by principles outlined by a number of authors on the topic of designing and conducting in-depth qualitative interviews (Corbin & Strauss, 2015; Creswell, 2013, 2014; Gall et al., 2003; Turner, 2010; others). The general interview guide or semi-structured approach (Gall et al., 2003; Turner, 2010) was chosen for the flexible and open but efficient style of this type of interview. Each interview protocol included an introduction to

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the interview topic (to be read aloud by the researcher), both to make the purpose and objectives of the interview clear and stimulate thought on the topic (Turner, 2010). This was followed by a set of open-ended guide questions, with each question accompanied by 2 or 3 suggested probes. Question numbers varied according to the primary topical focus of the interview, and questions were arranged thematically to organise focus on multiple topics per interview session. My objective was to use an initial topic focus to stimulate the interviewee into a relatively open-ended conversation that could then be guided either with the prewritten probes included with each item on the interview protocols or spontaneous probes as appropriate.

A universal limitation that affects any type of interview is reliance on participants' self-reported data, which may be affected by recall bias, social desirability bias, or unwillingness to disclose sensitive information (Patton, 2015). Participants may be reluctant to answer accurately or engage in misrepresentation by withholding information or providing socially desirable responses, an issue that is exacerbated if participants distrust the interviewer or the research process (King et al., 2018; Patton, 2015). Participants may tailor their responses to what they believe the interviewer wants to hear, particularly when discussing personal or controversial topics (Mann, 2016). Similarly, acquiescence bias is represented by a respondent's tendency to agree with any statements or questions posed by the researcher instead of expressing their true feelings or beliefs (Podsakoff et al., 2003). This type of bias is particularly prevalent in contexts where participants perceive the interviewer as an authority figure, feel social pressure to conform, or lack confidence in their own knowledge (Van de Vijver & Tanzer, 2004). Open-ended questions may also unintentionally encourage agreement due to the use of leading or suggestive phrasing, and overly-complex questions can prompt participants to provide affirmative responses rather than offering critical or divergent views or exposing a lack of knowledge (Foddy, 1993).

The semi-structured interview design used in the present study is popular in qualitative research for the flexibility and depth of coverage this style of interview can offer (DiCicco-Bloom & Crabtree, 2006). However, semi-structured interviews present several methodological and practical limitations. This style of interview is valuable for exploring individual experiences and perspectives, but may not always capture broader social or cultural dynamics, causing researchers who rely solely on this method to miss contextual factors or collective experiences that other qualitative methods such as focus groups or ethnography might capture more effectively (Flick, 2014). In addition, the quality of data gathered in a semi-structured interview

is highly dependent on the skill and experience of the interviewer; Brinkman (2018) describes skilled interviewers as better equipped to facilitate meaningful discussions, encourage elaboration, and adapt to the flow of the interview while remaining focused on the research objectives. Inexperienced interviewers, on the other hand, may struggle to balance structure and flexibility, resulting in interviews that lack depth or stray off topic and deviate significantly from the research goals (Brinkman, 2018; Mann, 2016).

Interviewer bias is a critical concern because the interviewer's skills, biases, and demeanor have significant influence on the quality of data collected during semi-structured interviews (Creswell, 2013; Kvale & Brinkman, 2009; Mann, 2016). In this type of interview, the interviewer often has considerable freedom to ask follow-up questions or probe into certain areas, which can inadvertently introduce their own biases into the conversation (Creswell, 2013). The interviewer's expectations or personal experiences might lead them to emphasize certain topics while neglecting others, and leading questions, non-neutral behavior, and the interaction style engaged by the interviewer are all factors with the potential to shape participants' responses and the direction of the interview (Bryman, 2016; Mann, 2016; Rubin & Rubin, 2012). By allowing the potential for significant variability in questioning across multiple interviews, use of the semi-structured interview format can lead to inconsistent data collection that makes it challenging to compare data among the interviews (Bryman, 2016).

Work in sociology and social psychology (e.g. Holstein & Gubrium, 2003; Mishler 1986) has problematised the qualitative interview by establishing that interview talk is inevitably shaped and biased because it is a co-construction between the interviewer and interviewee regardless of the approach taken or style adopted by the interviewer (Holstein and Gubrium 2003; Mann, 2016). 'There have been numerous arguments that we cannot treat interviews as an unproblematic technology that somehow reveals what is real, authentic, and objective' (Mann, 2016, p. 149). Mann (2016) posits that recognising the presence and unavoidable effects of co-construction is possibly the most important initial step an interviewer can take to mitigate what is one of the overarching limitations of interviewing as a data collection method.

Mann (2016) contends that attention must be paid to what the interviewer is bringing to the process and to the way that participant identities are being managed at various stages of the interview. Reading Mann during preparation of this section of the thesis and shortly after conducting my first two interviews and listening to the audio files, I recognised a tendency to

shift from researcher and interviewer into my identity as a colleague and friend of my interviewees. This was leading me into conversational departures and discussions of my own perceptions around the topics being addressed in the interview, to such an extent that on some of the protocol items I was doing more speaking than my participants. This realisation instigated adjustments to the protocols along with greater self-awareness and a more reflexive approach on my part, in line with Mann's (2016) call for the conduct of qualitative interviews to be a focus of the habits of reflective practice, which is 'essential to the quality and transparency of the use of qualitative interviews' (p. 2).

King et al. (2018) call for comprehensive interviewer training as an approach to minimizing bias and enhancing consistency, while Creswell and Poth (2018) suggest that researchers develop skills in non-leading questioning, active listening, and effective probing. I worked on self-training via the multiple practice opportunities afforded by conducting sets of 4 or 5 repetitive interviews based on the same protocol. The inability of my automatic transcription software to fully decode the participants' accents and pronunciation forced me to undertake many reviews of the interview audio files while working through translations and corrections on the printed transcripts. This provided me with ample opportunity to reflect on the effectiveness of my approach to the art of interviewing and my role and performance as an intereviewer. This iterative refinement work can be considered as part of the analytic rigour and systematic data processing that Braun and Clarke (2012) suggest to mitigate the potential for bias and inaccuracy in results drawn from interview data. The whole process helped support increased accuracy and usability of the transcript data, which in turn improved the overall quality of the analysis processes and results.

Using protocols for the interviews helped standardize questions while allowing flexibility for follow-up probes as per the suggestions of DiCicco-Bloom and Crabtree (2006). I standardised the protocol template to a single form with spaces for pasting in updated content as required for each set of interviews, thereby reinforcing structure, consistency, and a scripted effect similar to the design of a fully-structured interview protocol. This aided me in maintaining a journalistic-style interviewer mode, projecting a professional demeanour, and minimising my own 'interviewer talk' while still engaging in enough interchange to draw adequate response from the interviewee and guide the interview. Minimizing interviewer talk on my part allowed more efficient data collection and helped reduce the potential for introduction of bias via my

own demeanour, tone, expectations, preferences, or experiences as noted by Bryman (2016), Mann, (2016) Rubin and Rubin (2012), and other authors on qualitative interviewing.

The interviews for this study were by necessity conducted in virtual spaces afforded via the Google Meet video conferencing application, with the video function switched off in deference to bandwidth availability. Online interviews are subject to their own particular limitations that I had to be prepared to mitigate. For example, Self (2021) and Carter et al. (2021) point out loss of the benefits of non-verbal communication and body language along with the ever-present possibility of technical difficulties as weaknesses of online interviewing. In some cases during data collection for the present study, mitigating challenges was as simple as repeating/rephrasing questions or answers until understanding was assured, reading from the protocol more carefully and clearly, or encouraging noisy children to play in another room.

Finding an alternate connection when GM slowed down or dropped off the network part way into an interview was not always so simple, and sometimes having patience to wait out a dip in bandwidth or the flexibility to reschedule were the best mitigation strategies. As a balancing factor against the various limitations and challenges specific to online interviewing, Self (2021) contends that interviewing in a virtual environment rather than F2F may reduce the effect of social demands on a respondent, helping to reduce the tendency to answer questions in ways that are perceived as socially desirable. Interviewees may also feel more comfortable with answering questions frankly and going into sensitive details in the online environment than they would be when sitting face-to-face (Sah et al., 2020).

3.4.1.1 Interview Data Collection

The interview data collection process for this study was initiated in mid-October 2020, when I requested and obtained clearance for this research project from the West Bank University Office of Scientific Research (see Appendix III University Research Clearance Letters). Later that same month, I sent invitations to participate by institutional email to seven potential participants in the WBU ELT Department (see Appendix IV for the Research Participant Invitation Letter). The *Invitation to Participate in a Research Project* proposed the possibility of at least six interviews lasting 60 minutes each as the estimated time requirement for participation in the project. Options for scheduling additional interviews as needed by mutual consent, or sending follow-up questions by email were also noted in the invitation to participate. The invitation made it clear that each interview would be audio recorded, transcribed, and used as the primary

data source for the research project. The following statement from the invitation is reproduced verbatim: 'Participation in this research project is completely voluntary, and you may choose to withdraw at any time or decline to answer any questions that you do not feel comfortable with.'

I received five positive responses, acknowledged them via return email, and moved ahead with plans to make face-to-face contact with the participants, obtain signed informed consent forms (see Appendix V for the Research Study Informed Consent Form), and schedule initial interviews. The *University of Nicosia Research Study Informed Consent Form* presented to the participants was based on an official template provided by the University of Nicosia Department of English Language and Literature. The form included a plain-language description of the study, the research questions, and other information to ensure that participants were completely informed. It also included a privacy statement, notification that there would be no costs or payment associated with participation in the study, and an extended, detailed explanation of the voluntary nature of such participation. Participants were also offered a copy of the research clearance letter from the WBU Office of Scientific Research.

Interview scheduling was carried out via email, with interview dates and times chosen according to the participants' availability and convenience. Following Mann's (2016) suggestion, a greater number of short interviews were planned rather than one or two long ones that might be exhausting for the researcher and participants. A longitudinal series of interviews also has the possibility of eliciting retrospective reflections over time (Mann, 2016). When the interview series was complete, four of the five participants had been interviewed four times each; one participant (T4) was interviewed two times, then appeared reluctant to participate in further interviews and refused the researcher's attempts to schedule more (see Table 3.2).

Table 3.2: *Teacher Interview Schedule*

Participant	Interview 1	Interview 2	Interview 3	Interview 4
T1	06/11/2020	21/12/2020	24/04/2021	28/07/2021
T2	24/10/2020	15/12/2020	06/03/2021	31/07/2021
T3	16/10/2020	26/11/2020	11/02/2021	04/06/2021
T4	27/12/2020	11/03/2021		
T5	15/10/2020	26/11/2020	27/02/2021	13/07/2021

Note. Interview schedule is provided to evidence context within the pandemic emergency period.

All interviews were conducted remotely via the Google Meet application, with the interviewer and participants connecting from their respective homes, over the time period between October 16, 2020, and July 31, 2021. The interviews were conducted in English and averaged 50 minutes in length, with the shortest being 30 minutes and the longest being 104

minutes. I used the Otter.ai. smart phone-based automatic recording and transcription application to record, transcribe, and temporarily store interview data before transferring it to permanent storage on a USB drive. As previously noted, all transcripts required extensive review, error correction, and clarification. This process of reading, correcting, and annotating interview transcripts while repeatedly listening to the recordings constituted the initial data familiarisation stage of the thematic analysis process, as suggested by Braun and Clarke (2006, 2012), Ryan and Bernard (2003), and other qualitative researchers.

Concerning the online administration of participant interviews, as the capability and flexibility of computer-mediated communication have expanded, some researchers have proposed that it is not necessary to assume that qualitative research interviews need to be carried out face-to-face (Hammond & Wellington, 2021; Mann, 2016). It is possible that face-to-face interviewing may not make a significant difference in practice, while CMC-aided distance interviewing provides some clear benefits in terms of cost, convenience, defeat of distance and time barriers, and possibly in offering more comfort for some participants along with supporting more reflective, detailed responses in some cases (Hammond & Wellington, 2021; Sah et al., 2020). Creswell and Poth (2018) caution the researcher to weigh the benefits of online interviewing against drawbacks such as difficulty in obtaining complete informed consent, lack of visual contact in some instances, and challenges that technology may present to some participants. Sullivan (2012) asserts that the benefits of CMC-supported interactions strongly outweigh any drawbacks. In any case, interviews and focus group interactions were already being increasingly conducted online 20 years ago (Mann & Stewart, 2000), and certainly now, in the age of COVID, a variety of online CMC platforms including Zoom, Google Meet, and others have come into nearly ubiquitous use in education and many other professional fields.

3.5 Data Analysis

In the formal analysis stage of grounded theory method, inductive thematic analysis (TA) is a standard approach (or the required approach as per Glaser and Strauss [1967]) to processing raw qualitative data for the purpose of extrapolating meaning that can be useful for answering research questions and potentially contribute to the development of substantive theory regarding the topic of interest (Braun & Clarke, 2012; Urquhart, 2019). In the literature on qualitative research, 'theme' most often refers to a meaning-bearing pattern in data (Braun & Clarke, 2006, 2012; Creswell, 2013, 2014; Ryan & Bernard, 2003). There is argument among qualitative

researchers about the exact definition of theme (DeSantis & Ugarriza, 2000), but for the purposes of this study, I accepted a theme to be a reoccurring pattern of ideas or constructs in qualitative data (Ayres, 2008; Corbin & Strauss, 2015; Creswell, 2014; Lincoln & Guba, 1985) that 'captures something important about the data in relation to the research question' (Braun & Clarke, 2006, p. 82).

Therefore, TA can be viewed as a method for searching out patterns of explicit or implicit meaning in a qualitative data set, then organising those patterns in a way that tells a story about the subject of the research (Ayres, 2008; Creswell, 2013, 2014). In GTM, the ultimate purpose of TA is to discover the theory that may be grounded in the data (Urquhart, 2019). In relation to the concept of theory as applied in GTM, I accepted Gregor's (2006) explanation that theories are *'abstract entities that aim to describe, explain, and enhance understanding of the world, and in some cases, to provide predictions of what will happen in the future and to give a basis for intervention and action'* (p. 616).

The method used to sort and organise raw qualitative data into themes during the TA process is referred to as *coding*. In their seminal work, Glaser and Strauss (1967) do not define or explain inductive qualitative coding. They simply introduce their *Constant Comparative Method* (CCM) by describing it as a strategy for the systematic generation of theory '*by using explicit coding and analysis*' (1967, p. 102, emphasis in original). Glaser and Strauss explain that coding may consist only of noting categories in margins (of transcripts, for example) but can also be done more elaborately. The current more complete definitions and details of qualitative codes and coding were developed by later researchers and authors (cf. Charmaz, 2014; Strauss & Corbin, 1998; Corbin & Strauss, 2015). Simply put, 'Coding means we attach labels to segments of data that depict what each segment is about' (Charmaz, 2014, p. 37). Such a label is typically a word or short phrase that captures the essence of the data segment (Braun & Clarke, 2012; Charmaz, 2014).

The purpose of coding is to reduce large volumes of data into manageable chunks by distilling meaning from the data and sorting it according to categories of meaning, a process that in turn supports comparison and evaluation of those categories leading to identification of patterns and themes across the dataset (Braun & Clarke, 2012; Charmaz, 2014; Spencer, Ritchie, & Ormston et al., 2014). In CCM as proposed by Glaser and Strauss (1967), and in many other qualitative coding paradigms, coding data means converting the data, generally text, into concepts (Charmaz, 2014). For example, in the paper on social loss that Glaser and Strauss refer

to throughout their 1967 book, the authors give examples of the generation of thematic category titles including *social loss*, *calculation of social loss* and so forth. Concepts not only describe categories of meaning present in the data, they are also used to reveal links between the categories as part of the process of organising data into thematic subcategories, then into core themes that represent new emergent categories of meaning and may also be related to questions posed by the researcher (Charmaz, 2014; Spencer, Ritchie, O'Connor et al., 2014).

In their introduction of CCM, Glaser and Strauss (1967) distinguish two basic approaches to qualitative analysis differentiated by the aims and implementation of the data coding and categorisation processes. The first of these two approaches is operationalised in a hypothesis-testing framework. The analyst codes all relevant data, then systematically assembles, assesses, and analyses the data in the effort to locate support or nullification of a proposed hypothesis. It can be recognised that this approach is based on positivist principles. The second analytic strategy is aimed at generating theoretical ideas—new categories, hypotheses, and interrelated hypotheses—and requires the analyst to engage in 'constantly redesigning and reintegrating his theoretical notions as he reviews his material' (Glaser & Strauss, 1967, p. 101). This second method, involving joint (as opposed to separate) coding and analysis processes applied in ongoing iterative reflection on and comparative analysis of qualitative data, can be recognised as GTM. Most current approaches to qualitative analysis involve some variation of the second method, as does the present study.

The majority of coding in a GTM analytic project will be open coding, the initial phase of coding where data is broken down into discrete parts, closely examined, and compared for similarities and differences; this is the beginning of the inductive process of concept and category development from data (Siegle, 2023; Strauss & Corbin, 1998). Open coding processes may include in vivo coding, the use of participants' exact words and phrases as codes (Siegle, 2023). In the original GTM model, the second and final phase of coding is selective coding, the work of identifying and developing the core thematic category or central phenomenon in the data and systematically relating all other categories to it in a process of refining and integrating the data into a coherent narrative (Corbin & Strauss, 2015; Strauss & Corbin, 1998).

In later GTM paradigms, a third type of coding—axial coding— is introduced as a step between initial open coding and selective coding (Siegle, 2023; Strauss & Corbin, 1998). Axial coding involves reassembling the data that was broken apart in open coding processes and reorganising and re-categorising it in new ways in an effort to establish connections and linkages

between concepts and explore how they relate to each other (Charmaz, 2014; Siegle, 2023). In the axial coding process, analysis of thematic categories in the data is aimed at generating concepts that specify the dimensions of larger, overarching categories or structures of meaning underlying the data, and linking the subcategories within these frameworks (Siegle, 2023; Strauss & Corbin,1998). Selective coding then follows as a process of further refinement and organisation of the data in pursuit of a core category or central theme that captures the essence of the data and represents an explanation or theory that accounts for the observed phenomena (Siegle, 2023).

3.5.1 Analytic Procedures

Braun and Clarke (2012) outline a six-phase model operationalising the TA process. Their description corresponds with those offered by well-known research methods textbook authors (cf. Gay et al., 2011) and other qualitative researchers (cf. Bernard & Ryan, 2016; Ritchie & Spencer, 2002).

Familiarisation with Data: Becoming intimately familiar with the data by repeated handling, reading, and listening and noting initial ideas and questions while doing so.

Generating Initial Codes: Beginning the systematic identification of data features that appear interesting and meaningful. Coding can be done manually or with the help of software.

Searching for Themes: Examining the codes and collated data to identify significant broader patterns of meaning: themes.

Reviewing Themes: refining the themes and ensuring they accurately reflect the data.

Defining and Naming Themes: Defining what each theme is about and determining how it supports understanding meaning in the data.

Producing the Report: weaving the themes together to tell a useful, compelling story about the data.

This Braun and Clarke six-phase model is well-represented in the literature, easily understandable, and practical, so I adopted it as a general structure for my analytic approach. Note that this simplified summary does not imply that GTM data analysis is a linear process; it is iterative, recursive, fluid, multi-directional, messy, and integrated with other aspects of the research, including continuing data collection, literature review, and report writing (Ayres, 2008; Belgrave & Kapriskie, 2019; Spencer, Ritchie, Ormston, et al., 2014; Stake, 2006).

In alignment with the original Glaser and Strauss (1967) CCM model for grounded theory development, Spencer, Ritchi, and Ormston et al. (2014) explain that 'analysis does not begin when the researcher has finished collecting their data, but is an ongoing and inherent part of the whole process of qualitative research and should infuse all aspects' (p. 354). This was the case in the present study, and procedures for surfacing themes from the data and seeking answers for the research questions (RQs) took the form of a holistic process carried out for almost the entire length of the study. From the earliest stages of the literature review, I created sets of topical notes that ended up extending for hundreds of pages. My notes included a separate document dedicated solely to capturing what I viewed as specifically RQ-focused material. Using the research questions for section headings, I dropped relevant literature outtakes, reference information, and my own annotations under each question. This process aided me in building background knowledge related to the research questions, alerted me to possible answers, and generally engaged me in being attentive to and reflecting on the questions throughout the literature review processes.

Including themes and items designed to be relevant to the research questions in Teacher Interview Protocols 1–4 comprised a second strategy for initiating the search for answers to the research questions. Teacher Interview Protocol 1 was largely based on the research questions. while Protocols 2–4 drew from the research questions but were also influenced by information and questions that emerged from prior interview data. In this way, the research questions indirectly served as an a priori framework for data collection, a common practice in qualitative research (cf. Creswell, 2013; Denzin & Lincoln, 2018). The general outline below illustrates connections between the research questions and the interview protocols that guided the series of semi-structured teacher interviews that were the primary data collection instruments in this study. Note that there are various degrees of cross-over between items and questions; the most direct connections are exemplified here (see Appendix II: Teacher Interview Protocols 1–4).

1. How do the WBU English language teachers view the adoption and use of e-learning as a pedagogical tool under the conditions of ERT?

Protocol 1 Items: 1, 2, 3, 4, 5, 7

Protocol 2 Items: 1, 2, 4, 5, 8

Protocol 3 Items: 1, 8

Protocol 4 Items: 1, 3, 14

2. How did the rapid transition from traditional face-to-face teaching to the use of e-learning methodologies impact the professional practices of the WBU English language teachers?

Protocol 1 Items: 2, 3, 5,

Protocol 2 Items: 1, 2, 3, 6, 7, 9

Protocol 3 Items: 1, 2, 3

Protocol 4 Items: 1, 4, 5, 7, 9, 10, 11, 12, 13

3. How did the experience of ERT affect the WBU English language teachers' beliefs about the use of e-learning in the Palestinian educational context?

Protocol 1 Items: 6, 7

Protocol 2 Items: 4, 5,

Protocol 3 Items: 4, 6, 7, 9, 10

Protocol 4 Items: 1, 2, 3, 8, 15, 17

4. How does the landscape of challenges and possibilities in the adoption and use of digitally-mediated teaching methodologies as pedagogical and professional-development tools for the WBU English language teaching programme appear as viewed through the lens of pandemic ERT?

Protocol 1 Items:1, 2, 5, 6, 7

Protocol 2 Items: 1, 2, 5, 10

Protocol 3 Items: 1, 2, 3, 4, 8, 9, 10

Protocol 4 Items: 1, 2, 3, 11, 13, 14, 15, 16, 17

5. How can theories regarding effective e-learning pedagogy contribute to the development of a model for transitioning out of the ERT model into ongoing e-learning adoption and use in the WBU English language teaching programme?

Protocol 1 Items: NA

Protocol 2 Items: 3, 4

Protocol 3 Items: 1, 2, 3, 6, 9

Protocol 4 Items: 3, 8, 9, 10, 11, 15, 17

As previously discussed, the use of pre-established analytic frameworks is discouraged in grounded theory methodology and contradicts the original precepts of GTM as outlined by Glaser and Strauss (1967). So does the use of research questions or even pre-research literature review; as Inaba and Kakai (2019) explain, these are some of the ways that GTM has been

transformed over the decades since it was introduced. In GTM, the objective is seeking theory that is emergent from raw data that is as free of bias as possible. In line with the same ethic, the preferred data for GTM is collected by means of unstructured interviews and observations, then analysed via purely inductive processes (Corbin & Strauss, 2015; Glaser & Strauss, 1967). The interview protocols I used for this study represented pre-established deductive categories or codes developed by the researcher as an outsider, also referred to as etic codes (Creswell & Poth, 2017; Miles & Huberman, 1994). These etic codes had the effect of initially shaping and sorting the data during the collection process.

Rough inductive analysis was applied to the teacher interview transcript data during initial listening/reading/correction work, a process corresponding to the data familiarisation step in Braun and Clarke (2012). General impressions, interesting features, and potential thematic concepts were recorded in research notes, comments, highlights, and bolding were applied to the doc versions of the transcripts, and the hardcopies accumulated annotations and markups as well. I also continued adding to the RQ-specific notes I had established during initial literature review. These processes generally began soon after each interview during conversion of the automatic transcripts to Word documents suitable for use with NVivo 12 and useful for other purposes. The analysis process proceeded with deeper immersion in the data and increasing familiarity; more intensive systematic analysis began and coding was initiated. Initial coding (Braun & Clarke, 2012) or indexing (Ritchie & Spencer, 2002) is the process of identifying portions of data that may correspond to and comprise a particular theme.

In this case, the processes of transcript review, correction, and note-taking led seamlessly to initial rough coding in the form of developing tentative categories and selecting, coding, and sorting words, phrases, and passages according to their apparent relevance to one or more of these categories. Kuckartz (2019) notes that all forms of qualitative content analysis are based on various categorisation techniques, and outlines three principal means of developing categories: (a) concept-driven, or deductive development; (b) data-driven, or inductive development; and (c) mixed concept- and data-driven development. In concept-driven development, categories are commonly derived from the literature, a theory, or from the research questions or an interview protocol based on those questions. Data codes and category labels as operationalised in the present study followed the model presented by Braun and Clarke (2006, 2012) and Charmaz (2014) of succinct shorthand labels (understandable to the researcher) that marked pieces of data as potentially relevant to one or more of the emergent

categories, the research questions or to other questions or issues of interest. For example, [teacher] *beliefs re. E-Learning*; *Beliefs re. ERT*; *Perceptions-Student Motivation* are examples of initial rough conceptual codes and potential thematic category heads suggested by the research questions and interview protocols. These initial manual passes through the data for familiarisation purposes and rough coding revealed that the research questions themselves were not particularly useful as analytic frames. They contained only a few key word candidates, for example 'e-learning' or 'ERT' that appeared with any frequency in the transcripts. When used in word searches, these tended to produce very general results that were usually only useful as starting points for further manual search and analysis.

This initial data familiarisation work and rough categorization and coding was carried out during the ongoing interview processes. Once the interviews were completed and all transcript data cleaned and converted to Word doc format, the data was uploaded to NVivo 12 Mac qualitative analysis software (www.qsrinternational.com/nvivo/home). NVivo is designed to be used in the processes of storing, organising, coding, categorising, analysing, and visualising qualitative data. Using such software makes it much easier for a researcher to sort through a large body of data and retrieve all material relevant to a particular theme (Ayres, 2008; Campbell et al., 2013). After uploading, the full-text versions of any data input to NVivo remain available in the programme to review, edit, manipulate, and use for support in the coding process. The formal data analysis phase began with automated sorting via NVivo 12 based on interview protocol themes used as top-level analytic nodes, and secondary nodes created from key words and phrases drawn from the interview questions. The nodes represented virtual categories that chunks of data were sorted into. I also created sets of search queries based on words and phrases that appeared frequently in the transcript data. The program's automatic coding function allows the researcher to set specified numbers of words for collection along with the target words. This emulates the key-word-in-context coding approach described in the qualitative research literature (Bernard & Ryan, 2016; Creswell, 2013, 2014; Gay et al., 2011). Running NVivo queries in an iterative process while refining, adjusting, and adding search terms automated a significant portion of the initial data analysis work.

Using the research questions or another etic framework as a source of direct analytic categories risks causing biased findings if the researcher is tempted to force data into the pre-established categories (Corbin & Strauss, 2015; Lincoln & Guba, 1985). This is a basic principle of qualitative analysis, yet when a researcher faces a volume of qualitative data, some element

of structure is useful to at least bring some initial order to the data. To that end, the use of research questions, interview themes or queries, or other a priori categories or codes can be a useful strategy for qualitative data analysis, and particularly for initial rough sorting of data (Creswell & Poth, 2017; Miles & Huberman, 1994; Ritchie & Spencer, 2002).

In qualitative research, the researcher-as-instrument paradigm includes the concept of researcher-as-analytic-instrument, and repetitive deep immersion in the data is a requirement of qualitative analysis (Bernard & Ryan, 2016; Campbell et al., 2013). When working with NVivo, I noticed some degree of disconnect with the data, and weak connection between the isolated pieces of text retrieved from NVivo and the real-life words and emotions present in the interviews. In my view, the feeling of authenticity is missing when a researcher is not listening to audio recordings and/or looking at live transcripts, where it is easy to skim up and down to pick up context around an answer or utterance and recall the tone of voice and body language of the respondent when giving that answer. When using Glaser and Strauss' (1967) constant comparative method to establish analytic distinctions, data is constantly evaluated against other data to find similarities and differences; comparison is carried out both horizontally across a level of coding, and vertically at each level of the work, and in an ongoing manner that is integrated with the collection of the data (Charmaz, 2014; Corbin & Strauss, 2015; Glaser & Strauss, 1967). As I understand it, CCM is a very dynamic, fluid analytic process that can involve moving quickly and in any direction throughout the data. This is difficult to replicate on a computer.

For this reason, I engaged in a second analytic approach based on the use of manual qualitative coding techniques. Spencer, Ritchie, O'Connor et al. (2014) recommend the use of Xcel sheets or Word docs as a simple and effective option for preparatory analysis before moving to the complexities of computer analysis. Bernard and Ryan (2016) claim that qualitative means 'done by a human,' and given the type (time-series) and volume (small) of data I needed to handle, organise, and analyse, I found it fast and convenient to manually carry out analytic processes. Granted that I had the advantage of having some initial categorisation work automated by NVivo, but a coding approach based on the use of MS Word documents along with the comment, highlight, and text box tools proved to be a simple, low-resource method suited to developing country research sites. Leveraging the affordances of the MS Word program in support of data storage and analysis was a much more fluid, rapid, and simple technique than machine coding with NVivo or another qualitative analysis platform.

My MS Word-powered qualitative analysis, and manual coding as carried out by drag-and-drop inside NVivo were both guided by principles proposed by Braun and Clarke (2012): (a) data was chunked into various-sized segments ranging from sentence parts to multiple sentences; (b) coding was inclusive, sweeping in anything potentially relevant to the research questions; and (c) a copy of each piece of data selected for coding was immediately placed under an appropriate existing or new code on a working document or in NVivo. The data analysis process continued like this for what ended up being years. Analysis was interspersed with interviewing and other research tasks including literature review and writing. Codes and categories developed, combined, transformed, dead-ended, and disappeared according to their explanatory strength in relation to the research questions or emergent phenomena.

Spencer, Ritchie, and Ormston et al. (2014) state that, while the formal analysis phase of a qualitative research project may be the stage when the qualitative researcher is most conscious of analytic processes, if analysis has been truly ongoing, the researcher should already have a strong sense of how the data relate to the research questions by the time formal analysis begins. This proved to be true in my case; it was not particularly difficult to answer the research questions, and one of the criteria that I eventually applied to determine whether or not all relevant themes had been extracted from the data and saturation reached was my own ability to confidently state answers to the research questions. Answers to Research Questions 1 and 2 readily emerged from direct evidence that was scattered throughout the data. Likewise, information regarding the matter of teacher beliefs around the use of e-learning in Palestine that was a focus of Question 3 appeared in a direct manner at multiple points in the data. In fact, research Questions 1–3 could be answered entirely with direct quotes from the participants if I wished, and a reader of Chapter 4 of this thesis will know the answers upon completing the chapter. Answering Research Questions 4 and 5 was more challenging as it required a holistic overview perspective drawn from the sum of the research project: literature review, participant data, and my own experiences and observations as a Palestinian teacher, researcher, and participant in this study. In my opinion, these last two questions could only be properly answered as the study was coming to a close, and I believe I have answered them in an adequate manner.

In concordance with the model of thematic analysis I employed in this study, with thematic categories narrowed down and consolidated into primary themes, no new codes emerging from the data, research questions answered, and no new and useful information strands appearing, I assumed that theoretic saturation had been reached (as per Braun & Clarke, 2012;

Creswell & Poth, 2018; others). The result appeared to be consistent with GMT (Corbin & Strauss, 2015; Urquhart, 2019) and in line with the designed functions of the Braun and Clarke (2012) thematic analysis model: findings in the form of an emerging structured group of meaning-based themes and subthemes, grounded in the data and representative of various relationships between the data and the research questions. This emergent thematic structure will be introduced and discussed in Chapter 4.

3.6 Validity and Reliability

The original GTM paradigm from Glaser and Strauss (1967) has been a particular target of critique over the years for its foundation in and retention of positivist epistemologies (Inaba & Kakai, 2019). Inaba and Kakai (2019) explain that, at the time Glaser and Strauss were developing and introducing GTM, qualitative research in general was not widely accepted or considered rigorous and valid. Critics described it as exploratory, unsystematic, and impressionistic (Glaser & Strauss, 1967). It was difficult to establish GTM or any qualitative methodology as credible against the domination of a positivist quantitative research paradigm that was at that time increasing in sophistication and complexity with the arrival of the computer age (Charmaz, 2014; Inaba & Kakai, 2019). Claiming that formal theory could be drawn from a mass of odds and ends of subjective data was heresy. The atmosphere of the times and their own ideological capture by the epistemic reality of the day most likely contributed to Glaser and Strauss' design of GTM around the application of explicit, complex guidelines to data collection and analysis processes, effectively embedding a positivist mindset or stance in GTM (Charmaz, 2014; Inaba & Kakai, 2019).

Denzin and Lincoln (2018) describe the emergence of critical qualitative inquiry 'out of the qualitative-quantitative paradigm wars of the 1980s' (p. 11) and go on to explain how the qualitative approach gained recognition as an accepted social research methodology and the genre expanded into the proliferating paradigms that comprise modern qualitive inquiry. However, there still exists a tendency for qualitative methodologies to be viewed as lacking in rigor, validity, reliability, and replicability, appropriate at best for use in exploratory work that may later be extended via statistical approaches (Charmaz, 2014; Denzin & Lincoln, 2018; Lincoln et al., 2018). The situation leads Denzin and Lincoln to state that 'Moving forward, it is necessary to confront and work through the criticisms that continue to be directed to qualitative inquiry (p. 12). It is in this spirit that much current thinking in the field of qualitative

research, while now generally open to the multiple and mixed-methods approach to inquiry described by authors like Teddlie and Tashakkori (2011), is beginning to tend towards avoidance of the language of positivism and the concepts of validity and reliability that are associated with quantitative work (Creswell & Poth, 2018; Guba & Lincoln, 1989; Lincoln et al., 2018). For example, running word searches for 'validity' and 'valid' in K. Charmaz' (2014) 746-page work, *Constructing Grounded Theory* (2nd ed.), a continuation of her seminal work on the GTM paradigm, brings up no results.

This rejection is explicit in decolonialist and Indigenous qualitative research paradigms (Denzin & Lincoln, 2018; Kovach, 2018). In a research space where formulaic, antirelational, dismissive empirical inquiry has historically represented a neocolonial, extractive proposition (Gaudry, 2015), traditional positivist conceptions of reality, truth, and knowledge clash with indigenous epistemologies (Kovach, 2018). Such concepts represent aspects of what Indigenous researchers refer to as 'the Western Gaze' that has dominated the body of research focused on Indigenous Peoples and 'led to damaging and fallacious research and policy' (Kovach, 2018, p. 385). Along similar lines of thought, Aguinaldo (2004) argues that, 'as a criterion of assessment, validity polices the social science enterprise and thus, functions as a practice of power through the de/legitimation of [indigenous or otherwise situated] social knowledge, research practice, and experiential possibilities' (p. 1).

In alignment with Kovach's (2018) description of Indigenous epistemology and tribal knowledges as animate and fluid, arising from interconnectivity and interdependency among a multiplicity of sources including nonhuman, Lincoln et al. (2018) state that criteria for judging reality or validity are not absolutist. Rather, 'They are derived from community consensus regarding what is "real": [that is] what is useful and what has meaning (especially meaning for action and further steps) within that community' (Lincoln et al., 2018, p. 219). It is these meaning-making activities of groups and individuals regarding a particular phenomenon or object that are the items of central interest to social constructionist and constructivist researchers (Lincoln et al., 2018).

Despite such emerging realisations and emphases on breaking with the positivist past, qualitative researchers and like-minded educators cling to notions of research validity in apparent acknowledgement of the core positivist tenet that 'research is valid to the extent that its findings offer access to an objective social reality' (Aguinaldo, 2004, p. 128). Qualitative methodologists can be found invoking the concept of social constructivism, then turning to

discussions of triangulation, systematic bias, and peer-checking as if they were not artefacts of classic positivism (Aguinaldo, 2004). Education departments at leading HEIs remain insistent that doctoral candidates and other research writers include sections on validity in their qualitative research papers. All the while, ideas about validity are entirely founded in acceptance of the existence of objective reality, truth, and knowledge (Denzin & Lincoln, 2018; Lincoln et al., 2018), a viewpoint entirely contrary to the principles of both post-modernist and constructivist philosophies. It roots validity in a positivist view of the world and even hints at Skinnerian behaviourism, with its implication that 'invalidity' will bring some sort of penalty aimed at forcing the researcher to achieve 'validity'. Reflecting on the situation, I am inclined to agree with the contention by Lincoln et al. (2018) regarding positivist and postpositivist social inquiry paradigms: 'At the paradigmatic or philosophical level, commensurability between positivist and constructivist worldviews is not possible' (p. 230).

Bryant (2019), Guba and Lincoln (1989), Kovach (2018), Lincoln et al. (2018), Morse (2018), Tracy (2010) and other authors on the new qualitative methodologies, including feminist, Indigenous, Marxist, post-modernist, and queer, use a variety of alternative conceptions when discussing matters of rigor. *Authenticity*, *sincerity*, *credibility*, *confirmability*, *resonance*, and *reliability* all appear and are defined and discussed in this strand of the literature. Guba and Lincoln (1989) refer to 'authenticity criteria' that are hallmarks of authentic, trustworthy, rigorous, or 'valid' constructivist or phenomenological inquiry: *fairness*, *ontological authenticity*, *educative authenticity*, *catalytic authenticity*, and *tactical authenticity*. Lincoln et al. (2018) use similar language in arguing that conceptions of validity cannot be entirely dismissed because they point to a question that must finally be answered in regard to any qualitative inquiry: 'Are these findings sufficiently authentic (isomorphic to some reality, trustworthy, related to the way others construct their social worlds) that I may trust myself in acting on their implications?' (p. 238).

Morse (2018) notes the value of some traditional principles associated with supporting validity and reliability in qualitative research, and describes quality and rigor in qualitative research as features that are first of all built into the design and conduct of inquiry, achieved during the research process rather than awarded after completion. In agreement, I established the groundwork for authenticity, sincerity, and credibility in the present study by designing the research to be carried out in an entirely naturalistic setting, with participants who engaged in lived experiences unaltered by the intrusion of any experimental conditions, observations,

adjustments in their practices, or other artificial and intrusive variables. I was attentive to the importance of obtaining good data, a process that Morse states must be deliberate, cognitive, and systematic rather than haphazard. By means of purposive sampling as previously described, I selected participants who were experts on the topic of inquiry, or at least on the aspect of being an EFL teacher in an HEI English language teaching programme (there were no experts on COVID ERT). As per recommendations from leading qualitative methodologists, my participants were completely immersed in the situation under study, able to formulate and express clear, reasoned perceptions and beliefs on the matter at hand, and willing to work with me on a basis of sincerity and honesty (cf. Creswell, 2013; Creswell & Plano-Clark, 2011; Spradley, 1979). As per Yin (2018), I was careful and systematic in the gathering of data from these participants via the use of standardised protocols, and I also took care in managing, organising, and securing that data.

I worked from an embedded position, engaged in the same activities under the same conditions as my research participants in the sort of prolonged engagement in the field and with the data that is recognised by Creswell (2013), Lincoln and Guba (1985) and other authors as supportive of quality outcomes in naturalistic research. Researcher positioning as both participant and sole analyst may be a potential source of problems including subjectivity and bias, but a number of authors argue that, in qualitative inquiry, 'bias is not by definition counterproductive for research studies, and that biased studies do not necessarily constitute invalid research' (Mantzoukas, 2005; p. 279). Acknowledging that the purely neutral researcher is an unattainable and even problematic ideal (Levasseur 2003; Pillow, 2003), contemporary qualitative researchers often focus on leveraging subjectivity as an integral aspect of data generation (Charmaz, 2014; Koopman et al., 2020; Olmos-Vega et al., 2023).

Arguably more concerning is the possibility of missed themes and unsubstantiated interpretations of data; I mitigated this risk via iterative, intensive, and extensive immersion in data analysis processes in simultaneous combination with data collection and literature review activities as per the classic GTM model. Glaser and Strauss (1967) frame the credibility of a grounded theory study as emergent from the researcher's lived experiences with the participants and the data. A field worker 'knows what he knows about what he has studied and lived through. They are his perceptions, his personal experiences, and his own hard-won analysis' (Glaser & Strauss, 1967, p. 225).

He [the researcher] has been living with partial analyses for many months, testing them each step of the way, until he has built his theory. What is more, if he has participated in the social life of his subject, then he has been living by his analyses, testing them not only by observation and interview but also by daily living. (Glaser & Strauss, 1967, p. 225)

The embedded approach afforded the implementation of features recognised as supportive of quality outcomes in naturalistic research including focus on confirmability rather than objectivity in the data (Lincoln et al., 2018), and the production of rich description from the data (Creswell & Poth, 2018; Geertz, 1973).

Access to standard validity enhancement strategies, in particular peer debriefing, extensive member checking, and inter-rater reliability (cf. Birt et al., 2016; Creswell, 2014; Morse, 2018), was limited by my situation during the research process, and particularly due to restrictions associated with the pandemic emergency. However, as previously reported, during asides in my video conferences with participants, I was able to employ some degree of 'member reflection.' This is an update on the member check model that is more nuanced in that it takes into account the nature of data and interpretations as constructed in context, along with the possibility that participants' may change their perspectives over time, or add new interpretations when they are reengaged on an ongoing basis (Ravenek & Rudman 2013; Tracy 2010). Administering and analysing two online surveys of students participating in emergency remote learning in my ERT courses served as a method of triangulation to help cross-validate insights and reduce the potential for researcher bias as per Patton (2015). The extended time I spent on the analysis phase of the study offered opportunities to apply a code-recode strategy that according to Miles et al. (2014) can reduce inconsistencies in data interpretation and improve the reliability of qualitative analysis. I was also able to achieve data saturation, described by Morse (2018) as the most widely-used method to increase rigor in qualitative inquiry.

Glaser and Strauss (1967) describe a researcher's belief in the conceptual framework that forms an emergent systematic theory, and confidence in her knowledgeability regarding the matter of interest, as arising from the systematic ordering of a scattered series of analyses into an integrated theory. 'This conviction does not mean that his analysis is the only plausible one that could be based on his data, but only that he has high confidence in its credibility' (Glaser & Strauss, 1967, p. 225). The present study evidences the five hallmarks of quality inquiry as listed by Lincoln et al. (2018) and Guba and Lincoln (1989). I have met the criteria of *fairness*

in equitably presenting participants' views, perspectives, values, claims, concerns, and voices in this text. This study achieves *ontological* and *educative authenticity* by driving a raised level of awareness among the individual research participants, and on the parts of these individuals in regard to those around them in the social/organisational setting. The study also has *catalytic authenticity* in that the findings have the potential to prompt action on the part of research participants, and *tactical authenticity* in the form of capacity to underpin the involvement of the researcher in training participants in specific forms of social and political action (i.e. reform of epistemologies and polices around teaching and learning) if the participants desire such training.

Lincoln et al. (2018) point out that a primary criterion for validity in qualitative inquiry is whether or not the researcher is confident enough in the findings to recommend the construction of social policy or legislation based on them. As an indigenous Palestinian EFL teacher who taught full-time through the ERT regime while also conducting this study, I assert the authenticity and credibility of this research and claim such confidence.

3.6.1 Researcher Reflexivity

The traditional ideal of quantitative research has been the effort to discover fundamental truths free of the distortion that any form of bias might introduce (Olmos-Vega et al., 2023; Young & Ryan, 2020). As one outcome of the Enlightenment project of the eighteenth century and the split between the dominant religious paradigm and the emerging scientific paradigm, subjectivity, individuality, and value-laden approaches to explaining and knowing the world were stigmatized as biased and only capable of producing the fictitious accounts or mythologies of primitive religious projections (Mantzoukas, 2005). In this paradigm, researcher bias is to be neutralised if not entirely eliminated. Some genres of qualitative research have maintained this positivistic stance; Olmos-Vega et al. (2023) point out that GTM was originally grounded in post-positivism, or more precisely realist post-positivism that 'adheres to the notion that there is some objective reality to the social world' that can be discerned by means of sufficiently sophisticated research tools (Fox, 2008, p. 662). This model proposed that a researcher should come to an inquiry as a blank slate with no prior knowledge or perspective in place (Glaser & Strauss, 1967).

In contrast, Denzin and Lincoln (2018) describe the post-modernist, Marxist, feminist, queer, and other new paradigms for qualitative social inquiry as being openly biased. They are often framed specifically as projects designed from and around particular political stances held

by researchers who aim towards the achievement of objectives associated with so-called social justice ideals and intend to motivate and inform particular sorts of permanent social change. Much of this modern qualitative research is carried out from a constructivist perspective that rejects notions of an objective reality independent of human action and views knowledge, truth, and meaning as being constructed in a collaboration between researcher and participants (Finlay, 2002; Fox, 2008; Olmos-Vega et al., 2023).

These constructivist models depend on subjectivity (Rees et al. 2020), with the researcher positioned as 'a central figure who influences the collection, selection, and interpretation of data' (Finlay, 2002, p. 531). In this role, the researcher inevitably brings their personal background—cultural context, personal experiences, prior knowledge, education, beliefs, biases, assumptions, and worldviews—into the study, affecting the ways they engage with participants, analyse data, and interpret phenomena (Denzin & Lincoln, 2011; Maxwell, 2013). Research and resulting knowledge are regarded as joint products of the researcher, the participants, their relationships, and their interactions with the social context (Finlay, 2002).

Researcher influence, commonly referred to as researcher subjectivity, is simultaneously a strength and a challenge in qualitative inquiry: while subjectivity can enable a deep understanding of context, it can also introduce inaccuracy to findings (Gough & Madill, 2012). Researcher reflexivity, a strategy for mitigating negative effects that may arise out of researcher subjectivity and influence, encompasses various approaches employed to acknowledge and account for researcher biases and their effect on the research process (Berger, 2015; Olmos-Vega et al., 2023). There is increasing recognition that reflexivity is an essential aspect of qualitative studies (Barrett et al. 2020).

'Reflexivity can be broadly described as qualitative researchers' engagement of continuous examination and explanation of how they have influenced a research project' (Dowling, 2008, p. 747). Finlay (2002) notes that 'Reflexivity' is often used interchangeably with 'reflection' in the literature. Reflection can be distinguished as 'thinking about' as in thinking about something distanced from the researcher, with the thinking taking place after the event; in contrast, reflexivity implies 'a more immediate, continuing, dynamic, and subjective self-awareness' (Finlay, 2002, p. 533). Olmos-Vega et al. (2023) reviewed the body of qualitative methodological publications focused explicitly on reflexivity and synthesised the findings in the development of a comprehensive definition: 'Reflexivity is a set of continuous, collaborative, and multifaceted practices through which researchers self-consciously critique,

appraise, and evaluate how their subjectivity and context influence the research processes' (p. 242).

From an epistemological perspective, a reflexive approach to research recognizes the constructivist view of knowledge as developed throughout the research process and contingent upon existing understandings and beliefs held by researcher and participants (Kvale & Brinkmann, 2009). Olmos-Vega et al. (2023) are explicit in noting that their definition is 'anchored in orientations to research that embrace researcher subjectivity (e.g. subjectivism, social constructionism)' and that 'we do not conceive reflexivity as an apology for the lack of objectivity in a research project' (p. 242). As framed by constructionism, the goal of research is not the achievement of an accurate or impartial representation; this is neither possible nor desirable (Rees et al., 2020).

According to Gentles et al. (2014), researchers may engage in reflexivity for several different purposes depending on the different ways they might think about the relationships between their identity, the context, and the research. They may intend to neutralize, acknowledge, explain, or capitalise on the influence of their subjectivity. In my case, accepting that subjectivity cannot be eliminated from the research process and that such efforts are detrimental to the research as per Charmaz (2014), Finlay (2002), and Koopman et al. (2020), the intention was to use reflexivity to acknowledge my positionality and, as described by Olmos-Vega et al. (2023), capitalise on my knowledge and identities.

Walsh (2003) outlines four overlapping and interacting dimensions of reflexive processes: personal, interpersonal, methodological, and contextual; I found this framework to be a good fit for my own engagement in reflexivity during the present study. Olmos-Vega et al. (2023) warn that journal submission word count limits may hamper researchers' efforts to adequately detail the full extent of their engagement in reflexivity during any given project; they recommend highlighting decisions and dynamics that were most impactful. With that advice in mind, a concise discussion of my engagement in reflexivity follows.

Personal reflexivity involves the researcher in reflecting on and clarifying their expectations, assumptions, and reactions to contexts, participants, and data (Walsh 2003; Dowling 2008; Gentles et al. 2014). In my interpretation, personal reflexivity is tied to acknowledgment of researcher positionality—including gender, race, socioeconomic status, cultural and professional identities—and the ways positionality influences interactions with participants and can shape research processes (cf. Bourke, 2014; Finlay, 2002). As I negotiated

the planning and conduct of this study, I was in constant implicit engagement with my expectations, assumptions, and reactions as they appeared through the lens of my positionality. I think an interesting and valuable form of explicit engagement was represented by the reworking of my research proposal and multiple revisions of the thesis title even through to the very end of the project. Although seemingly simple, each reconsideration of the title motivated reassessment of what I was assuming, expecting, and doing with this research. Several revisions of the research questions had similar effects.

My primary explicit engagement in personal reflexivity was the identification of my national and cultural backgrounds, profession, and current occupational status along with the formulation and detailing of my philosophical stance in approaching this research. The former work was not only informational for readers of this research, it was also useful for establishing and bolstering my own grounding, confidence, and ownership in the role of researcher and participant in this study. The latter effort took significant amounts of time, reading, and consideration; it was invaluable in clarifying my positioning and objectives in relation to my participants and this project. Although I had hoped to engage in similarly detailed examination of my cultural and political positioning as a native and victim of the world's only remaining militarised colonial project, I was discouraged from doing so by my advisors.

Interpersonal reflexivity concerns relationships around the research process and how they might influence the context, participants, and results (Walsh, 2003). As an initial move into interpersonal reflexivity, I was attentive to any participant concerns in regard to anonymity and time commitments in relation to taking part in this study. The informed consent document clearly specified that complete anonymity could not be guaranteed, and further discussion of the matter with individual participants led to a consensus that no significant harm was likely to come from loss of institutional or personal anonymity. I was also respectful and flexible regarding demands on my participants' time, and that matter never rose to the level of a problem, particularly with everyone spending so much time at home anyway due to the circumstances of the pandemic.

Olmos-Vega et al. (2023) recommend a thoughtful approach to interpersonal reflexivity that involves recognising and appreciating the participants' unique knowledge and perspectives and their effects on the research process and data collected. All participants were made aware that I respected and relied on their experience and expertise as foundational to the success of the study. Another aspect of such recognition was letting my participants' authentic voices rise to

prominence in reporting the results of this study and allowing the research to truly be about their perceptions and experiences. I also maintained awareness that, while shared characteristics between the researcher and participants as in the present study can facilitate trust and rapport that allows for richer data collection, this familiarity can also lead to assumptions that hinder critical examination of the data (Bourke, 2014). Mitigation of this risk entailed reducing the possibility of accepting assumptions as facts by repeatedly returning to the data, questioning my impressions or conclusions for undue subjectivity, cross-checking tentative conclusions from one individual's data across data from all participants, and making certain to review concepts against the holistic context provided by the full body of the data combined with my own experience, knowledge, and identities.

As advised by Berger (2015), Finlay (2002) and others as being an important aspect of ethical and equitable research-based knowledge creation, I was attentive to interpersonal power dynamics within the research context. I was alert to ways in which my position as researcher, or other social, cultural, or institutional attributes might affect participants' responses and the knowledge produced. As previously noted, acquiescence bias or yea-saying, the tendency to agree with attitude statements regardless of question content or the respondent's true feelings or beliefs (Podsakoff et al., 2003; Winkler et al., 1982), is a risk related to unequal power relationships between interviewer and interviewees. Similarly, social desirability bias can emerge from participants' desire to give answers that would be seen as culturally acceptable and appropriate; risk of this bias may be amplified by power differential (Nederhof, 1985; Thomas & Kilmann, 1975). Concerning power imbalances between interviewer and interviewees in the present study, I do not believe they appeared as a significant concern as four of the five participants were effectively senior to me in terms of experience and age, and one (T4) held a higher institutional position. Similarly, I believe that acquiescence or social desirability biases were not present as evidenced by the fact that participants commonly gave answers I did not necessarily want to hear, did not comply with my requests (e.g. that they trial Google Breakout Rooms (GBRs) in their virtual classes), and freely critiqued the University and administration.

Methodological reflexivity is the careful and critical evaluation of the nuances and impacts of methodological decisions; this type of reflexivity is a means of enhancing the transparency of research processes (Olmos-Vega et al., 2023; Varpio & MacLeod, 2020; Walsh, 2003). Engagement in methodological reflexivity requires acknowledgment that decisions around methods, sampling, and analytical techniques are not merely technical choices but are

intertwined with the researcher's theoretical and epistemological commitments (Alvesson & Sköldberg, 2009). Documenting methodological decisions along with the rationales behind them supports critical evaluation of the research process and outcomes in addition to helping establish the trustworthiness of qualitative research (Hammersley & Atkinson, 2007; Lincoln & Guba, 1985; Walsh, 2003).

Methodological reflexivity may begin with reflection on the paradigmatic orientations that inform the researcher's worldview and thereby influence the research processes and results (Olmos-Vega et al., 2023; Varpio & MacLeod, 2020; Walsh, 2003). In an example of the overlap between reflexivity domains in Walsh's (2003) framework, I viewed the exercise of detailing my philosophical stance and paradigmatic orientation as a researcher as also fitting into the realm of personal reflexivity as discussed above. Olmos-Vega et al. (2023) note that methodological reflexivity is addressed via careful descriptions of research decisions and procedures along with consideration and explanation of how and why these decisions were made. In this thesis, I provide extensive literature-based detailing and rationale in support of each major methodology selection, offering complete transparency regarding each of the methodological decisions that framed the design of the study. Olmos-Vega et al. (2023) note that reflexive writing is one of the best-known modes of reflexivity. Researching and writing up the details of and rationales for my chosen methods including GTM, case-study methods, sampling strategy, interviewing style, data analysis techniques, and more, along with delineating the limitations of those methods as appropriate, constituted extensive engagement in reflexive writing. I was immersed in focusing on the ethical aspects of employing these methods, their paradigmatic alignment with my research philosophy, fit with the practical design of the study, and capability to support the rigor and authenticity of the study (cf. Olmos-Vega et al., 2023).

Contextual reflexivity refers to locating a particular project in its cultural and historical context (Walsh 2003). Researchers should articulate their relationship with the context, how they came to know it and appreciate its nuances, and how they sought to capitalise on that knowledge in their data (Olmos-Vega et al., 2023). Contextual reflexivity also involves recognizing that research questions and their answers are always embedded in and influenced by a social context of assumptions and practices (Naidu & Sliep, 2011). The researcher should understand the intended and unintended transformative effects that research can have on the social context in which it is conducted (Smith 1994; Reid et al. 2018). Ethical research aims for positive impact on the contexts in which it takes place, and the generation of new insights from

the interactions between participants' reflections or engagement in the study, their practices, and the context (Bishop et al. 2002).

This thesis includes an extensive and detailed description of the project context within the restrictions imposed by word count limits. Many references to resources are provided for readers who wish to undertake further exploration. The research questions were explicitly oriented towards seeking useful solutions fit to the specific institutional and regional contexts with their particular assumptions and practices. I posed positive transformation of the social context as an implied objective of the research, and aimed to develop a grounded theory and model of what such a transformation might look like. To locate this project in cultural and historical context, and articulate my relationship with that context, I observe that in undertaking this study, I inevitably worked from the stance of an Indigenous researcher. Kovach (2018) notes that 'broadly, indigenous research concerns itself with Indigenous matters' (p. 384), occurs across many academic disciplines, and includes community-based, grounded theory, and decolonizing methodologies.

In line with Kovach's (2018) views of Indigenous research, I acknowledge that this study is sited in a context affected by imposed colonialism where racial, cultural, social, economic, and gendered relations of power have significant impact on people's lives and are direct causal factors of some of the phenomenon observed in this study. Along with Hamamra et al. (2021) and others, I am part of a growing effort by Indigenous Palestinian educators and researchers to decolonize Palestinian education and move it beyond restrictive and disadvantaging traditional paradigms and away from dependency on foreign aid organisations—that is, out from under the uninterrogated Western gaze as described by Kovach.

While reflexivity is widely recognized as a strength of qualitative research, it can also present challenges. Constant self-interrogation requires time and intellectual effort, investment of which may not always align with practical research constraints (Finlay, 2002). Additionally, some critics argue that reflexivity risks becoming overly self-indulgent, shifting the focus away from participants and their narratives (Pillow, 2003). Despite these disadvantages, a significant body of literature supports the importance of reflexivity for the production of high-quality outcomes from qualitative inquiry. In my opinion, reflexivity during this study was significantly enhanced by the extended processes of rethinking and replanning the project caused by the advent of the pandemic emergency, and the nearly four years spent in the analysis phase of the study. True to the GTM model as described by Glaser and Strauss (1967), Charmaz (2014), and

others, data collection, data analysis, and reference to the literature were combined in an extended series of iterations, an approach that encourages and supports researcher reflexivity (Braun & Clarke, 2012; Charmaz, 2014).

3.7 Ethical Considerations

This thesis study was carried out with the permissions and under the guidelines of the associated institutions The University and University of Nicosia, with the British Educational Research Association (BERA; 2018) publication *Ethical Guidelines for Educational Research* (4th ed.) as an additional primary source of guidance and reference. The research design and procedures were such that the probability of harm to the participants and their students was very low. The teacher participants were all highly educated professionals with many years of experience who collaborated with the researcher on a completely voluntary basis after giving fully informed consent to be included in all aspects, aims, and objectives of the research activities and reporting.

I self-educated on and adhered to all ethical standards found in the BERA handbook and kept a reference copy available at all times. I was always cognizant of my responsibility towards my co-participants' dignity, privacy, anonymity, sensitivities, and vulnerabilities as colleagues in higher education. I prioritised the maintenance of respect for our shared professional values. The relationship of trust and rapport between researcher and participants was carefully honoured, and the commitment of personal time by the participants was also respected. All collected data was kept confidential and stored securely, and the identities of the institution and participants are concealed in this research report. The research report will be available to the participants and all other interested stakeholders upon completion of the study.

3.8 Methodology Summary

The research site of this mixed-methods grounded theory case study was an HEI in Palestine during the 2020–2021 COVID-19 pandemic emergency, associated school closures, and implementation of online emergency remote teaching and learning. The researcher worked from a social constructivist epistemological stance and within the methodological frameworks of case study research (Corbin & Strauss, 2015; Merriam, 2009; Stake, 2006; Yin, 2018) and grounded theory methods (Charmaz, 2014; Glaser & Strauss, 1967).

The study was guided by five research questions designed to achieve the objective of generating an accurate snapshot of the beliefs, perceptions, and experiences of the participants

as they encountered online teaching in an emergency school closure situation. The research participants were five Palestinian ELT teachers who work in the Department of Languages at The University. The purpose of the study was to explore the beliefs, perceptions, and experiences of the participants regarding the use of e-learning in the WBU Department of Languages, and specifically their use of ERT-style online e-learning to teach their courses in fully online mode during the COVID-19 pandemic emergency cancellation of F2F classes.

The primary data strand was generated by a series of four semi-structured teacher interviews separated over nearly one year of time. Each interview was guided by an interview protocol that can be viewed in Appendix II: Teacher Interview Protocols 1–4. The teacher interview data were processed via qualitative data analysis in the form of a modified GTM-style inductive thematic analysis implemented in a standard approach as explained in qualitative research handbooks and articles by leading researchers. The works of Braun and Clarke (2006, 2012); Charmaz (2014); Corbin and Strauss (2015); Creswell (2013, 2014); Glaser and Strauss (1967); and Ryan and Bernard (2003) were particularly influential.

Chapter 4 presents the thematic structure that emerged during the qualitative thematic analysis of the teacher interview data, and details the findings of this study in terms of the beliefs, perceptions, and experiences of the five teacher participants. The findings are presented in a narrative style, with rich description enhanced by inclusion of the participants' voices in the form of quoted interview transcript outtakes.

CHAPTER 4 FINDINGS

4.0. Introduction

This chapter presents findings derived from analysis of the primary body of data collected during this study—recordings of a series of semi-structured interviews conducted with five teachers from the West Bank University ELT programme during and immediately after the 16-month-long emergency halt to F2F learning in Palestine and the associated implementation of ERT at the university. The findings take the form of conceptual themes: well-developed categories identified in qualitative data by application of thematic analysis techniques (Braun & Clarke, 2012; Braun et al., 2019; Corbin & Strauss, 2015). Corbin and Strauss (2015) describe such themes as raw components that can be further systematically individually developed and then interrelated with each other to form a theoretical framework, or grounded theory that explains some aspect of a phenomenon (cf. Charmaz, 2014; Glaser & Strauss, 1967).

In the current study, the thematic material tended to evidence disruption, challenge, and uncertainty as the dominant effects and impacts associated with the pandemic-driven emergency adoption of e-learning at WBU. The literature of the period indicates the situation at the research site to be similar to the pandemic ERT experience across most of Palestine's education system at every level and at many MENA regional HEIs (cf. Jawabreh, 2020; Moghli & Shuayb, 2020; Obaid et al., 2020; Shraim & Crompton, 2020; Tafazoli, 2021 a, b). In Palestine, as in other locales, the pandemic emergency was the proximal cause of general disruption and hardship in education and many other areas of daily life. However, Palestine is a developing country on the wrong side of the digital divide, and to properly contextualise the findings presented in this section, it should be recognised that many of the effects on e-learning experienced by the participants in this study did not necessarily arise out of pandemic conditions but were instead caused or at least exacerbated by the types of obstacles to the adoption of online e-learning identified in the literature (cf. Bhuasiri et al., 2012; Kim & Park, 2018; Qashou, 2022) as typical for developing countries: economic, political, technical, and pedagogical.

4.1. Emergent Thematic Structure

Initial data analysis for this study uncovered instances where each of the participants acknowledged the value and necessity of online distance education given the emergency conditions existing at the time. At one point or another, they also each made positive comments concerning the future role of technology and e-learning in education. Nonetheless, an

undercurrent of uncertainty about the utility and benefits of the University's version of ERT e-learning was evident from the earliest readings of the data.

Uncertainty was particularly apparent in the initial stages of the e-learning experiment. This is not surprising given the conditions surrounding the transition to e-learning. Foreman-Brown et al. (2023) describe the pandemic emergency and ERT as bringing 'unprecedented additional uncertainty and vulnerability to an already highly complex context [teaching]' (p. 2). Bacova and Turner (2023) found the situation impacted teachers' professional identities and heightened their sense of vulnerability. However, in the present study, the participants' varying perceptions of the ERT e-learning experience, along with emerging questions around the effectiveness of the ERT programme and the future of online learning and technology use at WBU, indicated that uncertainty was still present when the period of school closures/ERT had ended and F2F study was about to be reconvened. Therefore, uncertainty was tentatively accepted as a defining or overarching theme present in the data.

As revealed in the data, daily practical engagement with the ERT e-learning model surfaced specific factors or issues that appeared to sustain or in some cases increase the participants' feelings of uncertainty about the new practice in which they were forcibly immersed. Some of these contributory factors were common to all participants; in other cases, they differed according to individual teachers' practical situations, personal preferences, and past experiences. The iterative application of inductive analysis and thematic categorisation procedures (as in the methodology outlined by Ayres, 2008; Braun & Clarke, 2012; Braun et al., 2019; Corbin & Strauss, 2015; Guest et al., 2012 and others) enabled the identification of four factors that emerged as cross-cutting the data to represent meta-causes of participant uncertainty—phenomena that affected all teachers in common. These factors were recognised as subtheme category heads. Further refinement and categorisation work isolated elements that linked as contributory factors to the subtheme heads, leading to the development of subtheme strands.

When fleshed out and interconnected, the four subtheme strands provided support for the ultimate acceptance of an overarching theme characterised here as participant uncertainty about the utility and effectiveness of e-learning as experienced during ERT as situated in these particular cultural and institutional contexts. The complete emergent thematic structure is represented in Figure 4.1. After presentation and discussion of the overarching theme immediately below (Section 4.2: Uncertainty About E-Learning), this chapter continues with

sections dedicated to exploration of the four sub-theme strands—Challenging Transition, Labour-Intensive Teaching, Inadequate Infrastructure, and Classroom Impact—along with their associated contributory factors.

Figure 4.1: *Emergent Thematic Structure*
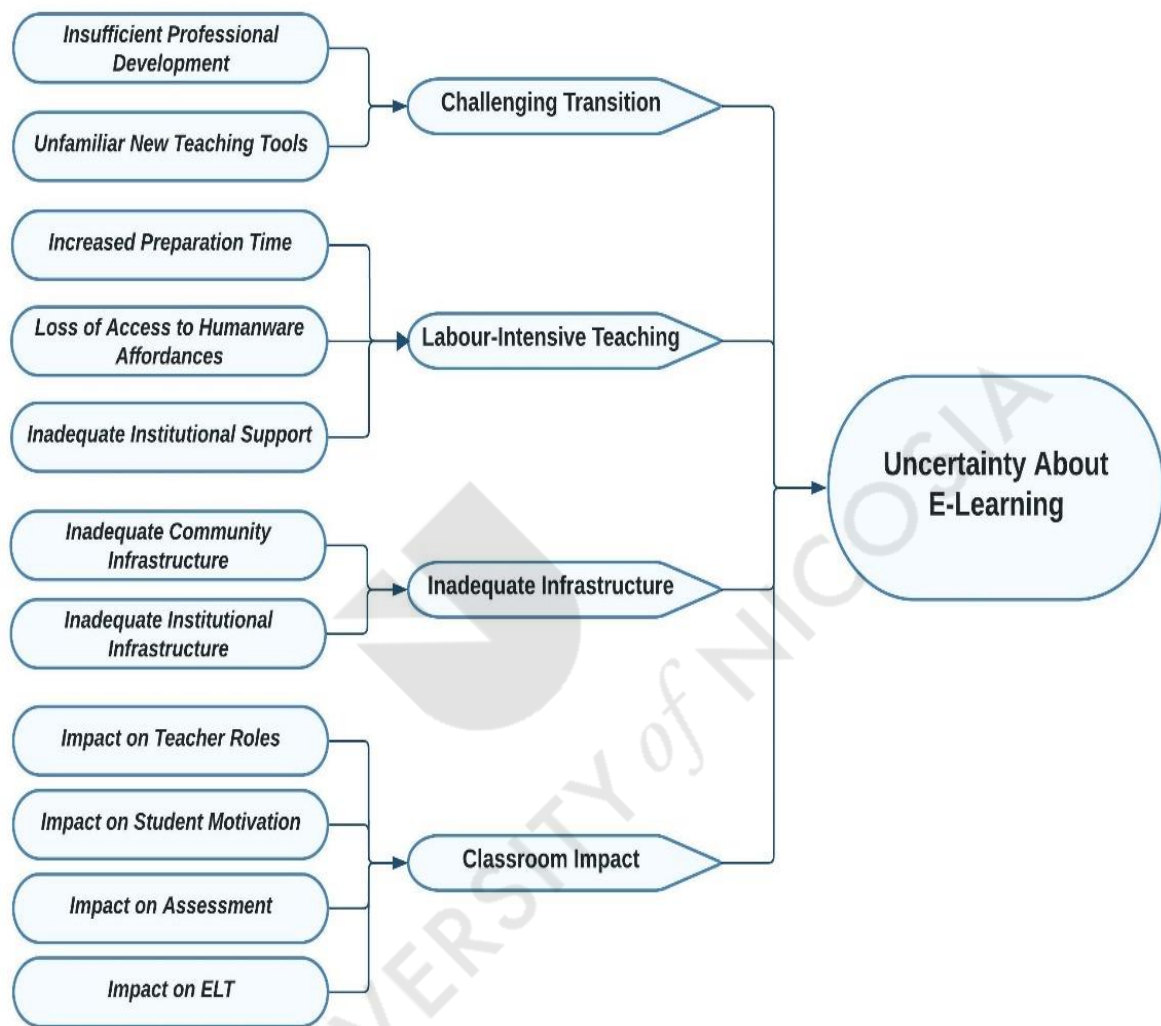
Each of the primary conceptual themes emergent in this study along with their contributory factors are supported with rich description and nuance in the form of participant voices captured in direct quotes drawn from the teacher interview data. These data extracts are presented in italics and identified by numeric codes used to anonymously identify the teacher participants (T1–T5) along with the number of the interview from which the quoted extract was sourced (I1–I4). Contextualisation is important when analysing the findings of qualitative case studies (Baxter & Jack, 2008), and this is provided by framing and correlation with relevant literature along with extended discussion and explanation as appropriate to each theme

presented. When appropriate to the discussion and feasible without excessive intrusion into the narrative, example interview questions are given and identified by interview and item number. For reference to the complete set of interview protocols, see Appendix II: Teacher Interview Protocols 1–4.

4.2 Overarching Theme: Uncertainty About E-Learning

You can never guess what's going on there, on the other side in the students (T5, I1). During analysis of the interview data collected for the present study, evidence emerged to support a single overarching theme: the West Bank University ELT teachers who participated in this study, whether previously experienced or completely inexperienced with online learning, were to varying degrees uncertain about the effectiveness and utility of the ERT e-learning model they were engaged in delivering. This interpretation is supported by reports of the parallel experiences of many other HEI teachers (cf. Bacova & Turner, 2023; Foreman-Brown et al., 2023; Moore et al., 2021) as documented in the literature of the period reviewed in Chapter 2 of this study.

Uncertainty was arguably the predominant human state at a time when a global pandemic and the responses to it were driving often chaotic changes in many aspects of our lives and instilling fears of many types and on many levels (Al-Maroof et al., 2020). The situation was unprecedented and bound to colour all aspects of life, including professional practice, to some extent. It is not surprising to see that research carried out during the pandemic indicates that uncertainty dominated the experiences of teachers (and students) around the world as millions of them were abruptly pushed online by the emergency school closures (cf. Al-Maroof et al., 2020; Ferri et al., 2020; Hartshorn & McMurry, 2020). Many large-scale meta-factors were present to create uncertainty in teachers where they lived and worked. Teaching is an inherently uncertain field (Helsing, 2007), and confidence and certainty were not enhanced by the sudden, forced widespread change in long-standing education models and methods to an explicitly temporary and ad hoc distance education model intended only to compensate for students' inability to attend school in person under the emergency conditions (Hodges et al., 2020). The poorly-defined or completely undefined endpoint for school closures and unclear vision of what the return to normalcy might entail (if there was a return) were textbook examples of uncertainty triggers.

As was the case at WBU, the emergency online distance education programmes at many HEIs round the world were tangles of measures thrown together and implemented with make-shift tools by untrained teachers amidst an atmosphere of confusion, indecisiveness, and lack of preparation on the part of education administrators at the governmental and institutional levels (Bacova & Turner, 2023; Hodges et al., 2020). *So this fear, or this lack of confidence comes from the point that I am unfamiliar with online apps* (T2, I1). However, the literature reveals that even institutions with operating online education programmes and experienced e-learning instructors were severely disrupted by the turn to ERT (Bozkurt & Sharma, 2020; Hodges et al., 2020; Milman, 2020). For many teachers who view teaching as an orderly process carried out in settings marked by social interaction, jumping into teaching with a lack of prepared and positioned online education delivery tools, methodological approaches, curricula, and materials, then working through day after day with limited or no contact with colleagues and students was a combination guaranteed to induce uncertainty and support it on a long-term basis. *You don't know what the students are doing while you are giving the lecture, whether they are attentive, they are listening to you, they are understanding what you are saying* (T4, I2).

In wealthy countries, where the use of learning management systems is now universal at HEIs and much of academic life is carried out online, institutions might switch from blended learning to working fully online with relative ease during any emergency and still maintain programmes of reasonable coherence and quality. Even if some programmes and courses are not already completely or properly designed for fully online distance education, there is at least a basic structure of useful planning, preparation, and practice in place to support a transition to fully online ERT work. The transition online still caused much stress and uncertainty (Judd et al., 2020; Marinoni et al., 2020), but most teachers in these privileged settings had at least some degree of familiarity and confidence with the concepts of online e-learning and the technologies used to implement this teaching/learning delivery model. In contrast, the literature shows that many HEIs in developing countries launched pandemic ERT as online education in its roughest form, with none of the planning, preparation, and ongoing development work that many experts in the field describe as essential to the provision of effective online distance education (i.e. Baldwin et al., 2018; Bozkurt & Sharma, 2020; Carrillo & Flores, 2020; Hodges et al., 2020). Such conditions inevitably amplified the shock and uncertainty associated with the emergency transition to ERT.

This was the case at WBU, where there was very little appropriately oriented technological, methodological, pedagogical, or curricular infrastructure in place prior to the launch of the university's ERT programme. E-learning design ideals were not even a matter of discussion, much less realised in any fashion. The University was not unique in this shortfall; long before the pandemic, researchers in Palestine had noted the uneven blend of challenge and opportunity characterising efforts to implement e-learning in local HEIs (Affouneh & Raba, 2017; Mikki & Jondi, 2010; Shraim, 2012). As can be surmised from information provided in Chapter 1 and elsewhere in this study, conditions for teaching and learning at Palestinian HEIs are less than optimal even in the best of times. During the COVID pandemic, local scholars (Affouneh et al., 2021; Karsh, 2021) and writers in regional education periodicals (Jawabreh, 2020) characterised the situation as yet one more emergency and a source of further instability and uncertainty for education systems in conflict-torn Palestine.

The EFL teachers in this study endured the challenges of suddenly transitioning to online distance education delivery while undergoing a lived experience comparable to that described by Al-Maroof et al. (2020): pandemic-related factors caused teachers' and students' daily lives to be marked by unstable, frequently shifting conditions affecting home and work routines, a variety of threats (e.g. danger to health, legal sanctions for attempting to carry on normal activities, loss of livelihood, disruption of studies) to themselves and loved ones, and generally enhanced levels of fear. Set against this background, the data collection and thematic data analysis procedures of this qualitative case study served to reveal further sources of uncertainty that were specific to the participants' professional set and setting as they moved into and worked through an unprecedented period in their professional lives.

4.2.1 Subtheme: Challenging Transition

It is not surprising that the teachers in this study viewed the sudden shift to online instruction under the conditions of pandemic ERT as challenging. As previously noted, turning from F2F classrooms with very little technology in use to complete reliance on e-learning represented an abrupt, significant change for the teachers who participated in this study. *I think shifting from face to face to online learning, it was not an easy experience for us at the University because the majority of teachers are not accustomed to an online mode of teaching* (T2, I4). Pandemic-era research reports and other literature commonly describe teachers, particularly those with no experience in online teaching, as finding the initial move online challenging and difficult

(Hartshorn & McMurry, 2020; Tafazoli, 2021b). *We have started using the online courses in the middle of the semester and that was a huge confusion for me at least and of course, I think most of us have been confused* (T5, I2).

For T5 some of the other participants in this study (T1 & T4), the ERT experience marked their first venture into online e-learning and a major turning point in their practices, which until the advent of the pandemic emergency had included little to no integration of digital technology. *I think when I am using technology or using the computer, I found a lot of problems and at first a lot of difficulties* (T1, I2). There was little to no possibility for preparation at any level, institutional or personal, and even highly experienced online teachers were taken aback by the sudden immersion in an unfamiliar system. *At the beginning, and even these days* [16 months later]*, we face big challenges and we face problems* (T2, I4).

In addition, with Palestine being a developing country, the challenges inherent to the context served to amplify the difficulties of the transition. *I think I must speak about myself. I have some problems with the speed of the Internet and those who provide the Internet service or supply the Internet* (T4, I1). The potential for sub-standard infrastructure to represent an obstacle to effective e-learning and online education programmes has been well-documented in this research and throughout the literature on e-learning in developing countries (cf. Bashitialshaaer, Alhendawi, & Avery, 2021; Kebritchi et al., 2017; Nambiar, 2020; Tafazoli, 2021a, b). In the case of Palestine, effects including extended power outages and unusably slow internet speeds are reported in several studies conducted in the region (Bashitialshaaer, Alhendawi, & Avery, 2021; Moghli & Shuayb, 2020). *So, the major problem is the technical issues, like sometimes the Internet is getting off, sometimes some students don't have internet, due maybe to financial problems* (T3, I2).

Compounding the overall challenge of the situation was the fact that, at WBU, as at most other HEIs across the region, the launch of ERT e-learning, a sweeping and drastic innovation, was not accompanied by any organised change management strategy. Such a move represents a truly momentous change. Lund and Aagaard (2020) note that digitalisation can transform or challenge epistemic practices to varying degrees; this principle underlies the concept of digital literacies (Lankshear & Knobel, 2006). 'An epistemological perspective on digital literacies requires that we rethink how we gain knowledge and by what means. Thus, digital literacies have come to equal a set of social practices that involve meaning-making' (Lund & Aagaard, 2020, p. 57). Adapting to this requires dealing with change in the world, in our concept of

knowledge, and in our perception of ourselves as knowers (Aagaard & Lund, 2020; Lankshear & Knobel, 2006).

In addition to this, the change model implemented under the emergency lockdown conditions was of the power-coercive type identified by Lamie (2005) as most likely to engender negative reactions, sub-optimal outcomes, and low levels of commitment to real transformation.

Yeah, well, let's talk simply, I'm dealing with this situation as it is temporary so I'm not focusing that much in developing my skills, I'm just dealing with it as it is something that will go. We will get rid of this, and we are going back to face to face teaching and learning, so I was not seriously focusing that much on developing my skills (T5, I4).

Disadvantageous under any conditions, this power-coercive change process caused all teachers inconvenience and discomfort, while demanding of some teachers' transformation at the epistemological level. It was carried out with a complete lack of planning and management at a time when teachers' lived experiences were already marked by heightened uncertainty and fear. The entire situation generated bias towards the presentation of difficulty and the production of negative reactions and sub-optimal outcomes.

The participants in this study clearly found the transition from F2F teaching to an online ERT regime to be a challenge regardless of their individual teaching situations and past experiences with technology and online e-learning. The following sections describe two specific common factors that emerged as directly contributing to the challenge these five teachers faced in the transition to ERT at WBU. Insufficient professional development/lack of teacher preparation were instrumental in enhancing the difficulty of the transition. A closely-related aggravating factor, alluded to above by T2,—*the majority of teachers are not accustomed to an online mode of teaching*—was the necessity of adopting a set of new and unfamiliar teaching tools.

4.2.1.1 Insufficient Professional Development

Lack of preparation for participation in a fully-online teaching programme was one driver of teacher uncertainty about the pandemic online ERT model at WBU. This conclusion is supported by the data in this study and by evidence in the body of research into pandemic-era teacher experiences (cf. Hartshorn & McMurry, 2020; Tafazoli, 2021a, b; Todd, 2020). Even the two teachers (T2 & T3) in the present study who had extensive prior experience with online e-learning at other universities were not ready to immediately shift their F2F courses and entire

practices online with only a few days' notice and little previous exposure to the web-based platforms they were expected to use.

It is well-established that teachers need specialised knowledge and proficiencies to deliver effective online education (Koehler & Mishra, 2009). Regarding the teachers in the present study and the topic of professional development or preparation for online teaching, the only evidence in the data of participation in relevant training activities came from the three teachers who had various experiences with e-learning in previous positions. Given this absence of recent documentable evidence of engagement in applicable professional development activities, for the purposes of the present study, teacher self-efficacy was accepted as an indicator of preparation for online teaching. E-learning system users' views of the own self-efficacy, or computer self-efficacy (CSE) as per Kim and Park (2018), are one of the determinants of teacher intention and willingness to use e-learning, and are a factor in the success of e-learning programmes (Almaiah et al., 2020; Baroudi & Shaya, 2022; Doğru, 2020). Teacher self-efficacy was explored directly early in the interview series. At this point, the teachers were in their first full, regularly-scheduled semester of the ERT regime:

> *We have been using the Google Meet, this is our third semester, but we have started in the half of the first semester* [March, 2020]*...maybe in the summer course more confident, and actually let's say that maybe this is the first semester we started at the regular time and knowing exactly what we are doing* (T5, I1).

Each teacher was presented with the following query in Interview 1>Question 2: *To what degree you feel confident using the Internet in your teaching?*

T2 and T3, with years of experience teaching online, both answered as expected along these lines:

> *Yes, I'm very confident of myself of teaching online because you know that you and I, we have taken a course like 20th century or 21st century schools, and we have got enough experience about dealing with Zoom application or platform and Google Meet and other apps* (T3, I1).

Trained and experienced in technology-enhanced F2F teaching but not in fully-online e-learning, T4 expressed a similar view: *I had some experience in using e-learning resources. I used different resources because I was a trainer of teachers at the ministry of education, so I'm confident when I use e-learning in my classes* (T4, I1). Notably, completely inexperienced participants T1 and T5 also expressed confidence: *I think with a great degree, maybe the*

ultimate degree…Surely, I think that I am confident in using e-learning, yes I think I am competent when I use e-learning (T1, I1). *Well, for me, the methodologies are the same in teaching but the difference is the path or the strategies. To me, I have my way, so my confidence is high* (T5, I1). Yet these same two teachers later described struggles that evidenced poor development of basic digital literacy skills—*Maybe I asked my friends and my relatives about some problems relating to computer skills and such* (T1, I2)—and, in T5's case, complete dissatisfaction with online teaching even after more than a year of experience: *Honestly, honestly, I hate it. I hate it* (T5, I4).

Falling within the thematic category of teacher technical preparation/professional development, these findings motivated more detailed exploration of teacher CSE. Drawing on the TPACK framework—technology, pedagogy, and content knowledge—developed by Koehler and Mishra (2009) around core skill areas proposed by them as 'critical to effective teaching with technology' (p. 60), I conducted an informal, subjective examination of the teacher interview transcript data by means of a modified TPACK readiness evaluation strategy inspired by methodology discussed in Koehler et al. (2004). With the objective of investigating teachers' development of an understanding of the interplay between content, pedagogy, and technology during a learning-by-design approach, Koehler et al. (2004) analysed discourse data collected during meetings of participants in a Master's-level educational technology course. Class groups were assigned to develop a course for an online Master's programme in educational technology. The researchers recorded discourse episodes during the group work sessions; this data was coded and categorised by topic: technology (T), pedagogy (P), and content (C), and frequency of occurrence was calculated for each type.

I conducted a similar content analysis with data from teacher Interview 1, conducted when participants were still relatively new to the ERT programme. I used methodology that varied from Koehler et al. (2004) in several aspects. Instead of doing a simple frequency count of mentions in each category T, P, and C, I assigned a plus or minus score to each mention according to whether it was a positive or negative reference or implication, i.e. whether the participant was indicating a positive or confident view of their own knowledge or a contrasting negative or uncertain view. I also added the category of online e-learning in general. Pure frequency of mention was of limited relevance because many references were directed externally, as in discussing institutional technology, or the availability of content, and so forth. Therefore, I counted only instances of self-reference or reflection. There were also instances

where an experienced e-learning teacher remarked on their need for further training, or a lack of experience or practice with a particular tool or technique, for example. I recognised such cases as informed self-reflection and recorded them as pluses. Note here that I acknowledge my possible bias in the form of unconsciously holding the experienced e-learning teachers to a higher standard than the online beginners.

The final participant scores represented the primary objective of the analysis: an impression of the participants' possession of (or at least general positioning in regard to) the knowledge needed to be an effective online teacher. Secondary objectives of this mini-analysis included supporting an in-depth focus on and familiarity with the participants' skillsets as viewed through Koehler and Mishra's (2009) TPACK lens, and increasing my overall familiarity with the body of data. The results of this mini-analysis (see Table 4.1) were not surprising: T2 and T3, with 15 and 10 years of online teaching experience respectively, and apparently versed in the associated literature, both earned multiple plus ratings. Even if self-reference was rare, as in the case of T3, the veteran online teachers discussed topics of technology and online education from a standpoint of in-depth knowledge. However, even though T2 discoursed eruditely on e-learning, he received a minus in Technology due to a struggle with GBRs after forgoing an invitation for assistance from the researcher: *Frankly speaking, I did not know how to break out my room* (T2, I1). Another Technology minus came for *Sometimes I'm afraid of trying some of those apps which are uploaded every day on YouTube, and that my friends like you talk about* (T2, I1). In other cases, pluses were awarded to T2 (and T3) for mentioning the usefulness of tools and application beyond the Google ecosystem being implemented for ERT at The University.

Table 4.1: *Participant TPACK Mini-Analysis Scores*

Teacher	Technology	Pedagogy	Content	Online E-Learning
T1	− −	− − − − + +	+ + + +	+ + + + + + +
T2	+ + + + + + − −	+ + + + + + + −	+ + +	+ (15 yrs. Exp.)
T3	+ + +	+ +	+	+ (10 yrs. Exp.)
T4	+	+	+	+ + + + +
T5	+ + −	+ + + − −	+	−

I also recorded one minus in Pedagogy for T2: *The other problem, or challenge, is the domain of social interaction. Sometimes I felt afraid of feelings I have created from my students*

in a way or another (T2, I1). Balancing this were pluses for a number of references to current literature and his own articles in preparation. For example, a plus in Pedagogy for: *Nowadays I'm preparing an original article about student level of engagement in e-lecturing* (T2, I1). While T2 spoke at length and in detail, T3 and T4 tended to be more concise and focused on student experiences and other externalities, leading to fewer scorable mentions, but both demonstrated confidence and competence. *I am very happy and very optimistic that we have taken our decision to develop online teaching and do this kind of approach* (T3, I1). *Now, since we are living in the age of technology, and we have used the Internet in teaching, I think we are moving forward and applying the Internet resources in teaching language* (T4, I1).

T1 and T5, beginner online teachers and light technology users in general, received a number of minus ratings. *I have to be honest, before online teaching, I might say that I will see me as illiterate in online methods* (T5, I4). Mentions of difficulties controlling students in class, preventing cheating, and challenges with communicating online garnered them minuses in the Pedagogy category. *Behind the screens, you cannot evaluate there* (T5, I4). Conversely, even though there were no mentions of literature or research on the topic as found in T2's discourse, both of the beginners earned balancing pluses in the Pedagogy category for mentions of the value of interactivity, discussions, student autonomy, and collaborative work. *You can teach the students in a good way that is autonomous learning. Sometimes it is very necessary that the students do group work, team work I mean* (T1, I1). Both beginners also earned pluses in the Content category for mentions of the value of the online environment for locating useful, high-quality materials.

The overall impression left by the TPACK mini-analysis was consistent with findings uncovered in the body of data as a whole. These five teachers, even those with past experience or training that to some extent prepared them to handle the ERT conditions, were not ready for complete reliance on distance e-learning. The experienced teachers were not accustomed to the web-based platforms being used, were not permitted or able to access and use other tools with which they were more familiar, and suffered from a lack of preparation, particularly in the areas of online curriculum and course content development. The two beginners T1 and T5 had no preparation whatsoever and often struggled even though T1 evinced commendable enthusiasm for teaching online.

As elaborated above, teacher self-efficacy is a key to successful integration of digital technology into practice (Wozney et al., 2006). Teachers must be confident in virtual classroom

spaces in order to be effective there, and teacher perceptions of their own competencies related to digital teaching are linked to the technical and training resources available at their schools (Huber & Helm, 2020). The already very capable online teacher T2 acknowledged the value of ongoing professional training regimes provided at the institutional level: *I feel somewhat confident, I need some trainings here and there, precisely speaking when using the different applications or different LMSs such as Edmodo and so on. I need more training, I need more professional development in service* (T2, I1). Fluent in the in-class use of technology, T4 noted the troublesome gap caused by a lack of online-specific training: *We are not accustomed to this system of teaching previously. And most of the teachers did not take sessions or training courses* (T4, I2).

It is not controversial to observe that training aimed at preparing teachers to deploy online pedagogies must include and ideally be preceded by adequate ICT/technical skills development (Alexander, 2012). Digitally-literate teachers then need specialised knowledge and proficiencies to deliver effective online education (Koehler & Mishra, 2009; Philip et al., 2019). T5, I4: *We need experts. Actually, we need experts to guide us how to improve our skills and using technology in teaching. As it is, it is a big challenge.* Investigations at HEIs around the world have shown that teachers were most often not adequately prepared for the challenges presented by the implementation of pandemic ERT (Carrillo & Flores, 2020; Tafazoli, 2021b; UNESCO-IESALC, 2020). Likewise, the findings of this study show five university instructors similarly unprepared to easily take on the challenge of implementing an entirely online pedagogy.

4.2.1.2 Unfamiliar New Teaching Tools

Another emergent data strand contributing to the *Challenging Transition* theme concerned the use of online e-learning delivery tools. As previously defined for the purposes of this thesis, e-learning is the use of various networked platforms and tools by teachers and students to deliver and access course content. As part of this process, asynchronous and synchronous interaction between teachers, students, and content must be supported in order to recreate in virtual space something approaching the F2F classroom experience (Cochran & Benuto, 2016; McDaniels et al., 2016; Xu & Xu, 2019).

In Chapter 1, I explained that a technology development initiative was just getting under way at WBU when the pandemic emergency struck Palestine and F2F instruction was halted.

The technology initiative was also interrupted before any LMS or other institutional e-learning infrastructure could be put in place, so for the duration of the pandemic emergency and the period covered by this research project, Google Classroom was designated as the application that would serve asynchronous functions as an LMS-type platform for document handling, broadcast messaging, and various other administrative tasks, while Google Meet was to be used to create virtual classroom spaces for synchronous interactions.

Rapidly deploying these web-based applications presented challenges even for seasoned online instructors. *We were not accustomed to using applications such as Google Classroom and Google Meet. Personally, I did not understand what those applications were and how I could implement them effectively in my e-courses* (T2, I2). Moreover, the teachers in this study, even those who may have preferred and been able to leverage other options, were confined to the use of GC and GM as a foundation for building their online courses:

> *In terms of technology, there are so many things like Zoom and Moodle and some others. Actually, we are not free to go with anything that is in front of us because the university itself can select for you which platform that you have to go to and practise with your students. So, it is not a matter of choice as a teacher, but it is a matter of what we receive from the university* (T3, I4).

As experienced online teachers, T2 and T3 were clearly aware of alternatives and capable of considering options in terms of online learning delivery applications, and may have benefited if permitted to implement their own choices.

Inexperienced online teachers expect more challenges, perceive more obstacles, and are less sure about choosing activity and communication channels for their online classes (Bailey & Lee, 2020; Parson et al., 2017). Directed to use GC and GM as delivery technologies, the new online teachers (T1, T4, T5) had little to no idea about what these tools were capable of doing and what they should do with them in the virtual classroom. *Recently we have used Google Meet and Google Classroom and we are newly using this methodology in teaching so I think this is our baby steps towards using technology in teaching in general* (T5, I1). The lack of a pre-positioned delivery framework and resource base left these inexperienced online teachers uncertain about identifying pedagogical, methodological, and technological options available, making choices among these, and effectively implementing any chosen options.

One strand of the interview data collection effort was aimed at exploring the participants' subjective impressions of the utility and effectiveness of these platforms and gathering

information about any other online tools they may have employed. When asked for their impressions of GC and GM as e-learning platforms, the new online teachers were not positioned to either give nuanced reviews of the Google platforms or comment knowledgably on other options. *I don't have any idea about other programs so I found this program is best for me* (T1, I2). T5 expressed a similar stance: *To be honest, I can't judge* [the Google platforms] *since I have never used any other platform. I can say it's not bad. It's okay* (T5, I2). T1 did venture to comment on GC and GM regarding their lack of utility for use during assessments:

> *Yes, maybe we need to develop some technical branches here or there because we need more sophisticated techniques in teaching. It is not enough I think, Google Meet and Google Classroom, because in the exam, maybe, it is very difficult to apply them to control the students inside the classroom* (T1, I1).

As in previous research focused on similar situations (cf. Bailey & Lee, 2020), the contrast between the experienced and inexperienced online teachers was evident when evaluating e-learning applications. T2 was able to provide an informed critique of GC that highlighted the platform's lack of support for interactivity and implied a degree of uncertainty regarding the effectiveness of e-learning as conducted via GC: *Google Classroom is not highly interactive, compared with platforms such as Moodle that is used at Al-Quds Open University and in the Turkish University we visited a year or so ago* (T2, I1). T3 was familiar with benefits and possibilities offered by GM in terms of what the application could do, and pointed out certain affordances and strategies that might effectively support learning:

> *Through this Google Meet, you don't feel that you are away from your students or there is some gap between you and the students. And you can show some PowerPoints and materials, you can give tests, you can give some quizzes and this is what your students require* (T3, I1).

Links on the University ICT Department e-learning resource page encouraged teachers to expand their online tool boxes to include other applications they might find useful to go along with the GC and GM platforms. It was not surprising to find the experienced online teachers confident in this area. T3 mentioned another central resource that offered a variety of options: *There are so many applications. Actually, we can use the British Council website* (T3, I2). T2 listed specific well-known applications: *I recommend the use of the Edpuzzle application, Quizlet application, Kahoot—those are the most famous applications we can implement in teaching the language* (T2, I2). In contrast, the initial tendency of the new online teachers was

to feel restrained by inexperience from any exploration beyond the basic boundaries of GC, GM, and email. *I have never used any other applications or other platforms…So I don't have any idea about others only Google meet and Google classroom* (T5, I2).

Breakout rooms, a software feature common to Google Meet, Microsoft Teams, Zoom, and similar video conferencing platforms, allow a meeting host or moderator to separate attendees into smaller independent working groups, each with their own virtual space. In the model of enforced power-coercive change that was operating in the adoption of ERT and the Google Platforms, the prospect of implementing a GBR was perhaps the only site where classic models of teacher resistance to technology use appeared in this study. T5, I2:

> *I got an email from you suggesting us to use this breakout rooms. But in that time, I didn't think that I really need to use it in that time or in this time actually. So no, I didn't use them. I'm fine with using the original one* [GM].

There was initial resistance, possibly because experienced and inexperienced teachers alike were overloaded with adapting to the demands of moving online, and the inexperienced in particular were struggling to master the basic tool set:

> *We have been using the Google Meet, this is our third semester, but we have started in the half of the first semester, not all the semester. It was urgent, emergency situation, the problem that we were, all of us were nervous, lost* (T5, I1).

As time went on, the new teachers gained experience and facility, while the veteran online teachers acclimated to their new and different workload. The first shock of the transition to e-learning dissipated, and the teachers appeared more willing to explore new e-learning applications.

Consistent with the Technology Acceptance Model (Davis, 1980, 1987) and theories about teacher development of technology self-efficacy (Lemon & Garvis, 2015), with time, exposure, and experience, the teachers' PEU and PU moved in a favourable direction appertaining to the use of new software tools in addition to GC and GM. It appears that, as per Kiely (2001), T1 and T5 moved through a resistance-reflection-innovation cycle of technology adoption to eventually trial GBR, after which they proceeded to express positive impressions. Note the change in T5 from Interview 2 to Interview 4 seven months later: T5, I2: *I'm fine with using the original one* [GM]. T5, I4: *It* [GBR] *was very useful. The students were all acting and they were all interactive, and they all participated in the activities that I provided during that class*. T5 noted the breakout room feature as particularly useful for activities around teaching

syntax and grammar: *I tend to use activities that are related to structures and grammars* (T5, I4).

T1 also demonstrated an interesting move to innovation over the same time frame: *You know, I don't use it* [GBR] *just because we have maybe 15 students inside the class so you don't need to use rooms in the Google Classroom* (T1, I2). During Interview 4, T1 was effusive in praise of GBR, and had leveraged some of the benefits noted in the research on BR technology:

> *If you have smaller groups, I think breakout rooms are very important, it is vital and helps the teacher a lot. You can give the students exercises, quizzes, a lot of things. So, sometimes I use breakout rooms, it is a new method of online teaching and helps the teacher find the students and all of them take part in social interaction when they solve problems or when they solve exercises. So, I think it is very vital and important. It is necessary.*

T1's experiences meshed with research findings suggesting that breakout rooms support student interaction and collaborative problem solving (Cavinato et al., 2021; Chandler, 2016; Wachenheim et al., 2023). That said, later in the same interview T1 qualified support for GBR and indirectly indicated uncertainty about the effectiveness of e-learning by asserting that F2F work was still preferable:

> *In general, I think that with breakout rooms, you can monitor the students' work and interact with them. Both are good, but I think that face to face is more chance to control the class and help the students more than breakout rooms* (T1, I4).

This reflects Krajka's (2021) observation that teachers, especially those new to the virtual classroom, may fear losing control over students in the smaller rooms/groups. As will be discussed later, this matter of uncertainty about the ability to control the class/students during online instruction was an idea that appeared frequently in the data from the new online teachers. Research by Savvidou and Alexander (2022) revealed that students themselves had concerns about group dynamics that might develop when a teacher is not present to monitor and structure BR activities and interactions.

The experienced online teachers were quicker to attempt implementation of GBRs. T3 commented on a successful experience:

> *Breakout rooms are good…I can move from one classroom to another classroom seeing what everyone is doing in this group and that group and if there is some kind of assistance needed, I give and observe as if in a real face to face classroom* (T3, I2).

T2 perceived the advantages of GBRs and attempted to use them but ran into difficulties:

I love this environment. I love to see my students highly motivated, interactive, communicative in speaking about what they have already learned, precisely speaking in English 101 as criminology or forensics major students. But unfortunately, I was unlucky to proceed due to technical problems, not the technique itself (T2, I2).

As an aside that might shed light on T2's problems with GBRs and also reveal much about the obstacles online teachers in Palestine face when trying to innovate, note the following exchange during Interview 3 when the Zoom connection between the researcher and interviewee T2 faltered: Researcher: *I can't hear you very well*. T2: *Why? Is there a problem with the mic or…*? Researcher: *I know…I think you have slow internet connection*. T2: *On the contrary. The Internet is 16* [MHz]. *Instead of 8, I upgraded it to 16.*

As in Bailey and Lee (2020), the experienced teachers were more aware of the various possibilities that available online tools offered for meeting the challenges of rapidly transitioning online. They were also more willing to try a variety of new tools. The teachers' responses also can be seen to once again conform to Davis's (1980, 1987) TAM paradigm. T2 and T3, already experienced with a variety of online tools, indirectly and directly acknowledge their perceptions of the ease of use and usefulness of GBR and other tools. T1 and T5 are initially uncertain about the usefulness of GBR. Later, more accustomed to teaching online and with PEU barriers diminishing, T1 and T5 both perceive GBR to be quite useful, and other than the concerns about lack of control expressed by T5, they give no indication of the ambivalence about BRs that is discussed in some studies (cf. Lee, A. R., 2021; Savvidou & Alexander, 2022; Wachenheim et al., 2023).

4.2.2 Subtheme: Labour-Intensive Teaching

All participants in the current project echoed findings from DeGagne and Walters' (2010) study of the lived experiences of online educators by referring at one point or another to increased workloads, primarily due to more time spent in preparation, with more challenging teaching conditions as a secondary factor. This finding aligned with much previous research that examined teacher perceptions of the workload associated with online teaching in general (Allen & Seaman, 2010; Chiasson et al., 2015; DeGagne & Walters, 2009) and the shift to pandemic ERT in particular (Clarin & Baluyos, 2022; Hartshorn & McMurry, 2020; Qashou, 2022; Tafazoli, 2021b; Todd, 2020). The possession of positive F2F teacher traits or work habits, for

example good time management skills and organisational capabilities, can help ease the workload of teaching online (DeGagne & Walters, 2010). However, without prepared content and well-honed technical skills, even the most proficient F2F teachers will be spending excessive time and effort if required to move their F2F courses and practices online.

> *And the preparation takes more time in e-learning. As long as I use the computers, typing takes time, and the usage of programmes such as PowerPoint and Word, well, let me admit or confess that I have a long time since the last time I've used PowerPoint, so I have to refresh my memory through using the PowerPoint, and I'm still refreshing it and that takes time* (T5, I2).

Learning the technology and moving F2F materials to an online course site takes a significant amount of time (Chiasson et al., 2015). As the section below illustrates, the case of WBU demonstrates what can happen when a programme that has relied primarily on F2F instruction suddenly moves online without adequate planning and preparation. Even very experienced classroom teachers who also have training and experience in online instruction can be forced to invest more than usual amounts of time and work in delivering their courses. In the present study, three subthemes emerged from the teacher interview data as dominant drivers of participant perceptions of online instruction being more time- and labour-intensive than their traditional practices: increased time spent in preparatory activities, loss of access to humanware affordances, and inadequate institutional support.

4.2.2.1 Increased Preparation Time

Teaching online forced the WBU instructors to spend more time than they were accustomed to on class preparation activities. Two primary causes for this emerged: the work required to move their F2F courses online in the absence of preplanning and materials preparation and the need to design lesson plans and activities that would create effective and engaging online learning experiences for their students. Even with the same courses and course load, preparing materials for online use and redesigning class sessions and activities to support interactivity in the virtual classroom can magnify a teacher's perceived workload by a factor of two or three (DeGagne & Walters, 2010).

Obaid et al. (2020) discovered that it is common for Palestinian universities to have limited inventories of material designed specifically for online use. At The University, teachers in the ELT department had no access to any inventory of ready-made online course content, and

the transition to ERT was for the most part focused on adapting existing F2F classroom methods and materials to delivery on a virtual platform, a considerable task even for experienced online teachers (DeGagne & Walters, 2010). Assigned to teach a specialty ESP content course, T2 was thrown into a situation that demanded extra work and was also marked by the stress and uncertainty of being forced to 'figure out' ways to get required course content online:

> *If you don't want to change your course material, or your textbook, I mean, you need to adapt your contents. You need to figure out, you need to redesign the materials to suit your classroom. We don't have our materials already prepared to suit the delivery or interactions online* (T2, I1).

Here, T2 shows an awareness of the need for content redesign that corresponds with findings from Todd's (2020) study of EFL teachers at a university in Thailand, where some teachers acknowledged that simply converting their classroom teaching materials to an online format was not sufficient for achieving instructional objectives and supporting student engagement. T3, the other veteran online teacher in this study, was clear about the increased time investment and enhanced workload involved in moving to e-learning without a pre-established online content inventory and associated pedagogical strategies:

> *Personally, first, when we talk about the online, we need what we call digital curriculum. It is not available from our side. The university gives the freedom to the teacher to select the topic and to go and teach to his students. How can I teach without preparation? So, this takes time and effort from the faculty members to prepare, then to share with your students* (T3, I4).

This aligns with findings from research at another Palestinian HEI, where teachers believed that course texts were not suitable for online use, while their teaching workload left them with insufficient time to prepare appropriate e-learning content (Qashou, 2022).

When working to adapt F2F content and pedagogy to virtual spaces, the experienced online teachers were able to analyse requirements from a position of awareness and articulate possible plans of attack. This capability probably mitigated their experience of an increased workload and facilitated their shift online. In contrast, the inexperienced teachers T1, T4, and T5 had to begin work on the same problems starting at or near the bottom of the learning curve. *The key issue here is to use e-learning and how to use it in a good way, how to select good material for your lecture* (T1, I1). In a situation where experienced online instructors were challenged in delivering their courses, it is not surprising to see that teachers who lacked training

and experience in the development and deployment of digitally mediated pedagogy struggled to achieve efficiency in adapting their F2F course designs and content coverage.

> *I tend to mention every detail because I want to show that I'm covering all the material of the course in each lesson. So of course, it takes a lot more time than face-to-face teaching. Also, there are typo mistakes and I have to make sure that everything is typed correctly and I haven't copied anything twice in other places by mistake and that takes a lot of time* (T5, I2).

The pandemic-era research literature describes new online teachers as commonly facing a two-pronged challenge during the shift to ERT. They struggled to create new content and/or prepare F2F course content for use in the virtual classroom (Clarin & Baluyos, 2022; Hartshorn & McMurry, 2020; Tafazoli, 2021b; Todd, 2020); meanwhile, they were forced to spend a lot of time and effort in self-training on the technical and pedagogical skills needed for online teaching (Bailey & Lee, 2020; Moghli & Shuayb, 2020; Tafazoli, 2021b). This was the case for some teachers in the current study as well:

> *I tend to use the YouTube. I read, and I search in Google. And there are the Google scholars in how to use the technology and how to develop your skills, but I still need someone to guide me which courses or which material I have to read about exactly* (T5, I4).

A standard precept of online e-learning, and DCALL in particular, is that technology use, pedagogical approach, and learning activity design are influential factors in learner motivation, engagement, and satisfaction as well as learning outcomes (Allen et al., 2019; Hartnett, 2016; Lamy, 2013). As a strategy to compensate for the loss of interaction and stimulation that are benefits of meeting together in a physical classroom space, online teachers must ensure high levels of interactivity and student centredness in their virtual classrooms.

> *I think student engagement and involvement should be there in every e-lecture because you guarantee that your students are always on the right track. And you are not always lecturing, you are interacting, and the more you change your meeting to an interactive meeting rather than lecturing meeting, it would be better in achieving your goals* (T2, I1).

As the literature confirms, even when technical frameworks, curriculum outlines, content resources, and expert support are already in place, delivering high-quality classes in an online or blended-style format calls for significant time spent in preparation (Allen & Seaman,

2010; Chiasson et al., 2015). Even having specialised training in technology-enhanced education and being experienced as a teacher trainer in the same subject, T4 still highlighted the time required to meet the specialised demands associated with providing interactive, engaging online classes:

> *You have to think of many angles when you are preparing for online classes. Activities should be interactive, which are lacking in other classes, so surely online preparation takes longer time than traditionally because here you have to think about designing activities, designing roles, designing projects for students where they have to take part in doing them* (T4, I2).

4.2.2.2 Loss of Access to Humanware Affordances

In their professional roles, the teacher participants in the present study were caught up in a wave of forced change that swept over an entire education system and a local HEI that, until the foray into ERT, could be most accurately characterised as conservative, traditional, and teacher-centred (Hamamra et al., 2021). The Palestinian system and its institutions are further described by Hamamra et al. (2021) as heavily reliant on rote memorisation and undeviating repetition of words and ideas received from authority figures, with students very much in the passive, empty-vessel role. This type of pedagogical approach, common to Arab schooling (Muasher, 2014), is rooted in the Koranic School tradition. This is a form that Akkari (2004) describes as reliant upon ritualised oral transmission, repetition as a central practice, and 'mobilisation of the body by rhythm and voice' (p. 4). It is a rigidly transmission-based methodology that necessitates the physical co-presence of teacher and students in the same space and accepts little deviation from established norms and values (Akkari, 2004). When online ERT suddenly forced the recently built Western-style educational structure away from this much older F2F foundation, humanware was effectively deleted from the system.

Humanware is the human element of teaching and learning—the social components of group bonding that include shared practices, attitudes, and values (Tam & El-Azar, 2020). As noted in Chapter 2, the literature describes at least two types of educational humanware; recall my framing of a paradigm contrasting soft humanware, a largely soft-skills-oriented genre of humanware, with hard humanware, the practically oriented, technical capability-based humanware discussed by Warschauer (2002, 2006): human resources in the form of educators

who have and can collaboratively share the attitudes and skills needed to confidently engage and innovate with digital technologies.

The move into ERT suddenly stripped the teachers in this study of access to the soft humanware on which their traditional F2F practices relied. It was a jarring experience even for teachers with extensive experience in virtual class spaces, especially given the students' initial lack of familiarity with online learning communities: *There is no social presence or social context you feel. Also, students don't know how to collaborate or cooperate with each other* (T2, I1). For teachers with no online teaching experience, the situation probably instigated epistemic mis-match and distress around their beliefs about teaching and learning as per the concept put forward by O'Siochru and Norton (2014), and was therefore particularly disorienting. In effect, it was an epistemic trauma and communication breakdown that could be difficult to recover from:

> *When I contact with my students, I prefer to have eye contact and I can identify who is really understanding, who is really focusing with me, who really does not understand, and so on. So, behind the screens, you cannot evaluate there. You cannot evaluate them and whether the usage of the technology or not I'm not talking about the process of using technology. I'm talking about the process of teaching methodology* (T5, I4).

(Note that T5 is speaking here after 16 months of teaching online.)

At the same time, as will be seen in following sections of this chapter, the WBU teachers had little access to the hard humanware that could have done much to make the transition to ERT easier and reduce the overall discomfort and uncertainty of the situation. Their situation was not unique; the pandemic-driven shift to ERT revealed that limitations in, or complete lack of access to useful hard humanware resources was a common condition at HEIs in developing countries (cf. Hartshorn & McMurry, 2020; Obaid et al., 2020; Tafazoli, 2021a, b; Todd, 2020).

4.2.2.3 Inadequate Institutional Support

The data gathered in the present study revealed a number of congruencies with previous research that support the necessity for comprehensive institutional support for teachers engaged in online teaching in general (Blundell et al., 2020; Kebritchi et al., 2017) and particularly during the initial transition to e-learning (DeGagne et al., 2010; Hartshorn & McMurry, 2020; Todd, 2020). Participants' reflections tended to align with the viewpoint offered by Kebritchi et al. (2017) regarding institutional responsibility to provide comprehensive technical support, support for

course content development, and training for faculty and students in strategies for effective online teaching and learning.

Along with lack of technical skills, inadequate technical support is a challenge that can prevent faculty from teaching online or being effective in fully online courses (Evans & Myrick, 2015; O'Quinn & Corry, 2002). This study uncovered change over time in the experienced online instructors' views of the adequacy of institutional technical support services and divergence between the perceptions of experienced and inexperienced online instructors regarding some aspects of the institutional support provided during the transition to e-learning at WBU. In one study at a Palestinian HEI during the period of transition to ERT, the surveyed instructors viewed a lack of technical support as an obstacle to their use of e-learning (Qashou, 2022). Similarly, when queried about the availability of technical support during the emergency transition to e-learning at the University, T2 initially reported some degree of weakness and lack of proficiency on the part of university ICT support team members: *My first problem when I started to use Google Classroom was that the technical staff or academic advisors do not know how to include or use applications such as Google Meet and Google Classroom proficiently* (T2, I1).

T3 felt that the ICT staff were helpful but expressed confusion and irritation with the many directives coming from the institution's administration at a time of uncertainty for teachers:

> *Yes, somehow the university can give a hand for the teachers for any technical issue. The* [IT] *department, they are really helpful and they also give some help to us. And they* [the administration] *give us a lot of instructions that also trouble us, definitely they trouble us, and these instructions are really in place, ok? Because repeatedly they are asking for the same things and this irritates the professor in general because in this time we are not sure how to give our lecture, how to present something good, and how to follow our students* (T3, I1).

T2 summed up first impressions of the situation in a succinct manner: *The university is not experienced enough in the e-learning. This is a very important point, compared with other universities such as the QOU University* (T2, I1).

In the fourth and final interview five-and-a-half months later, Question 3 asked *How would you rate the performance of ICT management within the university during this emergency transition to e-learning?* Here T3 expressed a more positive perspective on the support available

from programme administrators and the IT department, and the contribution that support made to successfully navigating ERT.

> *The technical staff and the academic staff, they collaborate together and from the side of technical staff, they found Google Meet, and its extensions that we use in the classes…and at the same time, the teachers should prepare themselves to work with this kind of a platform through the short training course or some instructions passed to the academic staff from the technical staff, and that's why they come with a good result and they* [the teachers] *managed to do their jobs efficiently or effectively* (T3, I4).

T2, the most experienced online instructor, responded to the same query with the comment that available support was 'average' and a reflection on the need for the IT department and university administrators to go beyond immediate support and take proactive roles in moving the faculty forward in their development of ICT skills.

> *In my own point of view, it's average, as the faculty members at the university need more skills to be developed, and it is a golden chance for the administration and the stakeholders in planning to develop the faculty members' skills with ICT tools, how to develop their digital skills, and so on during the summer vacation. And I think it's a must for the university stakeholders if they want to think deeply in the academic process and the performance of teachers and students, because it's a golden chance for them in the coming weeks when the faculty members go back to their Universities* (T2, I4).

As indicated above, a contrast appeared between the experienced and inexperienced online teachers regarding the support services provided by the institution. When asked for an opinion on this matter, T5 appeared to be quite happy from the start with the university ICT support services.

> *Yes, they keep contacting us all the time and they are providing us links how to improve the usage of the apps, for example Google Meet, and how to avoid any obstacles and how to upgrade our applications. They put it in very comfortable ways. I think they are supporting us totally 100 percent. Yes. And whenever I feel any problem, I contact them and they respond very quickly* (T5, I1).

T1 gave a similarly positive review: *Yes, they support us in this area, and I think it is good. They are good. They are good people. And the team is really good* (T1, I1). Both of these teachers maintained this positive viewpoint throughout the period of ERT: *Well, the staff and the crew*

were great technically they were great (T5, I4). *Yes, I think that there is a lot of helps and a lot of assistance that give that this department gave the teachers to use the technology* (T1, I4).

It can be inferred from the change over time in the experienced online instructors' views that, like the teachers, the IT staff at WBU learned, adapted, and gained proficiency as their engagement in e-learning support went on. Complaints about facilities and support were largely absent in the fourth and final interview, and one of the two participants who had been new to online teaching and learning expressed a positive view regarding moving forward with work on developing online tools and pedagogies. There is no surprise in the finding of divergence of perception between experienced and inexperienced instructors regarding the initial availability and quality of institutional support. Past research indicates that experience teaching online is an influential factor in teacher perceptions of various aspects of institutional support as well as in overall teacher expectations around the matter of support while teaching online (Walsh et al. 2021; Walters et al., 2017; Windes & Lesht, 2014).

Interview1 >Question 7: *Do you feel that the university supports you in your use of e-learning in your teaching?*

T4: *The support is not in the process of teaching, the support is solving technical problems, but they don't interfere with the methods of teaching: how you present the materials, how you deal with the materials, or how you evaluate the materials, or how you deal with the weak students. Actually, the university helps us with different support in the technology, not more than that.*

As noted above, there was no inventory of online-ready content available to teachers at The University as they made the transition to e-learning, while the literature around online education describes the time and difficulty involved in producing new materials or adapting existing F2F materials for the online setting (Chiasson et al., 2015). Research also documents the need for, and frequent lack of, appropriate training, support, and incentives for teachers engaged in this work (Allen & Seaman, 2010; Kyei-Blankson & Keengwe, 2011; Li & Irby, 2008). Yet, during data analysis for this study, no theme coalesced around the matter of institutional support specifically for content production. Other than a few mentions of the need to prepare materials and the time involved in converting F2F materials or producing new content, the participants in this study did not express much reaction to the absence of institutional support for course development or comment on the need for this type of support.

In fact, T1 appeared to be opposed to the provision of such support:

As a good teacher you should know how to plan your lecture and how you go on with the processing of your material. How to teach, this is the problem of the teacher himself and you have to alone draw down your materials (T1, I1).

T2 also took the position that the teacher is responsible for materials development. The example of T1 and T4 here demonstrate how the focus in general among the teachers tended to remain on the level of content/materials development rather than course development from a holistic standpoint. When the matter of institutional support came up in an explicit fashion, it was most frequently in relation to technical/technology support services.

However, this topic of institutional support for course development (to include content development work) appears as a prominent theme in the literature on the experiences of online teachers (cf. Allen & Seaman, 2010; DeGagne et al., 2010; Walters et al., 2017; Windes & Lesht, 2014). T2 alone offered some detailed, experience-based reflection on this important issue, and the need for this type of support is potentially generalisable to any deployment of e-learning in any type of education or training context. Therefore, the subject is noted here with a brief discussion. T2 made comments citing the importance of materials development work and directly highlighting the need for institutional support:

The design of the course: the material, delivery, or how the teachers display the material, how they prepare the material for the students, plays a big role in teaching online. I think in this area, we need to cooperate with the technical staff. Preparing our material is our responsibility, right, but producing, decorating, designing, fitting the material to be attractive to students is the responsibility also of the technical staff (T2, I1).

T2 later went on to reflect on the role of adequate technical support for multimedia materials design in mediating the workload faced by teachers:

I pay much effort to, and I spend time, a lot of time, to search for videos, to search for recordings, images, and so on to involve and motivate my students. But if I have technical support in this area, it will be much easier for me (T2, I1).

These ideas from T2 regarding support and collaboration around course and content development are reflected in other researchers' observations of the increasing use of collaborative, team-based approaches to this task (Ko & Rossen, 2017). They also confirm studies that demonstrate the usefulness of access to specialised instructional design support and

teachers' willingness to take advantage of it (DeGagne & Walters, 2010; Windes & Lesht, 2014; Xie et al., 2021).

The need for appropriate faculty training before undertaking online teaching is a common-sense concept and well covered in the relevant literature (Allen & Seaman, 2010; Mishra & Koehler, 2006, 2009; Olcott & Wright, 1995; Philip et al., 2019).

> *I can say that I really need training courses to develop to improve my strategies to online teaching. Because it has a very huge difference from face-to-face teaching. Totally different, it's much harder, very hard. Maybe you have to be capable in using all computer programmes* (T5, I4).

The importance of such professional development and the lack of it among some participants in the present study have been adequately exemplified in subtheme 4.2.1.1 above. The need for teachers to move beyond basic levels of technical competency into full digital fluency, as emphasised in work on the TPACK concept by Mishra and Koehler (2006, 2009), is one additional point of interest to note in passing here:

> *I feel that we need more training courses in different platforms, not only in one particular platform, because maybe other platforms would give us more facilities, more options, to pass information and knowledge to our students through tasks or through other activities we can find in other platforms* (T3, I4).

Highlighting another aspect of institutional support for online teaching, some participants in the present study felt that launching a fully online curriculum in ERT mode without adequate technical training, prepared curricula, and appropriate content inventories placed unreasonable demands on teachers. In a similarity with findings from other research on teachers' perceptions of working online (Blundell et al., 2020; DeGagne & Walters, 2010; Qashou, 2022), T2 called for institutional moves to reduce workloads for teachers developing and delivering online courses. *Because this is our first experience in teaching online, I think teachers are overloaded with the 12 credit hours, so the department should focus on decreasing the amount of hours that every faculty member should teach* (T2, I1).

Observations of institutional shortcomings of this sort were not confined to the veteran e-learning instructors. Confirming the findings of DeGagne and Walters (2010) and Qashou (2022) that extra monetary compensation or a stipend should be a possibility for teachers working in online course development, T1 was very direct in stating that *They don't support, they don't pay more, they don't look at I think, this is a very difficult task, using the internet,*

especially for those who are old age (T1, I1). Windes and Lesht (2014) show that offers of release time or compensation can act to motivate both experienced and first-time HEI online teachers to take on e-learning courses, and as T1 appears to indicate, this may be the case at WBU.

4.2.3 Subtheme: Inadequate Infrastructure

Successful online education programmes rely on a particular and relatively inflexible set of infrastructure elements that must be well-established and nearly 100% reliable. These include the electrical utility grid and telecommunications network at the community level, and the institutional-level infrastructure needed to support the design and deployment of online courses.

> *As an instructor, or as a teacher, you need to focus on the material itself. Not on your tools, are they set in a good way? Do you have electricity? You'll have to make sure internet is not running out…Plus, many students lost connection and electricity. Power is cut off and so on. There are many circumstances that really affect this teaching process and everything is going negatively. I didn't like it at all* (T5, I4).

As T5 alludes to, even in a context marked by cutting-edge digital tools and virtual teaching and learning spaces, teachers must be unhampered by external disruptions or distractions and left to focus most of their efforts on the traditional requirements of their practice: engaging students, delivering content, and assessing student learning. Working in an online virtual environment obviously requires an uninterrupted electricity supply to reliably power electronic devices. Add to this the telecom network infrastructure and internet bandwidth needed to support the functions of a wide range of online applications and allow convenient, simultaneous access to the same by numerous administrators, support staff, teachers, and students. It is common knowledge that anything less than complete development and reliability in these two critical services will inevitably result in challenges, disruptions, and reductions in effectiveness for educators and students attempting to utilise digital resources and online spaces.

This has been shown to be the case in numerous studies focused on the delivery of online education in developing countries (Naveed et al., 2022; Qashou, 2022; Tafazoli, 2021b; Tarus et al., 2015). As the theme identified above indicates, the present study also revealed challenges posed to participants by inadequate community and institutional e-learning infrastructures. Two cross-cutting subthemes emerged as key contributors to the primary theme identified in this

section: unreliable public electric power supply and internet connections, and inadequate institutional e-learning infrastructure.

Based on evidence found in the data and for the purposes of this discussion, public or community infrastructure can be defined as the electric utility and telecommunications grids and associated equipment/providers that as a working whole provide electric power and internet connectivity throughout a community down to the household level. Institutional infrastructure is here taken to fall into two categories: hard and soft e-learning infrastructure. The former can be considered to include institution-based hardware such as central servers; intranet networks and connective devices such as classroom wired and wireless portals; and various end-point technologies such as user terminals, classroom projectors, SMART Boards, and so forth. The data in this study contained no significant participant references to institutional hard infrastructure. The latter—soft infrastructure—includes institutional websites and web portals along with LMS platforms and other software tools hosted and supported by a school and employed in providing network access, delivering educational content and activities, and facilitating asynchronous and synchronous communication and interaction between and among teachers, students, and possibly various institutional resources (e.g. enrolment and administrative services, technology support centres, libraries, etc.).

4.2.3.1 Inadequate Community Infrastructure

In developing countries like Palestine, it is not always possible to secure the reliable electric power and telecommunication services needed to support digitally mediated education programmes (Bhuasiri et al., 2012). *You know we are the third world. This* [technology] *is still something in other countries, developed countries are maybe used these technologies before us for many years* (T5, I4). As several other pandemic-era researchers (Clarin & Baluyos, 2022; Crompton et al., 2023; Nambiar, 2020; Qashou, 2022; Tafazoli, 2021b) revealed to be the case with teachers across a variety of school settings and regions, the teachers in this study frequently encountered problems arising from the fallibility or inadequacy of these infrastructure elements as they exist in Palestine.

Bashitialshaaer, Alhendawi, and Avery (2021), Moghli and Shuayb (2020) and other researchers have documented that electricity and network outages with a variety of causes are common occurrences in Palestine and the neighbouring countries of Jordan and Lebanon. All participants in this study referred to their practices being affected at various times and to

different degrees by unreliable electric power and internet services. They indicated that disruptions arising from faulty and low-quality community utility and telecom services were a constant possibility during the period of pandemic school closures in Palestine or at any other time. Across the interview series in the present study, T5 made most frequent mention of power outage: *Many students lost connectivity and lost electricity. Power is cut off and so on* (T5, I4). Moreover, T3 described cases where the same problem represented a permanent condition rather than a matter of temporary outage: *Some of the students, they don't have electricity in their areas* (T3, I1).

Another key issue that is sometimes here in Palestine is difficulty with the Internet connection speed (T4, I1). Localized and/or widespread internet connectivity problems are frequent in the OPT.

Sometimes the Internet is off, so bad connection with the Internet, and at the same time, now it may be fine but tomorrow it may be bad. Also, the winter is coming, the rain, the storms will come then it will disturb the connection between you and your students in the session (T3, I1).

As noted in Chapter 1, a portion of the Palestinian population lives in internet dark zones (Dweikat & Raba, 2018) and access to high-speed mobile data networks is not universal and can be expensive (Moghli & Shuayb, 2020). Moreover, many students in Palestine have limited access to computers and smartphones (UNESCO, 2020b). *We have a big number of students who do not use laptops or computers or even tablets or smartphones all the time. So, they are not accustomed to using those devices. Accordingly, they face problems* (T2, I3).

The effects that unreliable electric power service can have on e-learning delivery are compounded by further complications introduced by network downtimes, access limitations, dark areas, and reliance on low-speed connections that deliver the 'snail-like' speeds noted by Moghli and Shuayb (2020). The end result is frequent disruption of e-learning course delivery: *Sometimes you find your electric current or internet lines are off and this is a big problem when you are proceeding with your lectures and explaining to the students what you are teaching* (T1, I1). For teachers, an unreliable internet connection can cause embarrassment in front of students, force the expenditure of additional time and labour on the preparation of back-up lessons and activities that do not rely on ICT, and lead to frustration and demotivation (Alexander, 2007).

Beyond these issues around establishing the basic teacher–student connections and communication avenues over distance that are requirements of effective online education, poor

connectivity forces teachers to deal with further elements of uncertainty. T5 was clear about the uncertainty that unreliable connections can introduce into teaching and learning processes: *We don't know what they are facing. Do they have any internet connectivity or are they really committed to attend online classes or not?* (T5, I2). It is possible that students may use unreliable services as an excuse for non-participation. For example, teachers engaged in pandemic ERT at HEIs in India reported a lack of student interest and involvement leading to excessive absences, with a multitude of excuses offered by students including connectivity issues and poor-quality audio and video. 'It is difficult for them [teachers] to know if they [students] are giving genuine reasons or just escaping from attending the classes' (Nambiar, 2022, p. 788). A similar phenomenon was described by teachers in the present study:

> *You can never guess the circumstances that they are facing or what the effects are on their participating in the classroom. I have to say that they hardly cooperate, and when I ask them why everyone is not participating individually, some say lack of electricity, lack of internet connectivity, and so on* (T5, I4).

As T3 also explained: *Some of the students say* 'Ok, we have some problems with receiving the material.' *Maybe they ask can we send them once again.* 'What's the problem?' *I ask them, and they say* 'Oh I didn't receive this material.' *or* 'The Internet is the problem.' (T3, I1).

4.2.3.2 Inadequate Institutional Infrastructure

As described in Chapter 1, at WBU, Google Classroom served as a learning management system during the halt to F2F teaching, with the Google Meet video conferencing application implemented to support synchronous class sessions. This was the practical extent of the virtual classroom infrastructure provided by the university. The experienced online teachers generally endorsed the GC and GM applications, at least to fulfil the need for rapid implementation under the emergency conditions. However, having some basis for comparison, T2 and T3 were not necessarily satisfied with the limited options provided: *The challenge for the teacher is that the university should provide something, okay? Like instead of using some platform, for example Google Meet, they can use a better one like Zoom or some other thing* (T3, I2). These teachers also outlined the need for a properly developed institutional online learning management infrastructure.

> *Google Meet and Google Classroom should be used for a while, to bridge a certain gap, for example at the beginning. I will understand that the university was not able to make*

platforms available for teachers and so on. But these days, there is no excuse for the university administration to say no, we don't have a platform. They should create their own platforms (T2, I2).

T2 went on to explain the potential problems that can arise when teachers build courses and author materials that are then stored on a non-dedicated second-party platform like Google.

Once we create our own platform, we will have our meetings, activities, content and so on archived or indexed for the university if we want to. We have already worked or our classes. How should we import all the content we have already created on Google Meet and Google Classroom? I think it's related to the copyright. And we should create our own university platform like Moodle (T2, I2).

T3 mentioned the control, subject-matter specialisation, and privacy that a dedicated institutional learning management system can offer and, like T2, noted negative aspects of relying on web-based resources:

Regarding the platform, it needs to be modified, it should be the control from the teacher. For the Department of English, our university should work on or adopt some platform which is particularly in our department. Like for example, I think Zoom is much better than Google Meet but you have to pay some fee here and it should be also controlled by the department and the teacher not to be public, more private (T3, I3).

As previously noted, even in cases where Palestinian higher education institutions have an LMS such as Moodle, Canvas, or Blackboard available, this does not mean that the system is being used effectively (Obaid et. al., 2020). Aside from this, the suggestions for tools made by T2 and T3 accurately reflect the documentation by Turnbull et al. (2021) of the most common applications chosen by many HEIs for the delivery of pandemic ERT. In a review of 26 research articles related to the transition of higher education programmes to online learning during the pandemic, Turnbull et al. found Zoom mentioned in 14 papers, with Moodle and YouTube both appearing in 10 papers as the second most commonly mentioned platforms. Only four papers mentioned Google Classroom. Zoom also proved to be popular specifically in the ELT field for supporting synchronous interaction (Davies et al., 2020; Hartshorn & McMurry, 2020; Todd, 2020).

4.2.4 Subtheme: Classroom Impact

This chapter has so far described three emergent thematic strands developed around the research participants' perceptions of effects that the implementation of online ERT at WBU had on their institution, teaching practices, and students. The data reveals that teachers in this study were pushed toward uncertainty in their beliefs about the effectiveness of e-learning as a viable instructional strategy at their HEI because of (a) the challenges presented by the sudden, unplanned transition to e-learning; (b) increased investment of time and labour involved in teaching online; and (c) the obstacles that inadequate community and institutional infrastructures posed to the efficient delivery of online education. Supported by an extensive review of relevant literature, I propose that these driving factors of uncertainty can all be viewed as generalised or macro-level effects that impacted many teachers across the globe and the region (cf. Almahasees et al., 2021; Barrot et al., 2021; Bashitialshaaer, Alhendawi, & Avery, 2021; Bozkurt et al., 2020; Ferri et al, 2020; Judd et al., 2020; Krajka, 2021; Marinoni et al., 2020; others).

The data collection and thematic analysis processes used in this qualitative case study also served to narrow a fine-grained focus on some of the micro-level aspects of the participants' daily work at delivering their courses in virtual classroom spaces. This close-up view revealed several emergent phenomena representing various types of classroom-level impact that engagement in ERT-style e-learning had on these individual teachers in the particular institutional and cultural contexts framed by this study. In some cases, the evidence of a particular classroom impact cross-cut the data to comprise a theme. In other instances, evidence only occurred at a few places in the data, but pointed to an issue that was especially compelling or relevant, and so worthy of note. Taken together, these phenomena comprised a thematic strand that I have referred to as *Classroom Impact* even though some or all of these phenomena may have implications beyond the classroom.

Some types of impact associated with the adoption of e-learning may arise solely from conditions specific to pandemic ERT, or the sociocultural milieu of Palestine, or the institution, teachers, and students featured in this thesis. Others may be generalisable to any situation where a shift from F2F practice to online e-learning is underway, and particularly in sociocultural contexts marked by economic underdevelopment and disadvantage. Taken as a whole, the classroom impact brought on by the leap into online ERT at The University was another primary source of teacher uncertainty regarding the instance of distance e-learning practice explored in

this study. The primary types of classroom impact evidenced in the data are presented and discussed in the following sections.

4.2.4.1 Impact on Teacher Roles

As discussed in Chapter 2, the body of literature around digitally-mediated teaching and learning, going back to the origins of the field, consistently references shifts in teacher role, identity, and epistemology of teaching and learning that can and should occur when engaging in this mode of education delivery (cf. Carrillo & Flores, 2020; Dron, 2007; Dwyer et al., 1990; Lund & Aagaard, 2020; Oates, 1985). When the first interviews of the present study were conducted, the WBU online e-learning programme had been in place for nearly two semesters, and the research participants had managed to overcome the initial shock of the emergency transition and gain the objectivity needed to reflect on effects the move online had on their perceived identities and purposes as teachers.

The protocol for Interview 2 included a direct query exploring the participants' perspectives on any changes in their roles. Interview 2>Question 2: *How has your role as a teacher changed since your courses have become part of the ICT integrated programme?* The answers offered an interesting contrast between the various teachers' conceptions of their roles in virtual classrooms and digitally mediated teacher–student relationships as compared to working in the traditional F2F classroom. T2 indicated that the initial explorations of online learning investigated in this study represented an enormous departure from typical Palestinian epistemologies of education for both teachers and students:

> *In the Palestinian education context, the villages were so traditional where the students are passive and the majority of the time is allotted to professors. Online learning was integrated as a kind of breaking this routine and I think it was a big shift. It was shocking to us as teachers. I don't know if the rest of the teachers felt this, but it was first of all shocking to me because I had no experience with such pedagogies. My role became changed bit by bit because I tried my best to involve my students, and I think we should all do this. We should ask students to be autonomous* (T2, I2).

(Note: T2 had extensive experience with online learning as part of blended-style courses at QOU and with in-class e-learning activities, but not with long-term purely online distance learning.)

As T2 indicates here, evidence shows that the teachers in this study were forced to reconsider and restructure their roles within the teaching space and teacher/student relationship.

This involved relinquishing control as the keepers of knowledge and moving toward learner autonomy in line with contentions pandemic-era researchers like Foreman-Brown et al. (2023), Bacova and Turner (2023), and Shobeiry (2024) make regarding teachers and online distance education. As explained by Lund and Aagaard (2020), teachers in this situation may need to rethink their concepts around knowledge and their identity as a teacher or transmitter of knowledge, and be willing to embrace epistemic transformation.

T4, experienced with technology-enhanced classroom practice but inexperienced in fully online teaching, gave a detailed response that corresponded closely to generally accepted models of movement toward a learning- and student-centred education paradigm, the type of approach commonly associated with online education (Dron, 2007; Hanson, 2009):

> *While contemplating on my role as a teacher inside the classes and now delivering lectures online, it's quite a change in the role. At the very beginning, as a teacher, when I speak about traditional classes, teacher is the store of knowledge where he has to give every aspect of himself to present to students on that small* [chalk] *board the ideas. And I can say that it was a kind of spoon-feeding method, but now there's a shift in the way that I deliver the classes. Moreover, there is a change in the way that I interact with the students and also the students the way they interact during the online classes and how they participate in the group discussion* (T4, I2).

Later, while discussing the adaptation of student performance evaluation strategies to the online environment, T4 captured the gist of current thinking on teaching in the online classroom while further articulating the classic description of the teacher's role in a constructivist, student-centred classroom; that is, one in which students are granted a degree of freedom, autonomy, and agency as the teacher takes the role of facilitator of learning (Dewey, 1938/1997; Hoidn & Reusser, 2020; Weimer, 2002):

> *I can say here my role is no longer responsible for delivering all of the knowledge or even providing all of the sources for learning but I maintain a critical role as a guide, facilitator and assessor of the learner* (T4, I2).

T1 gave an answer that emphasised this movement away from the teaching-centred paradigm toward more student autonomy as the constructors of knowledge, echoing what some early authors on instructional technology referred to as a paradigm shift from content delivery-focused to learning-focused instruction (Barr & Tagg, 1995):

Students as you know are accustomed to a teacher-centred class. I think they are used to not being the centre of the class in my face-to-face or traditional way of delivering the content or pedagogy. What was challenging to my role [online] *is that I was sometimes or most of the time dominant in the class, and I hate this role to be the dominant to be the centre…My role was frustrating to me at the beginning but later on I learned some strategies where I can evoke my students to be part of the class and to share with me their ideas and their contributions* (T1, I2).

The contrast appeared with the other two teachers' (T3 & T5) responses; both seemed to interpret the question from a mechanistic or practical point of view and described their changing roles in job-centred terms of new tasks or approaches to work that had to be undertaken. For example, course and materials development:

I myself made the course. Okay, it's really quiet now, but this pandemic will come in certain times, so we have to rush as teachers to build up our ICT [skills] *or make materials digitalised so we can use them* (T3, I2).

T5 reflected on major changes in delivery modes:

Yeah, my role has been changed because I have utilised many programmes from the computer. Actually, I used to be a very traditional teacher using the book and the whiteboard, but when we are, let's say, under this pressure, we have to use online courses and e-learning (T5, I2).

Whether F2F or online, the dramatic shift in identity and role called for by the transition to a student-centred instructional model can provoke resistance in some teachers (Keiler, 2018; Wiske et al., 1988). However, this sort of role shift is essential for effective online distance education, where moving away from traditional teacher positioning as the source of structure and control over learning processes is a move Moore (1993) proposes as necessary to decrease transactional distance and support learner autonomy.

While the data from this study shows teachers adapting to and even embracing role shift, this change is one reason why a move online, even in a well-planned transition, and especially for teachers who are highly experienced in traditional classrooms, is likely to be a cause of profound uncertainty. Role shift upsets the balance of power between academic and student, and potentially prompts an undermining of the teacher's sense of professional identity (Bacova & Turner, 2023; Hanson, 2009; Huang et al., 2023). With digital technology mediating their

relationship with students, some teachers may feel they are no longer engaged in teaching in the traditional sense (Alexander, 2007).

Reflecting on the phenomenon of teachers relinquishing a degree of control when moving online during the thesis write-up stage of this project, I noticed frequent references to control of the classroom and students in the T5 interview data. I considered investigating my impressions in some quick and efficient manner, and examined the possibility of running a simple automated word frequency analysis (WFA) to get a more precise view of this aspect of the teacher interview data. Word frequency analysis is one genre of content analysis, a common qualitative research method broadly defined by Holsti (1969) as any technique for drawing inferences from objectively and systematically identified characteristics of messages. Simply stated, WFA involves searching for dominant topics in a body of textual data by counting the appearances of a specified word or phrase in the data (Relative Insight, 2023).

Word frequency analysis comprises one of the primary methodologies included in the larger field of text mining (Miner et al., 2012) — the computer powered extraction of interesting information and knowledge from large bodies of text (Hotho et al., 2005). With modern computerised text-mining techniques, researchers can search massive amounts of text and accurately link language use with real-world human behaviours; self-reported measures of personality, social behaviour, and cognitive style; and even psychological, emotional, and biological states (Pennebaker & Chung, 2014; Tausczik & Pennebaker, 2010). Given adequate sample size and effective analytic methodologies, analyses of natural language can not only generate detailed information about individuals, but can also 'inform our understanding of ourselves, our cultures, and our history' (Pennebaker & Chung, 2014, p. 3).

A range of text analysis techniques including WFA are well-established research methods, and by now most people will be aware that the field and implementation of text mining and other types of data mining have exploded to become ubiquitous (and somewhat insidious) throughout most highly-digitalised societies. The words people use and expose online as text or speech are being collected and analysed by various entities for purposes as varied as predicting the potential for box office success of movies (Kang & Jeong, 2018), public perceptions and expectations regarding children's preferred activities in urban public parks (Yang et al., 2024), consumer opinions of products (Dave et al., 2003) and services (Sri et al., 2023), along with much, much more.

As a research method WFA offers advantages, particularly when mechanised via computer: it is fast, relatively non-labour intensive, and accessible to researchers of nearly all levels of expertise (Leech & Onwuegbuzie, 2011; Tausczik & Pennebaker, 2010) and it lends itself to replicability (Kirk, 2009; Stemler, 2000). Although standard measures of reliability are not always appropriate (Tausczik & Pennebaker, 2010), establishing reliability by means of replication is not overly difficult (Stemler, 2000). Among WFA disadvantages, primary is dependence on large sample sizes both in terms of volume of input text and breadth of sources if there is to be any possibility of generalisability (Tausczik & Pennebaker, 2010). Another issue is the fact that WFA analyses datasets in isolation and cannot effectively capture context and therefore meaning in many cases (Relative Insight, 2023; Tausczik & Pennebaker, 2010); for many qualitative research purposes, especially with small samples, further analytic work using a Key-Word-In-Context approach will almost always be required (Stemler, 2000).

In relation to this, Kirk (2009) explains that WFA appears to offer precision and objectivity due its quantitative nature, but the outcome tends to be imprecision and relativity because WFA output finally requires qualitative interpretation. Any inferences made from the frequency of a words' appearance in a text are therefore necessarily subjective. In addition, an outlier affect arising from the over- or under-use of particular words can introduce inaccuracies by effecting and influencing the creation of discourses and the relationships between those discourses (Kirk, 2009). Multiplicity and variation in the meanings of words create another obstacle to accurate search filtering and output interpretation (Petrova et al., 2012; Stemler, 2000). Other lexical effects such as the use of synonyms throughout a document for stylistic reasons may cause researchers to overlook an important concept or theme (Weber, 1990). Finally, computerised language analysis tools inevitably ignore irony, sarcasm, and idioms, or misinterpret them according to the coding of the software (Tausczik & Pennebaker, 2010).

A small sample size such as in the present study may hamper generalisability and lead to over-simplification, but it likewise simplifies the implementation of WFA. Stemler (2000) suggests that WFA is an effective way to initially identify words of interest that can then be evaluated by using the key-word-in-context method to explore context and consistency of usage and thereby support validity in the inferences made from the data. In this case, I had already identified a potential target word during manual data handling tasks. I decided to move ahead with a basic WFA, not as a major analytic strand in my work, but as a means of engaging in deeper conversation with the data and teasing out phenomena that did not rise to the thematic

level during the main stages of analysis but nonetheless appeared to have the possibility of offering interesting insights.

Using the find/replace function of my word-processing software to run a simple word frequency analysis of the T5 data revealed five uses of the term *control* with references either to controlling cheating or with connotations similar to this statement: *Students are more controllable when we stay in face-to-face instruction but in e-learning, there is no guarantee that students are focusing or concentrating* (T5, I2). Extending the analysis to uses of *centre* uncovered no references by T5 to the concepts of *teacher-centred* or *student-centred*. Once alerted, I realised that a similar trend was present in the data from T1. Curiosity motivated application of the same analysis to the entire body of interview data (see Table 4.2). T1, a very experienced teacher but inexperienced technology user and online instructor, focused on the issue of control to a greater degree than T5 and also repeatedly demonstrated concern about assessment and cheating: *I mean, you cannot control them in general, especially in the exam* (T1, I2). As with T5, the data from T1 contained no direct references to centredness.

Table 4.2: *Word Frequency Analysis Around E-Learning and Control*

Teacher	Frequency Counts		
	Control	**Teacher-Centred**	**Student-Centred**
T1	15	0	0
T2	0	3	4
T3	2	0	0
T4	0	0	0
T5	6	0	0

The concept of control proved to be another area of contrast between the experienced and inexperienced online teachers. T3, with 10 years of experience teaching online, mentioned control only twice; this was in a single comment that described control as a positive aspect of teaching online:

> *Naturally, there are so many advantages of using e-learning. First of all, it is fast to communicate with the students. And you have the control ability about the students, if one is disturbing in the class or here and there, you have full control to block that student* (T3, I2).

T2, the most experienced online teacher, and T4, a trained classroom technology user, did not mention control at all. Alexander (2012) notes that relying solely on the internet in lesson delivery can compromise teacher control; as previously documented, this is an expected and potentially positive feature of digitally mediated instruction that should be accepted by the online teacher.

Regarding the concepts of teacher-centred vs. student-centred instruction, note that while T2 references these concepts directly, T4 is cited above as discussing moving away from being 'the store of knowledge' and 'spoon-feeding' students. Likewise, T1 expresses frustration about being 'dominant to be the centre' of the class. T5 also at various points references working toward greater student control and autonomy, for example by using discussion activities and employing GBRs to let students do independent group work. In other words, although this data around the concept of control and teacher–student centredness appears to legitimately point to control as an issue of genuine concern to T1 and T5, the frequency analysis data should be taken as an interesting indicator to consider rather than a source of definitive evidence regarding the teachers' epistemological stances.

The results of this informal content analysis bring to mind a comment made by Weimer (2002) writing on the surrender of a degree of teacher control during the movement toward learner-centred teaching: 'We are motivated to control because teaching makes us vulnerable' (p. 26). Perhaps the teachers in this study who were newcomers to technology-enhanced teaching and learning felt less confident and secure; they yearned for control when left vulnerable by being torn away from their accustomed identity and role in the F2F classroom and forced to use both technology and pedagogy they had insufficient mastery of.

4.2.4.2 Impact on Student Motivation

Another important problem or barrier or a big challenge for us as teachers, I think, is learners' motivation. Yes. Learners' motivation... (T2, I1). Student motivation is an important factor in learning, and fostering such motivation is a core principle of effective instruction (Hartnett, 2016; Kim & Frick, 2011). Motivation is a crucial factor in effective online learning (Bates, 2015; Hartnett, 2016), particularly when increased levels of autonomy and self-direction are required—for example, in fully remote e-learning with no F2F component (Allen et al., 2019; Kim & Frick, 2011). The participants' discussions and comments around student motivation as captured in the data of this study indicated awareness of these two facts. There was also evidence

that these teachers struggled at times to achieve the complex balance—between control and structure implemented by the teacher and autonomy, engagement, and motivation afforded to the students—described by Moore (1993), Dron (2007), Garrison (2003) and others as a central feature of quality online teaching.

Like their teachers, many of the University ELT Department students seemed at first shocked and somewhat dismayed by the transition to ERT, and their motivation was affected:

> *I think they* [the students] *were at the beginning of the year frustrated like the teachers because they have not already experienced such pedagogy before because in our case, the students were accustomed to traditional and face-to-face learning. So, this shift in the pedagogy affected their motivation. It demotivated them at the beginning* (T2, I2).

However, some students were observed to enjoy online learning and approach it with high motivation from the beginning: *Actually, there are the students who are really motivated to use the internet and they are motivated to participate. They are not reluctant to take part in the activities* (T4, I1). This variation is not surprising given the vast number of potential motivational influences in online instruction identified by researchers like White (2009), Dörnyei (2003), Gardner (2001), and Lamy (2013), along with the broad range of individual background situations represented by the diverse student population of an HEI that draws attendees from across Palestine. In any case, supporting Knowles and Kerkman's (2007) observations that student attitudes toward online learning were more positive at the end of an eight-week online course that at the beginning, teachers in the present study observed motivation increasing as students adapted to their online classes:

> *I think they became more motivated than the beginning of the integration of e-learning process. But at the beginning it was shocking so students' motivation was decreasing. After that, it increased bit by bit because they became accustomed to e-learning* (T2, I2).

The teachers gave little indication of viewing technology use itself as a factor that might demotivate students. Research provides evidence of the technical skills possessed by students born since 1996—those referred to as 'Generation Z' (Ng, 2012; Roblek at al., 2019). In line with this, the teachers in this study observed that most of their students were capable of using online applications: *I think all the students have a good idea about and acquaintance with using the internet and using Google Classroom and the other programme Google Meet in the process of teaching and learning* (T1, I1). Barrot et al. (2021) demonstrated that, given access to

appropriate technology and dependable internet service, technological competency was the least of the challenges faced by students thrown into ERL.

> *Students normally like the internet and they are using many apps and they like to explore something from the internet. This is the reality about the new generation that we have today, unless there is someone who is weak in this, but we are talking about 90% of the students today, they like to work with the internet, with ICT or some other techniques* (T3, I2).

There is also ample research indicating that the addition of technology use to courses can increase motivation by making learning activities more interesting and engaging for students (cf. Francis, 2017; Garrison & Anderson, 2003). T3 cited supporting evidence for this:

> *They* [students] *like it that we are online. It is kind of encouraging to the students, and attracted the students to join the session, and they waited eagerly to join the English classes or some other classes. This is I think the way the students respond to it; it encourages and motivates them* (T3, I2).

Still, the teachers at times noted student motivation as lacking in some cases:

> *I think not all students are highly motivated to participate in online learning. Most of them are motivated but not highly motivated. A number of them are de-motivated because they don't know how to engage in the classroom. This group of students do not participate unless you urge them, unless you motivate them to participate* (T2, I1).

In further discussion during the second interview, T2 expanded on this idea:

> *Students as you know are accustomed to a teacher-centred class. I think they are used to not being the centre of the class in my face-to-face or traditional way of delivering the content or pedagogy…I think it was very difficult to engage and involve students in such in such a new way of delivering the content* (T2, I2).

The difficulties T2 had with promoting student engagement could stem from an absence of and inability to produce interesting, motivating content and activities. This is a possibility given that T2 and the other teachers had no pre-developed multi-modal course materials and were limited in terms of the tools and resources they could leverage in delivering their online classes. Such a scenario is supported by findings from a study of teachers' experiences using internet-based curriculum that revealed lack of ability to design and deploy effective online pedagogy emerging as a possible cause of what teachers perceived as student rejection of e-learning (Alexander, 2012).

In some cases, students may be uncomfortable with autonomy and instead expect explicit control and monitoring (Alexander, 2012). In the present study, evidence indicated the likelihood of student motivation and engagement being powerfully influenced by sociocultural factors at work in the context of Arab education, which has a deep tradition of teacher-centred learning (Hamamra et al., 2021). These students therefore might tend to be most at ease with, or at least inculcated into, a passive, receptive mode of learning. *Our students like to be silent and passive. Passive and learning from the teacher and just to listen* (T1, I4). This culture-based epistemology of learning would conflict with the basic principles of online education, with its emphasis on student autonomy and learner-centred workspaces.

Other aspects of student motivation go beyond the willingness to actively participate in the online classroom. Students may have difficulty taking responsibility for their own learning if they have only experienced the role of passive learner in traditional teacher-centred classrooms (Tamim & Grant, 2013). T5 reported instances where students logged in for an online class session but were not attending to the work:

> *I might see that they are online, they access Google Meet or Zoom or whatever, but they are not there, I can see that. I have faced a situation many times that, whenever I call a certain student, they are not there…they access but actually they are not there, they might be sleeping or doing something else* (T5, I1).

Teachers in other countries, for example Clarin and Baluyos (2022) in the Philippines, Nambiar (2020) in India, and Krajka (2021) in Poland, reported the same situation during pandemic ERT: students' lack of participation, or even near-constant complete silence, caused uncertainty about whether or not any learning was taking place or if students were even listening at all.

Investigating the COVID ERT experience at HEIs in Saudi Arabia and Jordan, Almaiah et al. (2020) discovered that Islamic cultural traditions complicated efforts to ensure student engagement in online classes, particularly in the case of some female students. The same conditions were reflected in this study:

> *Due to cultural restrictions or the norms here in Palestine, if you ask the students to open their cams in order to contact them face-to-face, they are reluctant to do that. They don't automate cameras and so you don't know what the students are doing while you're giving the lecture, whether they are attentive, are listening to you and understanding what you are saying* (T4, I2).

In any case, compliance requests and directives, punishments, and even the use of rewards all represent external demands that reduce student autonomy and act to undermine motivation in online learning (Reeve et al., 2008). Monitoring students via web cam would seem to fall within this list of control mechanisms.

The matter of student motivation during ERT seemed to create much uncertainty among the participant teachers. As noted above, some students were observed to be excited to interact with the technology and to enjoy the freedom of studying online:

> *They are highly motivated to participate and take part in such* [online] *classes because when they think about the strict rules that they have to follow during attending traditional classes and the free atmosphere, comfortable atmosphere when they attend the classes in their homes, they are more motivated* (T4, I2).

In other cases, *I think students in general, nowadays, to be frank with you, they are lazy, except a few students* (T3, I4). Adding in apparent changes in motivation over time as described above along with the varied effects of cultural influences in mediating student motivation engendered a general atmosphere of uncertainty around student motivation in the online ERT courses.

Finally, note that the data shows the teachers attempting most of the standard moves suggested to increase student engagement and motivation in online courses: they reached out to struggling students, located and used interesting multimedia materials, employed strategies to increase collaboration and interaction, made themselves available at any time by e-mail, text, and other communication modes—*They have the WhatsApp, they can catch me and I can immediately respond to them* (T3, I2)—and so forth. There is nothing in the data illustrating either positive or negative outcomes from these efforts. T5 summarised the student motivation subtheme in perhaps the most clear and generalisable manner, earning the last word on this matter: *Even face-to-face, when you are in the class, in the lecture they are watching the time and when the lecture is going to end. If students lose motivation during face-to-face learning, how can they be motivated when e-learning?* (T5, I1).

4.2.4.3 Impact on Assessment

What about assessment? Yes, what about assessment? How can we assess our students? This is a big question. How can we assess our students? (T2, I1) At WBU, the answer to that question was a set of test development guidelines and a model exam developed by administrators in the University Assessment and Curricula Centre. (Note here that WBU is a military and security

training institute, so assessment design and procedures as well as other aspects of curriculum and instruction differ somewhat from those at other HEIs in Palestine.) The model exam was created in Google Forms, an independent tool associated with Google Classroom. The model was provided to teachers, who were directed to follow the official test development guidelines in designing their own class exams in Google Forms. As a measure to prevent cheating, teachers were required to make two versions of each exam. Once developed, tests were submitted to department heads, who checked for adherence to the guidelines. When approved, the test could be linked to the class site in GC, where students would access the exam.

Concerning test administration procedures, students would be directed to log in to GC at a specific time, open and complete the exam, then log out. Pre-set timings for online exam sittings varied from 10 minutes to 2 hours. Students used their choice of device—laptop, iPad, or mobile phone—to take their exams. When an examination was complete, the teacher could review results, provide feedback on open-ended items, and post grades in the Google Classroom space.

The official test development guidelines at the University prescribed multiple-choice items for the majority of exam questions, with open-ended items to make up no more than 20% of any test. In contrast, the literature is clear that open-ended authentic items are the preferred and most effective choice for online examinations in social sciences or humanities fields (Conrad & Openo, 2018; International Test Commission and Association of Test Publishers [ITC & ATP], 2022). Conrad and Openo (2018) recommend authentic online assessment tasks designed to verify skills that have real-life applicability. These sorts of well-designed, research-based online assessment practices enhance test validity and safeguard against academic dishonesty (Ko & Rossen, 2017). The research participants in the present study demonstrated awareness of these principles. For example, T3, I2: *We are trying our best to use some challenging questions that the students cannot, let's say cheat, or find it somewhere here and there, or copy it from some other resources which are available on the internet.* T5, I2: *I can't evaluate unless they all participate, or when they debate, or when we have conversations, or having such dialogues, maybe in that way I can give little judges that they are understanding what we are talking about.*

From a literature-informed viewpoint, the university assessment guidelines appeared to be oriented toward decreasing the challenges presented by online exams and classwork rather than generating accurate information on student learning outcomes and skill levels. Related data

appeared in teacher responses to an interview question on the topic of student epistemological beliefs. Interview 3 >Question 9: *Preliminary research indicates that students may be distressed when instructional strategies, especially those that encourage peer-to-peer knowledge generation and sharing, conflict with students' epistemological beliefs. (For example, we might think that our students tend to prefer unambiguous content, questions with a single correct answer, and answers delivered from or explicitly sanctioned by the instructor.) Have you seen any signs of such distress? Can you give examples?*

Here, T1 offered the observation that students had particular preferences regarding exam items:

> *I think that when you have multiple choice, they prefer not to have multiple choice. They all fail. They prefer true or false because we have just one correct answer. They don't like, for example, comprehension questions to write the answers fully as paragraphs or maybe three lines or something like this*.

Responding to the same query, T2 provided a more in-depth take on the matter:

> *I think students, yes, they suffer from this* [epistemological distress] *because sometimes when I give them a certain question, for example, the question that requires them to think and stimulate their thinking skills, critical thinking skills, they complain to me* 'No, we need questions that are directly from the book, from the content.' *So I think students do not prefer the critical thinking question, the one* [where] *I ask them to write the answer in their own words.*

It is difficult to distinguish student epistemological distress from a simple strategic preference for more familiar and easier rote memory-oriented exam work. It is possible that the two phenomena overlap, or it may be that challenging study and assessment do in fact represent a jarring epistemic mismatch for these students. In any case, by overlooking the principles of effective online curricula and assessment design, and simply mandating accommodation of student preferences for less-challenging exam items (and possibly, university administrators' desires for higher pass rates), assessment directors at WBU contravened the recommendations of many leading scholars in the field of online student evaluation.

Grading at WBU during ERT was based entirely on summative assessment. While teachers were free to conduct ungraded formative assessments as part of classwork, students' final course grades were based solely on midterm and final examinations. The interview data in this study included numerous references to student assessment, and even though the teachers

were not permitted to grade students on in-class activities, there was evidence of participant teaching methodologies that aligned with the literature regarding best practices for online assessment and, in some cases, indications of progressive development and refinement of such alignments over time. For example, all of the participants at some point referred to formative assessment as an embedded element of their online coursework, reflecting effective strategies for online assessment as outlined by Bakerson et al. (2015), Kearns (2012), Conrad and Openo (2018), and many others. T2 from the beginning explicitly echoed the literature in discussing processes of ongoing assessment: *Indeed, if a course has its own ILOs* [Intended Learning Outcomes], *ongoing assessment* [via assignments] *is one way to know if your students are doing well or not, are performing well or not* (T2, I2). T4 also accurately described continuous formative assessment:

> *When there are certain activities at each stage of the class where students have to show what they have gathered from that and as a teacher you can see the outcome of the student, then it will be a great benefit for both the students and the teacher* (T4, I2).

T2 discussed the use of varied assessment approaches and instruments, emphasising critical analysis and student-directed learning:

> *I tried to change my way of assessment* [while teaching online]*, how I planned different types of assessment. I tried video observation as a way of assessment. I tried reading responses. I provided students with e-books and asked them to read certain chapters and summarise what they have already read and tell me what they have understood… Another way I try to adapt my strategies of assessing my students is to urge them to think, urge them not to copy and paste, urge them to use their minds* (T2, I2).

T2 mentioned project-based learning, a common choice among formative and summative assessment approaches used for online courses in higher education settings (Bakerson et al., 2015; Heil & Ifenthaler, 2023; Ko & Rossen, 2017). Fontanillas et al. (2016) note that PBL is an effective strategy for developing a culture of peer-assessment, opening the possibility of engaging students in both formative and summative assessment processes. T2, I2: *Autonomous learning and project-based learning were the dominant pedagogy in my teaching*. T4 also supported the use of project-based learning:

> *A very important point to mention here is learning by project. Previously, there was nothing similar to what we call learning by project, but with the help of online teaching*

and learning, the students embark on doing projects. They discuss projects in groups or with peers and they learn (T4, I2).

This is similar to experiences Elzainy et al. (2020) had using *problem*-based learning with Saudi medical students. The students appreciated that form of online assessment and demonstrated improved learning outcomes when assessments were shifted to grading performance during group work on problem-based learning tasks.

Alexander (2012) suggests that, in cases where traditional approaches to teaching and learning are still dominant, teachers can increase the likelihood of meeting student epistemological expectations by ensuring that online pedagogy has (1) directly stated aims that are clearly reflected in the lesson materials and (2) firm links between curricula and assessments in terms of both content and testing methodology. When asked about considerations in planning an online lesson, T3 demonstrated practices corresponding to Alexander's model by describing setting and explaining lesson objectives, aligning assessment with objectives, and using formative assessment techniques to check students' understanding. T3, I2:

I have to show them the objectives. What is the main point of the lesson? I have to discuss with them the objective of the lesson…And at the end I have to evaluate my students by asking some questions and checking whether they understand what I have explained to them or not.

These are all key aspects of effective assessment in online learning (Conrad & Openo, 2018; ITC & ATP, 2022).

In contrast to the trained and experienced online instructors, the novice online teachers did not directly indicate explicit familiarity with the principles of effective online assessment. T5 made some comments about checking student performance that referred indirectly to using assignments as part of continuous, authentic, formative assessment strategies. The caveat is that such references by T5 consistently appeared in contexts that also included remarks on the prevalence of academic dishonesty and the unreliability of online exams. For example, Interview 2>Question 5>Probe 1: *What do you base your observations of student performance on when using e-learning techniques?* T5: *Only when they participate in activities and when they debate. That's it. This is the only way that I can observe* [student performance]…*I don't trust their exam at all the results.* A similar concern with academic dishonesty was apparent in discussions with T1: *Some people might be cheating and, you know, this is very difficult to control by using Google Meet or Google Classroom* (T1, I1).

Such fears were based on fact—despite the guidelines and restrictions in place, cheating was rampant—*Unfortunately, I cannot trust students in exams, they keep on cheating* (T5, I4). One significant source of vulnerability to academic dishonesty arose from inconsistent adherence to online exam administration instructions that called for students to open their device cameras and microphones while being tested. This is a pattern frequently observed regarding online assessment in Arab Muslim cultural contexts, where privacy is closely guarded by female students in particular, and the use of web cam proctoring strategies is seen as intrusive (Elzainy et al., 2020). This issue, along with cost, technical factors, and lack of planning and preparation time precluded serious consideration of deploying commercial online exam proctoring software during WBU exam sittings.

In response to the problem of cheating, after one-and-a-half semesters of online classes and four online exams, in the autumn of 2020, the university returned to paper exams and required students to come on campus and sit their exams under proctored conditions. Two invigilators monitored every exam, masks and social distancing were required, and students were directed to leave campus immediately upon completing their exams. All university departments were required to adhere to the same testing guidelines from the Assessment and Curricula Centre, which meant that speaking and listening exams for ELT department classes were also given on paper. For a productive language skill like speaking, the paper format raised doubts concerning exam validity.

In general, the experience with online examinations at the University corresponded to the situation Bashitialshaaer, Alhendawi, and Avery (2021) found in a study of obstacles to the use of online exams at Gaza HEIs during the pandemic. Connectivity problems, academic fraud, lack of effective monitoring, student distrust in the exams, difficult home study conditions for students, and a feeling among teachers and students that the exams would not reflect the students' true skill levels were among the challenges uncovered.

During analysis work on the subject of assessment, my curiosity was again aroused by the repeated appearance of particular terms, this time around the topic of academic honesty. I decided to look into the frequency at which *cheat* and *cheating* appeared in the data. I added *assess/assessment* and *evaluate/evaluation* as target items of interest, and ran another find/replace word frequency analysis, checking each occurrence of the target words for use in context to confirm relevance to student assessment and academic honesty. My efforts helped confirm a related strand in the data and produced some interesting comparatives (see Table 4.3).

Table 4.3: *Word Frequency Analysis Around Assessment*

Teacher	Frequency Counts		
	Assess/Assessment	Evaluate/Evaluation	Cheat/Cheating
T1	1	5	7
T2	18	20	3
T3	0	15	2
T4	3	0	0
T5	0	14	7

Considering frequency counts in isolation conveys an ambiguous impression, although a clear difference between beginner and experienced online instructors appears around cheating. (Note that none of the references to cheating were anything along the lines of 'There are no problems with cheating'.) T2 made the clear majority of references to the topic of assessment. As in the T2 examples presented above, such comments were nearly all contained in research-informed, erudite discussion and explication that would have been appropriate for a professional development session on assessment. Despite the extensive references to assessment, a contrasting apparent lack of concern with issues of cheating is implied by the T2 data.

In contrast, T1 and T5 appeared to show elevated levels of concern with cheating. As noted above, mentions of evaluation-related topics by T5 often evidenced frustration and took forms similar to the following examples in a trend that was consistent throughout the study period: T5, I2: *To me this* [online learning's effect on student performance] *can't be measured because in evaluating their information, or by the end of the semester, it cannot be evaluated because cheating is existed, and it is very common between them to cheat*. T5, I3: *They* [students] *can't be evaluated remotely, they have to attend and you have to do their exams face-to-face*. T5, I4: *I cannot evaluate their skills online. I can't trust technology in this way*.

There were a few mentions of best practices in online assessment present in the data from these two teachers, although they did not carry the sense of explicitly echoing the literature that I found in discussions from T2. For example, during Interview 4, T1 demonstrated competence gained from 16 months as an online instructor:

I think in collaborative learning, you can interact with the students, and the students with each other when they solve problems and discuss some issues. You can evaluate the

students by using questions to elaborate the students' knowledge and to evaluate their knowledge (T1, I4).

It is a fact that online instructors in general face challenges with monitoring the quality of students' synchronous or asynchronous collaboration (T2, I4: *I think the cheaters and the free riders, I think there's a big room for them*), designing reliable online assessment tools, and carrying out valid assessments (Cochran & Benuto, 2016). T3, I4: *They can cheat, they can collaborate with each other in the sense that they can pass the answers here and there. And the students can refer to the source and get the answer easily and give you the answer.*

The practical difficulties instructors and exam administrators face related to ensuring academic integrity in Arab education settings have been well-documented by indigenous researchers (Algahtani et al., 2020; Lassoued et al., 2020; Muhammad, Shaikh, et al., 2020; Saleh & Meccawy, 2021). Some research shows Arab students themselves expressing negative views of online exams regarding vulnerability to cheating, plagiarism, and unfairness (Bashitialshaaer, Alhendawi, & Avery, 2021; Shraim, 2019).

However, the new online instructors evidenced extreme uncertainty regarding online student work of any type. T5, I2: *Evaluation isn't accurate at all in their exams or even in their homework. I believe they give their homework to specific people who are working in that field just to pay some money and to do their homework.* These concerns with homework are not unfounded; the challenge of verifying the real identity of the individual turning in online work or taking an assessment is frequently mentioned in the online assessment literature (Gikandi et al., 2011). Shraim (2019) uncovered instances of this type of academic dishonesty at a Palestinian HEI, and T2 mentioned it as well:

> *And sometimes you cannot guarantee that students did all the instructions or all the assignments you asked them to submit by themselves. So, it's very difficult to check if they plagiarise or if they cheat or somebody did the assignment for them* (T2, I4).

Despite this, the body of data shows that experienced e-teachers T2 and T3, and even T4, did not overtly express the overwhelming concern with academic dishonesty found in discussions with T1 and T5. Instead, and as documented above, the e-learning veterans more commonly spoke of alternative modes of assessment (e.g. formative, project-based, authentic, individualised) that are effective for use in online education. T3, I2:

> *The way that I can evaluate, actually, I can make different questions from one* [student] *to another. And we can give them short interviews, asking them personally, or we can*

use some breakout rooms and make them in groups so every group should work together with the result that I can evaluate them from their work.

Thus, it is clear that some teachers in the present study were familiar with the requirements associated with conducting effective online courses and implementing corresponding research-backed assessment practices. However, within two semesters, T2 recognised and documented the fact that most of these requirements were not being met during ERT at The University. There were indications that learning objectives were not being met and implications that students were expecting to rely on cheating during exams. T2, I2:

This semester and the previous semester proved that students were not acquiring or were not mastering the content very well because once the university administration asked students to come and sit for the exam face-to-face, we noticed that we have some complaints from students that they were preparing for online assessment and they were shocked that their assessment could be face-to-face.

Nearly a year later, summing up the assessment situation during interview 4, T2 observed that:

Most of the lecturers at our university, they just keep talking for an hour and students are just listening. We do not use different assessment and evaluation techniques, for example, we do not use different ICT tools or activities with the students where we can evaluate them, and I think the teachers or lecturers are still below the level of let's say, the effective teaching line.

In other words, T2 observed that most lecturers were not following the prescription of Ko and Rossen (2017) and many other experts for an ongoing, diverse, difficulty-graduated, holistic assessment package as the means of achieving secure, valid assessment in online courses.

When viewed from an informed standpoint based on the relevant literature and the observations of some of the teachers in this study, it appears that calling students to sit exams on campus in the midst of pandemic lockdown conditions may have had the effect of breaking the flow of the online courses, implicitly invalidating online modes of teaching and learning, and turning every test into a high-stakes assessment, all while doing little to maintain academic integrity. The situation can conceivably be excused due to lack of preparation in the face of an unforeseen emergency. Certainly, untrained administrators and instructors were forced to take on unfamiliar new responsibilities in regard to student assessment. Still, it is unfortunate but likely that, even after more than a year of acclimatisation time, and probably for reasons that

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differed widely between the two groups, many instructors and students at the University shared T5's experience of remaining trapped and frustrated in the liminal zone between two education and assessment paradigms. T5, I4:

> *Really, I don't like it at all. It's exhausting. It's a very exhausting method of teaching because not everything is controllable. Students are not self-disciplined, in our courses, you can't guess who is cheating on exams or not. I feel that I'm wasting my energy, the results are not accurate.*

4.2.4.4 Impact on ELT

> T5, I2: *And yeah, let's say that most Arabs hate the English language, so I'm doing my best to make it easier for them. And that might be the biggest challenge for me. To keep motivating them, literally enforcing them to make it much easier, to make them at least accept learning the language.*

For most people, learning a foreign language is a challenging task that takes time and determination; frustration, anxiety and fear are common side-effects of the process (Horwitz, 2010; Lamy, 2013). T5, I3: *To me, the problem is their fears and psychological issues about or towards any foreign language.* These *psychological issues about or towards any foreign language* can finally only be out-balanced and so overcome by motivation to learn the language (Dörnyei, 2003; Gardner, 2001) ideally leading eventually to comfort with the language. As discussed previously, motivation is very important to all learning efforts (Hartnett, 2016; Paris & Turner, 1994), and as T5 indicates, it is critical to success in language learning (Dörnyei, 2003). Motivation is dynamic and subject to change even within a single class session, and insufficiently motivated students are likely to abandon their efforts to learn the new language (Dörnyei, 2003; Pawlak, 2012). Teacher presence, student social presence, choice of technologies to use, and the designs of virtual learning environments, pedagogies, curricula, and learning activities are all among the external factors that influence motivation and satisfaction for learners engaged in online distance education, and they are critical to effective distance computer assisted language learning (Allen et al., 2019; Hartnett, 2016; Lamy, 2013).

The online ELT model observed in this study might fall under Levy and Stockwell's (2006) broad characterization of CALL as including any language learning-related use of computers and associated peripheral technologies and tasks including design and creation of software applications, course content, and other types of materials. Beatty's (2010) description

as any process where a language learner uses a computer and realises improved language skills as a result may be applicable, except in the present case there is no empirical and very scarce anecdotal evidence of any improvement. My general observations during this research project and as a teacher at the research site, along with the data collected in this study, make it clear that the WBU ELT Department ERT offerings were not proper CALL or DCALL as per comprehensive discussion and description from leading authors in the fields (cf. Davies et al.; 2013; Lamy, 2013; Warschauer, 1996; White 2003, 2009).

In the same way that other courses at the university did not draw on the full possibilities of online learning, the lack of many of the characteristics of effective DCALL design and delivery meant that ERT in the University ELT department leveraged only a small fraction of the affordances offered when study of the four basic language skills—speaking, listening, reading, and writing—is taken online. To start with, covering a previously discussed matter that applies beyond the refinements of CALL or DCALL delivery, references to problems with technology reappeared in teacher responses to queries about advantages and disadvantages of online instruction specific to ELT. For example, T2, I3: *And until these days, we still find problems uploading and modifying some audio and video exercises that we urgently need. So, this will automatically reflect on the students learning of language.*

As detailed in preceding sections of this thesis, being faced with technical problems is a common experience for online teachers and learners in Palestine and across the developing world. They struggle with generally underdeveloped infrastructure, remote and poorly-served locations, low bandwidth and high data fees when internet is available, limited access to support, limited access to computers, and other challenges (Barrot et al., 2021; Day et al., 2021; Kebritchi et al., 2017; Moghli & Shuayb, 2020). *I think technical issues sometimes happen you know, and sometimes the mic is not working, and these minor issues can be obstacles for the online* (T3, I4). These struggles do nothing to build confidence and reduce uncertainty among teachers and students, are bound to affect motivation and engagement for everyone involved, and certainly degrade learning outcomes in terms of language mastery for students and progress in technical skills for teachers.

Another sub-theme that also re-emerged as a specific impact on the online language learning process was lack of appropriate skills, digital and linguistic, on the part of teachers and students. Interview 4>Question 11>Probe 2: *What are the disadvantages of online instruction for language teaching and learning?* T1, I4: *The teacher must master how to use online*

platforms that are required for teaching…The only disadvantage is when the teacher doesn't know how to deal with the computer or to deal with technology in general. Poorly developed technical skills on the part of EFL teachers in developing countries, along with lack of opportunity or motivation to remedy that condition, are not new or unusual phenomena (Kabilan & Rajab, 2010; Wilson & Acheampong, 2014). As in the case described in this thesis, this situation has now been highlighted by the impact of ERT and subsequently extensively documented in the burst of pandemic-era research (cf. Gao & Zhang, 2020; Meihami, 2021; Tafazoli & Meihami, 2022).

T5, I1: *Some of the academic problems that I concluded or I noticed that students and some teachers lack language skills. Language skills, I mean to participate in online learning.* The distance learning mode in use at the University was a model that Lamy (2013) categorises as the supported online course, i.e. featuring the co-presence of peers and a teacher at least some of the time. In this type of language learning course, the need to possess target-language speaking and listening proficiency is a given for teachers, and students must have skills sufficient to participate (according to pre-set competence-level expectations) in effective communication and interaction during synchronous work.

> T4, I1: *Here in Palestine, they focus on teaching the grammar, but they don't focus on teaching the other skills. That's why you find out that all students are lacking the productive skills, especially the skill of speaking and the skill of writing.*

Some research indicates that development of speaking skills can be hampered by the focus on reading and writing that tends to be present in online courses (Karataş & Tuncer, 2020). Other studies show improvement of EFL learners' listening and speaking skills in such courses (Carrillo & Flores, 2020). There is no question that lack of visual input is challenging to language learners (Al-Samiri, 2021) or anyone else at a developmental level of language proficiency; the importance of visual cues to verbal communication is well-understood in the ELT field. *Using body expressions can assist teaching inside the classroom. Maybe eye contact or psychological effects may influence traditional learning better than e-learning* (T1, I2). As Lamy (2013) notes, student outcomes will be influenced by the design of the virtual learning environment and pedagogic approach in use—factors likely to vary case by case.

A majority of the teachers in the present study commented at various times on the obstacles posed by the inability to take advantage of eye contact and body language in online courses where custom generally excludes the use of web cameras. *In teaching languages, I think*

we need meetings in face-to-face because we need that human element, that human interaction (T2, I2). These findings again raise the possibility of epistemic mismatch between teacher expectations and the affordances of online e-learning, and pose questions as to what degree such mismatch is generalised or ELT specific. T5 was the most emphatic about the need for visual contact and often used it to support her preference for F2F teaching.

> *As a blind* [online] *teacher, I can't judge who really reached the goals or really understood what I'm teaching or doing in the class. I really focus on their body languages and their eye contact. That can help a lot to understand their mind, whether they are really concentrating or not* (T5, I3).

In terms of this rationale for preferring F2F communication between instructors and peers in class, T5 was in alignment with participants in many studies of pandemic ERT across the Arab region (cf. Al-Jarf, 2020; Al-Nofaie, 2020; Al-Samiri, 2021; Bin Dahmash, 2020).

The results and discussion presented in this section up to this point should not be taken to indicate that the WBU EFL teachers did not leverage some of the useful affordances of online learning. As I mentioned above, four of the participants are firm supporters of technology-enhanced education and feel that digital tools have a role to play in the future of education in Palestine whether in fully online courses, blended learning structures, or in support of F2F classes. Even T1, who initially struggled, fully embraced the new paradigm:

> *Even if there is no disease or no pandemic COVID-19, I think we have to use computers and online teaching inside the university…Even* [if] *it is face-to-face, you have to mix with online teaching and using technology inside the* class (T1, I4).

As the ERT conditions became routine and the initial transition shock faded, online beginner T1 began to explore the possibilities of online ELT.

> *I think e-learning can improve the students' learning and, when we use methods of teaching such as audio-visual, that fits the e-learning. Because when you use a computer, you can use an audio-visual approach that deals with videos and charts, this is very good for helping students grasp English, especially in speaking* (T1, I2).

Noted at various points in the data were the benefits of online learning for allowing access to a wide range of resources (T3, I4: *The advantage of online learning is we have many facilities, we have so many options*.), carrying out practice and formative assessment of all four basic skills, and offering useful creative possibilities (Al-Samiri, 2021).

For example, I asked my students in one course to record themselves and send the recording to me so I could evaluate the recording. I asked them to do it again and again. I checked their stress, intonation, pronunciation and so on (T2, I4).

The most commonly mentioned advantage of teaching English online was support for increased participation by shy students who might be hesitant to speak in the F2F classroom:

I found that students got better marks than using traditional learning when we deal with them by speaking or making a quiz in speaking or reading because maybe some students are shy, so when they sit in a stress-free environment inside their home they're more relaxed and they can speak better than inside the classroom (T1, I2).

T3 extended the same idea of supporting shy students to the use of Google Breakout Rooms:

If I split [the class] *into small groups like three or four students, then they have the courage or the motivation to speak out and to discuss or interact with the small group. But they are feeling shy to speak with the larger group* (T3, I2).

T5 offered her typically humanistic insight on this topic:

Maybe behind the devices, some students have higher courage than speaking in front of the teacher face-to-face, avoiding eye contact. It depends on their personality and character. Some of them are, as they confess to me, more preferable that they can participate without any fears. Because as you know, it's only a microphone available, not a screen, so I can't see them, so they avoid any embarrassment. Some prefer that and maybe this is the thing that benefits their performance in their learning (T5, I3).

This is similar to findings by Todd (2020) indicating that in the online environment, students were more willing to ask questions about things they did not understand. Tafazoli and Meihami (2022) found that Iranian CALL teachers recommended online discussion panels as a way to help shy students begin speaking in a foreign language. The WBU teachers also aligned exactly with teachers at many Saudi Arabian universities (Al-Nofaie, 2020; Hakim, 2020) who observed that 'The (partial) anonymity afforded by e-learning provides a safe space that contributes to reducing students' anxiety around speaking a foreign language' (Al-Samiri, 2021, p. 154).

4.2.4.5 An Online ELT Snapshot

As the discussion of ERT impact on ELT illustrates, the data shows several points of agreement among these instructors on the downsides and benefits of taking their EFL courses online. However, there is also a wide diversity of observation and opinion, not least because the teachers

ultimately had to sit isolated (except for family members and others in the house), face their own screens, and participate in virtual classrooms in an experience shaped by their unique individual perceptions, interactions, and reactions. To highlight this diversity of perception, I decided to capture a focused snapshot of the participants' varied individual impressions regarding engagement in the ERT version of DCALL at WBU. These impressions, gathered from Interview 4 after the period of school closures and ERT had concluded, are presented here in the teachers' own words with no further comments; they are also summarised below in Table 4.4. (Note that T4 did not participate in Interview 4.)

Interview 4>Question 10>Probe 2: Which of the four language skills do you think is most easily addressed in an online context?

T1: *I think reading is the best or the easiest in online teaching, especially in languages.*

T2: *Speaking skills.*

T3: *For them* [the students] *I think it is writing. I think it is the most easy for them because they have time to write and think about their writing.*

T5: *Speaking, speaking.*

Interview 4>Question 11: What special strategies and methods are needed to teach and support EFL students in a setting where only online instruction is being used?

T1: *I think audio visual approach using recorded videos. That helps a lot of students to understand and take part in the class.*

T2: *I think self-directed learning is a good strategy. Collaborative learning is also a good strategy.*

T3: *First we have to focus on the four skills of English for reading and listening and speaking and writing, so I give them short tasks* [in each of the skill areas].

T5: *Honestly, first of all, I have to improve my strategies as an instructor before developing the students' performance in learning, so I'm not that into deep strategies.*

Interview 4>Question 11>Probe 1: What are the advantages of online instruction for language teaching and learning?

T1: *The advantages of teaching online are enormous and very great. You have to use a computer, you have to use videos or audio-visual. It is inevitable that accelerates learning and enhances a lot of moving forward of teaching. And students comprehend easily, better than using a blackboard or the old methods of teaching.*

T2: *I think one important advantage of online teaching to language students is students can look for material by themselves and they can practise.*

T3: *The advantage of online is we have many facilities, we have so many options. If you find some website or image or video that can help the students, you can use it immediately.*

T5: *I have improved, I have improved my skills in using technology, and maybe the students have too, but* [advantages] *for the teaching or learning process, No.*

Interview 4>Question 11>Probe 2: What are the disadvantages of online instruction for language teaching and learning?

T1: *The only disadvantage is one I think, that is the teacher himself doesn't deal with technology.*

T2: *I think the interaction could be influenced among students and teachers. I think the cheaters and the free riders, I think there's a big room for them. And sometimes you cannot guarantee that students did all the instructions or all the assignments you asked them to submit by themselves.*

T3: *I think technical issues sometimes happen you know, and sometimes the mic is not working, and these minor issues can be obstacles for the online especially maybe the students are from different areas, some of them from the rural areas where the net is very weak or they don't have even a laptop or whatever like this*.

T5: [NA, See Question 11, Probe 1]

Table 4.4: *Online ELT Snapshot Summary*

Language Skills Most Easily Addressed Online	Special Strategies for Online EFL Instruction	Advantages of Online ELT	Disadvantages of Online ELT
• Speaking • Writing	• Audio-visual approach • Self-directed learning • Collaborative learning • Focused skill coverage via short tasks	• Supports audio-visual activities • Improves student comprehension • Advances teachers' methodological skills • Supports independent learning • Provides access to many resources • Improves teacher and student technical skills	• Technically challenging for teachers • Vulnerable to academic dishonesty • Vulnerable to technical problems • Presents student access problems • Provides access to many resources • Causes teacher epistemic distress

4.3 Conclusion

This chapter has presented the results of qualitative thematic analysis directed at extrapolating prominent themes from the teacher interview data (review Figure 4.1) and interpreting them in reference to relevant literature and within the overall context of the ERT experience at West Bank University. As in the model put forward by Creswell and Poth (2018), Braun and Clarke (2006, 2012) and others, processes of thematic analysis proceeded from a priori category development based on the interview protocols, through initial coding, into the work of refining the a priori categories, discovering new categories, combining similar emergent thematic strands, and discarding dead-end and poorly supported categories. As per Corbin and Strauss (2015), cycles of analysis continued until data saturation was reached and little new information was being produced.

Finally, I uncovered an overarching theme of teacher uncertainty about the effectiveness and utility of the ERT form of online e-learning as it was carried out at the research site, The University. This sense of uncertainty appeared to be at least partly influenced by four contributory factors that I considered to be primary as they affected all five teacher participants in common. To reiterate and review, these contributing factors are graphically represented in Figure 4.2 below as the emergent subthemes of *challenging transition, labour-intensive teaching, inadequate infrastructure, and classroom impact.* The particular conditions and discrete phenomena that contributed to the manifestation of these subtheme factors have been discussed at length in this chapter, with support provided by the participants' voices in outtakes from the teacher interview data, and similar example cases and other evidence drawn from the literature as appropriate.

Chapter 5 presents answers to the research questions offered in the form of detailed discussion based on findings and researcher insights emergent from this study. I then present my vision of a possible way forward with digitally-mediated learning that may be applicable in the Palestinian context and beyond. This is followed by presentation of a substantive theory emergent from the findings of this study along with a data-grounded formal theory of teacher preparation for the digitalised future of education that authors such as Aagard and Lund (2020), Lund and Aagard (2020), Marc Prensky (2011, 2020) and others view as quickly approaching. Finally, I present and describe the PEACE Framework, an original paradigmatic framework that operationalisations the grounded theory discovered in by this research project.

Figure 4.2: *Summary of Key Thematic Findings*

Emergency University Closure Initiates ERT

Challenging Transition
Unprepared Teachers & Institutions
>Unplanned & unmanaged change
>Forced epistemic transformation
>Inadequate institutional preparation
Unfamiliar Online Teaching Tools
>Not education-specific
>Not institutionally hosted
>Not private & secure
>Do not support design innovations
>Do not support ongoing course
development or transfer

Labour-Intensive Teaching
Increased Preparation Time
>Lack of prepared course content
>Unfamiliar teaching style
>Need for specialised pedagogy
Poor Access to Hard & Soft Humanware
>Forced self-directed learning
>No culture of innovation
>Lack of socio-emotional support
>No existing virtual community
Inadequate Institutional Support
>Lack of prepared course infrastructure
>Lack of instructional design support
>Lack of support for developing
methodological & pedagogical development

Inadequate Infrastructure
Inadequate Community Infrastructure
>Unreliable power supply and internet
connectivity
Inadequate Institutional Infrastructure
>No learning management system
>Web-based platforms & tools only
>Limited range of available tools
>Limited technical support
>Uncertain future development plans

Classroom Impact
Forced Teacher Role Change
>Uncertain about professional identity
>Pushed away from area of competence
>Move towards student-centred teaching
Affects on Student Motivation
>Uncertain student participation
>Poor participation
>Poor work habits
Questionable Assessments
>Vulnerable to academic dishonesty
>Inequities in access
>No adherence to best practices
Questioning Effectiveness of ERT for ELT
>Poor support for CLT
>Technical challenges
>No F2F communicative interaction
>Non-valid EFL assessments
>Poor student engagement levels

Uncertainty About ERT
E-Learning

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CHAPTER 5 DISCUSSION

5.0 Introduction

The COVID-19 pandemic challenged our ability to safely work in F2F classrooms at higher education institutions. Efforts to meet this challenge resulted in significant impacts on course design and delivery at HEIs across the world as institutions were forced into the creative deployment of online learning and communication platforms that profoundly transformed teaching and learning at institutions and in disciplines traditionally viewed as bound to the physical environment (Turnbull et al., 2021). The challenges in such circumstances often centre around the need to replicate physical classrooms in virtual online spaces via the use of existing distance education tools and infrastructure (Arasaratnam-Smith & Northcote, 2017). This was the case at the research site for this qualitative case study, West Bank University in Palestine. This study was designed as an investigation of the challenges and various other aspects of the emergency shift into online spaces at the university as perceived by five ELT teachers working there throughout the emergency remote teaching programme. As evidenced by the findings presented in Chapter 4, I was successful in achieving the study aims and objectives outlined in Chapter 1 of this thesis.

This chapter comprises a targeted discussion of the research findings in relation to the research questions that guided the study. It also includes an exploration of the broader implications of the study as viewed through the lens of perceptions and reactions I developed as the researcher conducting this study, and as a WBU EFL teacher also working through the period of ERT. This exploration aligns with the qualitative research paradigm of researcher-as-instrument, in the role of socially situated interpreter of data, performer of text, and creator of narratives (Creswell, 2013; Denzin & Lincoln, 2011), and 'as much a part of the research process as the participants and the data they provide' (Corbin & Strauss, 2015, p. 29).

I first present answers to the research questions that guided this study. This is followed by my outline of a possible way forward that proposes objectives and ideals for consideration as part of planning an effective implementation of online e-learning at WBU or any other HEI in a similar position and context. My ideas here can also serve as inspiration for the rethinking of education as a whole. I acknowledge that my conceptualisation represents an idealised vision, but it captures many important ideas and elements that are valuable points for consideration. Finally, I will describe an emergent theory grounded in the data generated by this study, and an original paradigmatic framework for the operationalisation of that theory.

5.1 Answering the Research Questions

The data collected in the study represents the perceptions and beliefs of five Palestinian EFL teachers who worked through the pandemic ERT regime at one of the country's HEIs. As such, it provided useful insights into various requirements for and benefits of the development and deployment of effective online e-learning programmes at WBU and other Palestinian HEIs. The data also yielded answers to the research questions that guided the study. These answers were implicitly elucidated in Chapter 4 via the presentation and discussion of the research findings. The answers are concisely summarised below as direct responses to the research questions.

(RQ1) *How do the WBU English language teachers view the adoption and use of e-learning as a pedagogical tool under the conditions of ERT?*

Several emergent themes reflected the participant EFL teachers' views regarding the adoption and use of e-learning under ERT conditions. Their reaction in general aligned with findings from pandemic-era studies of teachers around the world. All five of the teachers were challenged and in some cases a bit shocked when faced with the immediate emergency adoption of online distance education as the sole delivery mode for their courses. Turning from F2F classrooms with very little technology in use to complete reliance on e-learning almost overnight represented an abrupt, significant change for all the teacher participants in this study regardless of their e-learning experience level.

Recall that four of the participants had a decade or more of classroom teaching experience, while T5, the least-experienced participant, had been in the profession for three years. The teachers can be assumed to have had adequate mastery of Content Knowledge: knowledge about the actual subject matter that is to be learned or taught (Mishra & Koehler, 2008). Likewise, the intersection between F2F pedagogy and content knowledge, framed by Shulman (1986) as Pedagogical Content Knowledge, can be accepted as familiar ground that these teachers had occupied and explored for years prior to the initiation of pandemic ERT.

For T1 and T5, the pandemic ERT experience was their first venture into e-learning and a major turning point in their practices, which until the advent of the pandemic emergency had included little to no integration of digital technology. When considered through the lens of Koehler and Mishra's (2009) TPACK framework, T1 and T5 can be seen as encountering completely unknown territory at the intersection between content and technology. This is the realm of Technological Content Knowledge, which concerns the impact of technology on the practices and knowledge of a given discipline and the ways in which technology and content

constrain and influence each other (Mishra & Koehler, 2008). In the same way, T1 and T5 lacked any stores of Technological Pedagogical Knowledge, the body of understandings about the ways teaching and learning change when particular technologies are used (Mishra & Koehler, 2008).

Deficient to some degree in even basic digital literacy skills/technological fluency, these two beginner online teachers naturally faced difficulty and stress as they struggled to build foundational technical skills while at the same time going through what was essentially on-the-job training to build competence in the TPACK intersectional knowledge areas described above. During this process, an interesting divergence appeared between T1 and T5 in terms of their views of the adoption and use of e-learning as a pedagogical tool under the conditions of ERT. Even though struggling somewhat more in trying to utilise digital technology and teach online courses, T1 remained mostly positive and enthusiastic about the use of e-learning in general. In contrast, T5 was consistent in voicing frustration and dissatisfaction with e-learning as experienced during ERT.

The other three teacher participants (T2, T3, T4) were digitally literate. T2 and T3 were very experienced blended-learning instructors at the outset of ERT but had no experience with extended periods of fully online instruction. As demonstrated in Chapter 4, these two teachers evidenced reasonably adequate TPACK preparation. Going into ERT, T2 and T3 possessed at least some of the necessary competencies described by Mishra and Koehler (2008) as characteristic of effective teaching with technology; for example, 'an understanding of how to represent concepts with technologies, pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help students learn' (Mishra & Koehler, 2008, p. 10). T4 had training and experience in technology-enhanced classroom teaching but was completely inexperienced with fully online classes. Therefore, T4 can be viewed as possessing Technological Content Knowledge but falling short in Technological Pedagogical Knowledge, at least in relation to fully online delivery.

Despite the advantages these three experienced e-learning practitioners had, and their generally positive overall views of e-learning, they perceived the adoption and use of e-learning as a pedagogical tool under the conditions of ERT as being time-consuming and stressful. A lack of extensive experience with full-time online pedagogies along with forced reliance on an unfamiliar set of tools in the form of GC and GM were factors that combined with inadequate

institutional support, an absence of prepared materials, and substandard, unreliable utility and network infrastructures to present obstacles or challenges for T2, T3, and T4 during the implementation of ERT at the University.

Given their situations as described above, and under the conditions of pandemic ERT in a setting where general conditions are not ideal for online learning in any case, it is no surprise that the teachers in this study viewed the adoption and use of e-learning as a pedagogical tool under the conditions of ERT as disruptive, stressful, and of uncertain utility to teaching and learning processes. The experience was marked by an overarching theme of teacher uncertainty about the effectiveness of the teaching and assessment regimes as well as about the levels of genuine buy-in and participation on the part of many of the students. This was most probably not very conducive to the creation of a favourable impression of e-learning as a pedagogical tool, particularly among teachers new to e-learning.

However, despite the challenging conditions, all of the participants emerged at the end of the research period with improved TPACK inventories as per Koehler and Mishra's (2009) description of TPACK as the intersection and synthesis of Technological, Pedagogical, and Content Knowledge rather than discrete or isolated knowledge in one or more of these areas. Moreover, all but one (T5) of the participants clearly indicated their support for, and belief in the benefits of, the future use of online and other technology-enhanced genres of education delivery at their institution and in Palestine's education system as a whole.

(RQ2) *How did the rapid transition from traditional face-to-face teaching to the use of e-learning methodologies impact the professional practices of the WBU English language teachers?*

Concerning impacts the rapid transition from traditional face-to-face teaching to the use of e-learning methodologies had on the professional practices of the WBU English language teachers, the teachers in this study experienced many practical effects associated with the effort to hone basic digital literacy skills while at the same time acquiring and engaging new Technological Content Knowledge and Technological Pedagogical Knowledge. In their discussion of the TPACK framework, Koehler and Mishra (2009) note that these are among several bodies of knowledge that must not only be mastered but must also be flexibly interwoven and leveraged in response to changing situations and requirements if a teacher is to be successful at integrating technology use into their practice. The teachers in this study had to acquire these capabilities and learn how to apply them in full-time practice in virtual teaching spaces while

also finding ways to be effective in engaging their students in such spaces, adapting or developing relevant subject matter content for use in virtual classrooms, and making the practical logistical adjustments necessary to this operating mode. At the same time, these teachers had to contend with challenges like utility and network outages that would have been arguably less impactful on work carried out in F2F classrooms.

Aside from these obvious and predictable practical impacts of the transition to e-learning, the most frequently described effects on teachers' professional practices were related to shifts in teacher and student roles due to the reduction in teacher-centeredness and increase in equitable student participation that are well-documented aspects of online teaching and learning. The teachers were forced to go beyond reconfiguring their practices to reconsidering and restructuring their roles within the teaching space and teacher–student relationship.

(RQ3) *How did the experience of ERT affect the WBU English language teachers' beliefs about the use of e-learning in the Palestinian educational context?*

For T1 and T5, the two participants in the present study with little prior TPACK development and no exposure to online teaching, the experience of pandemic ERT would be more accurately described as shaping rather than affecting their beliefs about the use of online e-learning in Palestinian education. Although finally largely successful at bringing her Technological Content Knowledge and Technological Pedagogical Knowledge up to the demands of the task at hand, T5 emerged at the end of the study as sharply critical of a perceived diminution of the benefits of social presence or soft humanware that occurred in her online as compared to F2F classrooms. T1 at first struggled significantly with the acquisition of digital literacy and, by extension, a usable TPACK inventory. However, he remained confident throughout and expressed belief in the benefits of online education and its future importance in Palestine if practical obstacles including the need for teacher TPACK development could be overcome.

T2 and T3 entered the study as highly experienced online instructors with fairly comprehensive TPACK inventories. T2 had a record of collaborative project work, conference presentations, and publication on topics around technology-enhanced education. Both of these teachers had well-established beliefs about the use of e-learning in Palestine and were entirely supportive of efforts to integrate both hybrid and fully online delivery modes. T4 had substantial Technological Content and Pedagogical Knowledge, having undergone training in technology-

enhanced classroom teaching and served as a programme leader and teacher trainer in that field; he was also fully onboard with the use of online e-learning.

These three experienced educational technology users tended towards sensitivity to institutional shortcomings. They pointed out inadequate hard humanware components that, if sufficiently developed, could have provided more effective assistance in the transition to ERT. T2 and T3 also noted the limited, make-do institutional soft infrastructure stack that had ongoing impacts on the effective delivery of online e-learning by reducing teacher options in terms of choosing platforms and tools for use in their online courses.

In the end, the participants all indicated that e-learning could be useful in the Palestinian educational context and would be an important feature of the country's education system going forward. However, they were also cognisant of the practical limitations placed on the potential of e-learning in Palestine by a range of obstacles as discussed in preceding chapters, including inadequate community and institutional infrastructure, poorly prepared students and teachers, stakeholder resistance, and sociocultural factors.

(RQ4) *How does the landscape of challenges and possibilities in the adoption and use of digitally mediated teaching methodologies as pedagogical and professional-development tools for the WBU English language teaching programme appear as viewed through the lens of pandemic ERT?*

As noted by several indigenous scholars and researchers in Palestine, the pandemic ERT model served at the same time as a lens that magnified existing challenges and as a key that opened the door to future possibilities regarding the adoption and use of digitally mediated teaching methodologies as pedagogical and professional-development tools in Palestine's education system. This was also true for the WBU ELT programme specifically.

Pandemic ERT highlighted practical challenges, such as the obstacles noted under RQ3 above and revealed in the literature reviewed for this study as common to many developing countries. It also served to expose the fact that ERT is not true online distance education and to support the necessity of developing an effective online distance learning delivery system upon which true DCALL and relevant teacher professional-development programmes can then be constructed. In regard to DCALL, ERT-style ELT aided in the identification by deficit of specialised technical capabilities for language teaching and learning that should be present and completely reliable in any online learning system intended for ELT use—e.g. support for high-

quality audio/video, on-demand recording and playback, interactive group discussions, student oral presentations, and four-skills assessment.

ERT also motivated recognition of the positive potential associated with the adoption and use of digitally mediated teaching methodologies at WBU and in the Palestinian education system as a whole; these positive features would support teaching and learning in all programmes including ELT. For example, the ability to maintain access in the event of external disruptions is an obvious benefit, as is reduction in the need to commute to school in a country where distances are short but traveling from place to place can still be very difficult and time-consuming due to Israel Defence Forces security checkpoints and roadblocks.

Regarding ELT pedagogy and professional development, pandemic ERT brought attention to the potential for online learning to offer enhanced access opportunities and the ability to leverage vastly expanded resource pools in support of language teaching and learning, as well as teacher training. These resources include various types of tools that are designed around the purpose of building interactive, communicative, social communities—a feature of effective language teaching whether delivered in F2F or digitally mediated mode.

Moreover, pandemic ERT forced a focus on technology-enhanced distance learning in wealthy developed countries, resulting in demand for better tools. One result is the emergence of new social learning platforms (e.g. EducateMe, Engageli, Teachfloor) that take advantage of technological advances to afford ever more seamless, natural, communicative and collaborative experiences to groups of almost any size, with participants located in nearly any geographic location. Many of the new features developed for online learning in general appear to be tailor-made for language learning, and reflective language teachers will recognise that ERT raised new possibilities in a field where online learning has not previously been considered an effective approach.

(RQ5) *How can theories regarding effective e-learning pedagogy contribute to the development of a model for transitioning from the ERT model into ongoing e-learning adoption and use in the WBU English language teaching programme?*

The key theoretical underpinnings of effective e-learning pedagogy can be traced back to the concept of object-centred sociality, a model of online social network development proposed by Engstrom (2005) based on the work of sociologist Karin Knorr Cetina (1997, 2001). Whether in virtual or analogue spaces, object-centred sociality arises out of the gathering and curation of groups around what Knorr Cetina (2001) refers to as an epistemic object, or

object of knowledge: something (e.g. a topic or question) with a changing, unfolding character that invites ongoing research and investigation. Shared practice around such an object motivates and mediates the construction of a network of social relations between the individuals involved (Knorr Cetina, 2001).

Object-centred sociality meshes well with the social-constructivist epistemology of teaching and learning that values the development of a socially bonded learning community around a course or other educational undertaking as an object of knowledge, as per Knorr Cetina (2001). In such groups, knowledge is usually constructed collaboratively as a community project via a style of individual participation marked by participant autonomy and ownership of learning processes (Engstrom, 2005; Knorr Cetina, 2001), again a fit for social constructivism.

In an education setting, participation and knowledge generation as guided by a constructivist philosophy would typically be collaborative and centred around problem- and project-based experiences characterised by authenticity and relevance to student needs, with pedagogic strategies emphasising movement away from teacher positioning as sole provider of knowledge and into a role of facilitator of the acquisition of knowledge and advisor of learners in their quest for information and skills development (Otting et al., 2010). As explained in earlier parts of this thesis, these are all also characteristics of effective online education (Dron, 2007; Lund & Aagaard, 2020).

Social constructivism is also the theoretical foundation of communicative language teaching (Littlewood, 2011; Richards, 2006; Spada, 2007), so theories of effective e-learning pedagogy offer a ready-made theoretical framework for application in the deployment of DCALL and other forms of e-learning in the University ELT programme. In addition, as pointed out above under RQ4, modern platforms for online learning are increasingly designed as social learning centres aimed at supporting object-oriented communities where, in order to accomplish tasks, members need to engage in ongoing extensive and intensive communicative exchanges of all types via multiple modes and mediums. Taken as a whole, current theories, tools, and pedagogies of e-learning appear ready made for adoption in language teaching and learning.

Concerning the development of a model for transitioning from ERT into ongoing e-learning adoption and use in the WBU ELT programme, ERT at the university appeared to be implemented with little or no consideration of any relevant theory, or even reference to research-based literature regarding digitally mediated education, e-learning pedagogy, CALL, DCALL, or any other related matter. In effect, online e-learning practice in the period of ERT was dictated

solely by the extant situation and the selection of tools that were readily available at low cost, with curriculum, pedagogy, and content initially dragged directly out of analogue classrooms and into virtual class spaces.

The University's ERT model is therefore wide open for improvement. It would be a step up to access any and all current theories regarding the design and construction of hard- and software infrastructure, as well as the development of programme, curricula, materials, pedagogy, and assessment strategies. A human-resources development plan should be oriented towards (1) fostering the inculcation of online-specific epistemologies of learning, knowledge, and information; (2) learning the characteristics, value, propagation, and application of hard and soft humanware; and (3) supporting the transformation of teacher and student roles in response to new paradigms of teaching and learning. At a more granular level, I would call for application of the TPACK framework principles and other up-to-date sources of theoretical guidance, including the grounded theory emergent from the present study, to the development of teacher/student digital literacy and agility.

A package of all of the above would make an essential beginning contribution to the process of transitioning from the ERT model into ongoing e-learning adoption and use in the WBU ELT programme. Everything needed is readily available in the literature and in some cases is accessible via professional-development opportunities. Once an effective online distance education model is in place, or in tandem with its emplacement, we can begin delving into DCALL-specific theory and programme development.

5.2 A Way Forward with Digitally Mediated Learning

> T2, I4: *You know Hidayat, since 2013–2014, I prepared a proposal for the university administration. The proposal was combining both online and face-to-face so that we can prepare ourselves and our students for the future workplace, so they will not feel alienated from other communities of students. Through my or based on my experience with students outside Palestine, I noticed that our students are, yeah, let's say they are deprived from this opportunity or those chances of being prepared for the future workplace compared with the students outside Palestine. So, I feel sad for them, because we are not well prepared. They are not really prepared for the outside world although they are considered as digital natives.*

During the height of the education emergency brought on by the COVID pandemic, Turnbull et al. (2021) produced a very useful literature review of 26 empirical research papers focused on the challenges faced by HEIs in the Middle East, Southeast Asia, China, India, Europe, Australia, the UK, and the USA, and the strategies those institutions employed to cope with the situation. The findings of the Turnbull et al. review neatly summarise what I had observed scattered across the broad body of literature reviewed for this study; they are also a close fit with the situation I encountered in my research. Turnbull et al. (2021, p. 6415) identified five important challenges faced by HEIs when making the transition to ERT:

- overcoming barriers to technology access,

- improving online competencies for learners and faculty,

- integrating synchronous and asynchronous tools into seamless online delivery,

- overcoming academic dishonesty issues in online assessment, and

- ensuring privacy and confidentiality

As documented in this thesis, these are perennial issues in online distance education along with being common artefacts of the move into pandemic ERT. All of these challenges also appeared identically in the present study, except for a cultural variation on the final issue of online privacy. In Turnbull et al. this appears as concern for anonymity when appropriate, and the security of personal information and data in online spaces, as is the common conception of online privacy in the West.

In the present study, privacy concerns arose only in relation to the Islamic custom of keeping females away from the public gaze, particularly in the home setting where they may be uncovered, or without hijab. This is an interesting point of comparison that recalls Warschauer's description of humanware and its role in 'innovatively designing, adapting, and applying technology in the classroom, *appropriate to local context'* (2002, p. 472; Emphasis mine). This brief aside serves to highlight the importance of cultural competence for e-learning systems designers and online educators, a topic that will be explored further in the next section.

Turnbull et al. (2021, p. 6415) conclude by offering a best-practice framework for online education based on four core strategies:

(*Note: I have removed the original numbering to emphasise the equal importance of each strategy.*)

- Institutional support should be visible and multifaceted with a particular focus on online learning material development and technology support for faculty and students.

- Training in educational technologies and their effective use should be available to faculty and students who need it.

- In order to mitigate the effects of any future crises, blended learning should be embraced as a mandatory component of F2F instruction in a post-COVID world.

- The capacity for learners to participate in online learning communities needs to be enhanced to ensure that a similar sense of connectedness can be retained if programmes transition to online-only modes of delivery.

I found all of these recommendations to be completely appropriate for application in the Palestinian context, but the third item is of special importance and goes beyond appropriate to crucial in regard to our situation in Palestine.

As I pointed out in Chapter 1, blended learning has been used to good effect in Palestine and across the MENA region by Al Quds Open University since 2008, when that institution transitioned from correspondence-based distance learning to e-learning (Mikki & Jondi, 2010). Birzeit University, the first HEI in the region to connect to the internet, has been delivering all courses face-to-face and online since 2012 (Shraim, 2012). T3, I4:

> *If I wanted to compare my university with some other university, for example Al-Quds Open University, they have no problem with a pandemic, they didn't get any effect because they have prepared well and they planned well, and most of their lectures are using blended learning. So, I think we have to do this at the university, and they have to learn, and do something seriously for this matter.*

In Chapter 1, I recommended both blended and fully online education models as potentially very useful in the Palestinian context. Now, after the COVID experience has barely ended, Palestine has a large-scale armed conflict in deadly progress, with thousands of civilians killed including HEI faculty and students. When the latest war began, all universities in the West Bank quickly shifted back to online ERT, then returned to F2F mode a few weeks later (Sawahel, 2023). (All universities in the Gaza strip have now been destroyed, with many faculty and students killed [Da Silva et al., 2024; Fayoumi, 2024].) As a teacher who endures five-hour waits at checkpoints under the guns of Israel Defence Forces snipers enroute to my institution, I have now upgraded my recommendation of blended and fully-online modes of teaching and learning from useful in Palestine to critical as a potential matter of life and death.

New models of blended learning expand the possibilities of this delivery mode. The HyFlex model (Beatty, 2019) not only integrates complementary synchronous and

asynchronous learning experiences as in traditional blended learning (Allen et al. 2019) but also offers students a range of choices in the way they participate in the course and engage with the material. As per Beatty (2019), ongoing development, reconfiguration, and rebranding of the HyFlex model has resulted in multiple interpretations of the original HyFlex: e.g. Multi-Options, Blendflex, Comodal, Blendsync, Flexible Hybrid. Most of these have one thing in common: greatly expanded freedom of choice in access and working modes for both students and teachers.

Now, we are seeing the rise of feature-packed, highly flexible social learning platforms that are built around the principles of social constructivist online learning and fully oriented towards use in delivering hybrid learning experiences. For example, Engageli, conceived in Silicon Valley during the COVID lockdowns, is designed to provide a seamless, collaborative virtual classroom experience with an emphasis on supporting soft humanware elements including social presence, community, and collaboration (Engageli, 2024). Engageli can be deployed in virtual, hybrid, and F2F learning and features advanced audio/video and interactive platform technology that supports instructors in the delivery of engaging, active, student-centred learning experiences while at the same time making classroom management less labour-intensive. The platform can support F2F and online learners in the same class sessions and uses cloud- and browser-based technology and access to simplify use and lower bandwidth and technology requirements for users.

Advances in technology, growth in access to high-bandwidth internet connections, and demand from student cohorts who have grown up on social media are some of the factors driving platform developers to maximise support for social presence. This is a component of soft humanware that manifests as the degree to which a person feels and is perceived as present in mediated communication (Short et al., 1976) and by extension has a sense of interpersonal connection and community with fellow group members during work in online spaces (Whiteside et al., 2017). Social learning platforms like Engageli are designed to forefront affordances that support the development and leveraging of social presence and other facets of soft humanware in online learning. I believe advanced social learning platforms of this type represent a technology paradigm that is paving the way forward for digitally mediated learning.

In an effort to find a path towards technological flexibility that will allow HEIs to cope with abrupt external shocks similar to that delivered by the pandemic, Turnbull et al. (2021, p. 6419) propose a model that encapsulates the learning process within a modality-neutral learning space called the *Technology Enhanced Learning Hub* (see Figure 5.1). In this model, Institution,

Technology, and Community are proposed by Turnbull et al. as influencers that facilitate learning progress and shape stakeholder interactions. In a description that I suggest captures a critical aspect of a new epistemology of education, Turnbull et al. (2021) state that 'The model does not assume a particular delivery or learning approach but instead seeks to leverage available technological, pedagogical, and institutional resources in a delivery-agnostic manner' (p. 6415). Modality-neutral, delivery agnostic—as I interpret the model and explanation by Turnbull et al., the point is to consider approaches to education that emulate the agile paradigm—they may include particular framing influencers or structural components as needed, but they do not necessarily rely on rigidity or any fixed technology or delivery model.

Figure 5.1: *Technology-Enhanced Learning Hub*
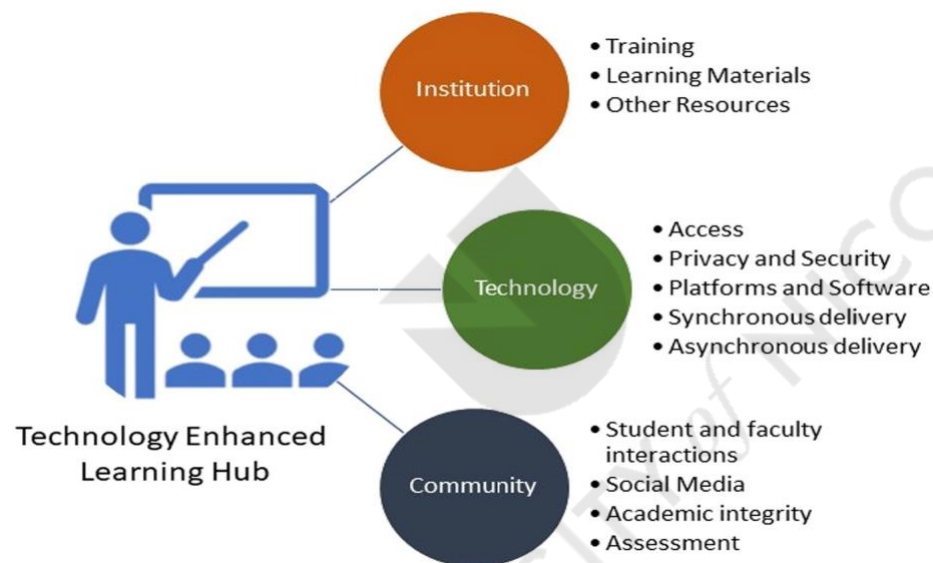
Note. From "Transitioning to E-Learning During the COVID-19 Pandemic: How Have Higher Education Institutions Responded to the Challenge?" by D. Turnbull, R. Chugh, and J. Luck, 2021, *Education and Information Technology*, (26), 6401–6419 (https://doi.org/10.1007/s10639-021-10633-w).

As Marc Prensky (2018) notes in an article about young students and educational technology, most dedicated educational technology is oriented towards supporting the old paradigm of education. Prensky points out that almost every technology needed for education is available in the form of general-purpose technology; it is already in use in much of our lives, and much of it is free.

> Our kids—and their educators—need to be finding, creating and inventing ways to use these new general-purpose communication tools, collaboration tools, programming languages, big-data and other analysis tools, simulation engines, robotics tools, AI, AR, VR and more. (Prensky, 2018, para. 2).

I envision learning systems that can be adapted or custom-built to fit and be effective in specific contextual and cultural ecosystems and will at all times retain an overall flexibility and capability to react readily and rapidly to technological advances as well as external pressures and changing user/stakeholder requirements/preferences.

The details of how such learning systems are to be designed, constructed, and operated will vary as appropriate to context, but the technology architectures they run on should emerge from what Tsai et al. (2013) refer to as a design epistemology tuned to the needs and challenges of education in the knowledge society, one 'that emphasises the dynamic, social, and creative aspects of knowing and knowledge construction' (p. 82). I support the Tsai et al. concept and expand it here to include valuing light weight in terms of bandwidth, technical requirements, and user skill sets; elegance and simplicity of operation and use; broad, practical usefulness; and maximum functionality in terms of leveraging the affordances of indigenous hard- and soft-humanware resources.

These social learning system architectures will be the accumulation frameworks that gather authentic, object-oriented, self-supporting, and self-perpetuating learning communities. These communities will offer soft humanware social structures that provide support for all needed intra- and interpersonal development and functions. Communities will also include integrated homegrown native hard humanware resources that develop and maintain the technical architecture on an ongoing basis while disseminating and perpetuating relevant knowledge as needed. Visualise a model based on the structure and functioning of an agrarian/pastoral village in Palestine (or anywhere else) two or three centuries ago. Almost everything needed is grown or produced locally, community members as a whole represent a near-complete inventory of the human resources and skillsets needed to provide all necessary products and services, and nearly all knowledge is generated, shared, and perpetuated by and among community members. Only select, critical, high-quality external resource inputs are required or desired, and these are generally accessed on an as-needed basis. Now overlay this self-sufficient village model with a mashup of the MOOC and personal learning environment/virtual learning environment paradigms.

There is no doubt that imagining, accepting, and creating these new education systems will present challenges to many educators and stakeholders. For example, when looking at Figure 5.1, seeing a graphical representation of a person at a screen or board addressing an audience, and reading the word 'Institution', did you unconsciously form an impression of a

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building, a room, chairs? Now consider discussions of digitalisation such as those offered by Lund and Aagaard (2020) or Rozendaal et al. (2019) that describe increasingly permeable boundaries between the human and the digital, and the growing tendency for digital artefacts to become embedded in human activity as collaborative partners or even, in the dystopian view, masters. We already know that neither education, teaching, nor learning necessarily involve buildings, rooms, or teachers at boards; humans may also be increasingly absent from the framework. There is no question that the future of education will bring radical change as digitalisation proceeds, AI becomes ubiquitous, and education's role and purpose in society is transformed.

Overcoming fear of change, economic and other access barriers, and simple cultural and epistemological inertia to accept and accomplish major evolutionary changes in the way human communities view and approach processes of education represents a formidable challenge even in the most technically advanced forward-looking countries and societies. In a culture-bound, poverty-stricken, war-torn nation like Palestine, all indications point to the fact that my visions for an effective, equitable, community-oriented digitally-mediated future of teaching and learning probably amount to little more than the enthusiastic imaginings of a teacher/researcher deeply invested in a major educational technology-centred research project and excited by recent opportunities to go further in exploring the potential of digitally-mediated education than has previously been possible.

I hesitate to even begin realistically addressing questions around the future of education in Palestine given the openly-stated plans the colonial occupiers have for my nation and its people, and their implications for the possibility of having the stability and space for positive growth and development in education or any other sector of Palestinian society. I will simply reduce all discussion of the matter to a single word that has recently been heard again in the halls of the Israeli government and reported in mainline Israeli journalism outlets: 'Lebensraum' (Sarid, 2011; Sokol, 2024). Then there are larger questions about a global future where fossil fuel resources are greatly diminished, planetary-scale climatic, pandemic, military, economic, and other types of civilisational crises become a constant, and many more people will be experiencing the power and network outages and far more serious disruptions to daily life that are common in Palestine right now.

An immediate challenge to consider in regard to adopting online higher education in particular is the threat posed by the well-documented and increasing commodification of tertiary

education under global-scale predatory neoliberal market models (Barnawi, 2017; Ibrahim & Barnawi, 2022). This is not part of the vision I have for the future of education in Palestine, and developing country education systems are especially vulnerable, dependent as they often are on outside consulting and aid to move development efforts forward. Even in developed countries the online education sector has been the site of a number of well-publicised scandals revolving around extortionate fees, false promises, and a generalised lack of appropriate oversight.

In the MENA region, The United Arab Emirates is frequently offered as an example where the neoliberal education model has run rampant, with hundreds of private international schools and for-profit higher education institutions operating under UAE government sanction (Ibrahim & Barnawi, 2022; Lee, S. S., 2021). However, in the United States and the United Kingdom as well, education is currently treated as a commodity, with higher education institutions in particular operating under a corporate business model, reducing teaching and learning to items of consumer exchange and adhering to strict accountability in the conduct of operations for profit (Badry, 2019; Mullen et al., 2013).

Under this paradigm, 'Educational opportunity—especially postsecondary educational opportunity dictated by test scores and grades—can become a dodge, a way of laundering the found money that comes with being born into the right bank account or the right race' (Carnevale, 2016, p. 22). Even more insidious that the profit-seeking is the implicit corporatist social engineering being woven into the fabric of online education as observed by Ovetz (2017) based on experiences working in the U. S. tertiary education system:

> The growth of online education reflects the needs of capital for flexible 'just in time' workers who are always available to work and self-disciplined to work remotely without direct oversight while monitored by computer technology. Online education disciplines the labour power of present and future waged workers: to work while being subjected to omnipresent remote monitoring, without ever knowing if they are being watched; to take direction without being given it; to work without apparent, visible authority; to identify rules by which to endlessly replicate patterns; and to always be prepared to work even when not being paid for it. (Ovetz, 2017, p. 48).

In terms of accomplishing education change via local efforts, there is one hopeful sign, paradoxically emergent from the recent pandemic disaster and the excursion into ERT as explored in this thesis. It has now been clearly established that rapid progress and immediate dramatic evolution in ways of thinking about and doing education are very possible. It is driven

simply by removing any other available option. If further acceleration of uptake is desired, dispense with ethical questions and distaste to add threat and risk as motivating elements. I call it the pandemic model of education reform, and can absolutely verify that such reform-driving conditions have already revisited Palestine and especially Gaza in the post-COVID period. Moreover, the news of current world events does not build confidence that wide-scale conditions of this type will not descend again and even become commonplace.

However, as long as teachers and students can carry smart phones and other mobile computing devices, and access minimal electric power and network services in reasonably sheltered and safe conditions, we can explore new modes of teaching and learning that with some applied development efforts may be more than adequately effective. In fact, with millions of displaced people and refugees on hand in the MENA countries and elsewhere right now, and a need to ensure that these unfortunates are not cut off from educational opportunities, there are plentiful immediate opportunities to launch trial initiatives of new paradigms.

We first simply need to realise and accept that the only real fixed requirements for education going forward into a digitalised but more chaotic future are abundant creativity, the transformational development of entirely new epistemologies of education, teaching, and learning, and comprehensive stakeholder buy-in to the entire paradigm (whether attained voluntarily or otherwise). These resources can power the development and adoption of epistemologies of teaching and learning that include valuing and supporting the full leveraging of increasingly ubiquitous connectivity, rapidly evolving technology, and the constantly expanding digital agility of each new generation of teachers and students.

5.3 A Grounded Theory of Teacher Preparation for the Digitalised Future

Like T2, cited at the beginning of Section 5.2 above, I wonder about many of our Palestinian students and their preparation to engage with the demands of the fast-changing world beyond the borders of their small country. I also wonder about our teachers. Note that T2 remarks *I feel sad for them, because **we** are not well prepared.* Does T2 refer to the collective Palestinian 'we' or to HEI teachers in particular? I now regret not catching this reference and probing it more deeply, but accept the latter interpretation for the purposes of this discussion.

This research project is now complete and positioned as a whole within the framework of my lived experienced as a Palestinian, as a higher education student, as a higher education teacher, and now as an online EFL/DCALL teacher. The discoveries made have left me, like

my teacher participants, under an overarching cloud of uncertainty. As can be seen in Section 5.2 above, I have ideas, or possibly just dreams, of what online education and education as a whole at my HEI and in my country could potentially look like going forward. In the discussion that follows, I offer a theory that underpins a vision of education that is adapted to, and can be effective in, the new world we are all rushing towards.

> Despite the fact that education, today, is full of people who want to innovate, and full of so-called 'innovations', there has been little useful innovation in education at a fundamental level. Few, if any, of the so-called innovations change what is offered as 'education' compared to what was offered in the past, at anything but a superficial level. In fact, most of our schools remain much the same as they have been for hundreds of years, with a few 'new' things—such as technology and so-called 21st century skills—added on, mostly at the margins. (Prensky, 2018, para. 2)

5.3.1 Background

Interview 4, Question 3: What is your vision for ICT use within the university going forward?

> T2, I4: *Yes, I think it's a pessimistic vision, rather than optimistic one, although our experience in the online learning was not a bad one. Because we started to be accustomed to such a mode or way of teaching. Pessimistic, why? Because I think the university, as a security or military university, in its philosophy of education, I think it combines both the theoretical and the practical parts of the students' knowledge. One big problem in online learning was how we should blend, or how we should combine, both the practical side and the theoretical side, the theoretical part with the practical part of the courses. I think this is big challenge for the university. That's why I'm not that optimistic as a faculty member concerning the future of online learning at our university.*

Similar views appear to be widespread among faculty at MENA-region HEIs; note this quote from a professor in the Faculty of Mass Communication at Cairo University speaking to an *Al-Fanar Media* reporter:

> I do not think that most of the educational institutions are currently ready for such a transformation. I think students are more prepared for that, being in greater contact with technology and because a number of them have previously enrolled in online courses.

(Farag, in Faek, 2020, para. 10)

T3 I4: *Through my experience, the university where I teach and work, they will immediately go back to face-to-face teaching and they won't accept this online teaching, I think.* I have noted previously that, as in other Arab countries, classroom instruction in Palestine tends to be predominately teacher-centred, generally involving lectures where students sit passively listening and taking notes (as documented by Hamamra et al., 2021; Harandi, 2015; others). College and university students are positioned as passive recipients engaged with 'an outdated pedagogy that is associated with power structures and patriarchal elites' (Ramahi, 2015, p. v). Based on their study of Palestinian university students (English literature majors) who were working online during the pandemic, Hamamra et al. (2021) observe that online education had a liberating effect because it 'forced many instructors to give up their domination over the process of education and to create a more collaborative atmosphere of education that is based on dialogue, research and flexibility of the curriculum content' (para. 1).

Teacher role shift in online education has been discussed in detail in the present study. As previously explained, teachers in this study tended to embrace this role change to varying degrees instead of viewing it as threatening to their professional identities as Hanson (2009) notes is the case with some teachers; and as we find clearly expressed in Yeung et al. (2023) where role shift is specifically described as a threat to authority in and outside the classroom. Even the teachers in the present study who had a willing attitude evidenced a generalized feeling of displacement, of teaching and learning removed from their proper setting. It was palpable in the participants in this study, documented by researchers like Foreman-Brown et al. (2023) and Bacova and Turner (2023), and I would infer, experienced by millions of other teachers around the world.

To some extent, this was due to the dramatic and sudden nature of the shift to online ERT. With no adequately prepared substitute for their F2F classrooms, and no time for gradual transition through stages of acceptance and adoption as proposed by theoretic models, even experienced online teachers were unsettled and uncertain. This is to be expected, but I propose that this disorientation or displacement also has roots in a deeper source: a mindset that is locked into old, traditional views of what education is, should, and must be. That is, something about dominion, power, hierarchy, and so forth; about inculcating desirable propensities and preventing students and the adult humans they become from 'engaging in social and political challenges' (Hamamra et al., 2021, p. 4).

Beyond the traditional concern and focus of education on the maintenance of extant power structures and relationships and the reluctance and discomforts associated with any attempt to dispense with or move away from that concern, the inside/outside classroom ICT use acceptance gap identified by Hinostroza (2018) can also be seen to exist in the minds of many educators and students alike. People of all ages are completely comfortable with keeping a smart phone near them and ready for use 24/7 yet continue to resist the uptake of technology in the context of formal teaching and learning. The traditional question concerned ways to use ICT to transform education; the new question facing educators is how to teach and learn in the transformed digital context implied by the new scenario of ICT ubiquity (Hinostroza, 2018).

As Lund and Aagaard (2020) explain, under the weight of increasing digitalisation in education and all aspects of human life, 'The relationship between humans and digital technologies is shifting. This has severe implications for how people construct knowledge and arrive at valid responses to complex challenges' (p. 57). Regarding education, Lund and Aagaard observe that teacher education programmes are emphasising the use and mastery of digital artefacts while underestimating epistemological implications and failing to consider what sort of attributes teachers might need to cope with fundamental transformations in epistemologies and epistemic practices as technologies become more embedded in our lives, practices, and even our bodies. As digitalisation progresses, digital artefacts will continue their movement beyond tool status to acquire more cognition, agency, and intent, increasingly appearing as collaborative and communicative partners (Lund & Aagaard, 2020; Rozendaal et al., 2019).

Lund and Aagaard (2020) argue that digitalisation requires teacher educators and pre-service teachers to develop 'Transformative digital agency that involves designing and enacting educational practices where the division of labour between humans and non-humans is not always clear but where the educational responsibility firmly rests with human agents' (2020, p. 68). Before dismissing such arguments as speculative science fiction, recall what Dron (2007) observed many years ago about teaching roles split across a variety of human and non-human entities. Through this lens, AI-powered teaching robots standing at the front of analogue or virtual classrooms, or more likely appearing as customisable holographic figures or synthesised faces and voices emanating from the Cloud, are merely the logical extension of technologies like lecture hall public address systems or overhead projectors.

5.3.2 Substantive and Formal Theories

In the present study, as per Glaser and Strauss' (1967) original model of discovering theory from data, I constructed a substantive theory for the substantive, empirical area of inquiry represented by the implementation of online ERT/ERL at the research site and my research participants' positioning as elements of and actors in this phenomenon: *The adoption of digitally-mediated learning modalities is a critical requirement for the construction of an effective education system in Palestine, and can only be accomplished by embracing new epistemologies of teaching and learning that value and support the full leveraging of increasingly ubiquitous connectivity, rapidly evolving technology, and the growing digital agility of each new generation of teachers and students.*

Then I moved to developing emergent theory for what Glaser and Strauss (1967) explain as a more generalised formal or conceptual area of sociological inquiry. In examples from Glaser and Straus, this is any overarching, abstract concept like authority and power, social mobility, learning, and etc. In my model, it is the concept 'teacher training/education.' The result was a data-grounded formal theory and model of teacher preparation that encompasses a view of education, teaching, and learning as adapted to the increasingly digitalised world predicted decades ago by Marc Prensky (2009, 2011) and described by Lund and Aagaard (2020) as now rapidly advancing.

This grounded theory emerged from data that demonstrates practical advantages and disadvantages associated with the adoption of e-learning in the Palestinian context, and also highlights related nuancing factors sociocultural and otherwise. The data also evidences an overarching atmosphere marked by uncertainty about what online e-learning at WBU and in the University ELT programme can do, what it should look like, how it can be implemented, what role it can or will play in the future, and how the roles of teachers and students can and will be transformed and positioned in a future that includes online distance learning and DCALL at WBU, and by extension, across HEIs in Palestine.

I propose a grounded theory of practical teacher preparation that attempts to dispel some uncertainty and also embodies and operationalises epistemologies of education and learning appropriate to a future of education that we can now easily apprehend. This theory considers my vision of an ideal model for digitally mediated education as presented above in Section 5.2. The theory coalesces around a question similar to that roughed out by Hinostroza (2018) and

further developed and updated by Lund and Aagaard (2020). My theory is also nuanced by reflections on suggestions put forward along strands of conception like this from Marc Prensky:

> Humans will succeed in the future not by following any traditional paths (if we can still find them) but by creating new trajectories, developing and using the one-of-a-kind combination of dreams, concerns, strengths and passions that makes each of us unique. And there is now a new component to our human uniqueness—the unique way each of us integrates technology into our being as we become Human-Machine Hybrids. (Prensky, 2020, para. 4)

How do we face the epistemological challenges and go on to successfully teach and learn in a context where our practices of living, learning, and knowing are completely and utterly transformed by digitalisation? On a practical basis, I propose that we start by accepting the following principle or sub-theory: in an era defined by the increasing ubiquity of networked digital technologies and ever-more-pervasive digital mediation of our lived experiences and life activities, we must develop and implement a form of education that: (1) emphasises and embraces what Lund and Aagaard (2020) refer to as the transformative potential of digital artefacts; (2) accepts and leverages the transformational epistemic implications of the forms of cognition—extended, embedded, and embodied associated with digital artefacts and connecting digitalisation to epistemology (Aagaard & Lund, 2020; Lund & Aaagard, 2020); (3) harnesses the full and evolving potential of ICT; and (4) seamlessly bridges the gap between the teaching and learning that occurs both inside and outside analogue and virtual classroom spaces.

We can then move on to adopting a grounded theory of teacher preparation that accounts for the advance of digitalisation and the need for adopting transformative epistemologies of education, teaching, and learning. This theory must outline and support a redesign of teaching and learning in order to cope with a future that will include accelerated breakdown and abandonment of traditional institutions and paradigms in all spheres of human activity including education. We need to escape these falling structures by returning, both in the physical and virtual senses, to sustainable models like the village example described in Section 5.2 above. I propose the needed theory here: **Teacher education must be oriented to produce practitioners of digitalised education who are fully confident and competent in the face of sweeping digitalisation and are prepared to own the role of *transformative digital agent* in a context where the boundary between the human and the digital is increasingly porous.**

5.3.3 The PEACE Framework

As previously demonstrated in Section 2.1.1., no new models of technology acceptance and adoption have emerged in recent years. The latest examples to be found in the literature are UTAUT from Venkatesh et al. (2003), TPACK (Koehler & Mishra, 2005), and SAMR (Puentedura, 2006). An interesting item of note regarding TAM, TPACK, SAMR, the Kiely Model, and other major models of technology adoption—they all pre-date the June 29, 2007 release of the iPhone. In my view, although UTAUT, its progenitor TAM, and TPACK all have long histories, solid foundations in research, and broad acceptance, they are outdated. They do not reflect or account for the modern-day ubiquity of technology and the modes of adoption and use that people, including teachers and students, now engage in.

These models face an inescapable limitation: in technology years, they are ancient. They were designed around a much earlier reality, and are not easily adaptable to the current one. A primary weakness of the older models is their hampered ability to deal with a phenomenon that underpins a core design principle of the *PEACE Framework* (see Figure 5.2), an original technology adoption model that embodies and operationalises the grounded theory derived from this study.

Figure 5.2: *The PEACE Framework*

Unlike the older models that are limited by their design around the tentative roles played by technology in people's lives in the first decade of the millennium and prior, my vision of

technology adoption going forward is founded on the recognition that we have moved past the stage where technology acceptance can be viewed as a predominant factor in technology adoption. Bax (2003) predicted that the ubiquity of digital mediation in everyday life including education would cause the disappearance of CALL as a field. In the same way, the study of attitude and acceptance around technology use is going to diminish. Judging by my failure to uncover information on any new adoption models of a similar usage scale to TAM, UTAUT, or TPACK, this has already happened.

Now ongoing and into the future, barring post-apocalyptic scenarios and the most extreme conditions of underdevelopment or poverty, nearly anyone who enters a modern teacher training programme will do so as a near-constant user or even over-user of powerful digital technology carried in their pocket day and night. PEACE is a product of the smart phone era and the incoming AI era; it is an entirely new model designed for its times. PEACE has a close commonality with existing models of emergency teaching that have been developed in the face of ERT in Palestine and elsewhere: it is a model founded on the assumption that teachers are going to change their epistemologies around teaching, learning, and technology use. They are going to adopt and implement digital mediation measures whether they accept or like them or not. Even if they do not, instead opting to leave the profession, all members of generations who were not born and raised accepting the adoption of digital technology are quickly passing from the scene.

Moreover, to draw on Lund and Aagaard (2020), the momentum and power of digitalisation are such that that the division of labour between human agents and digital technologies is being erased. Technology is moving from its status as objects that humans manipulate towards being artefacts with roles as cognitive and collaborative partners in human work. AI-powered digitalisation in particular is expanding and refining the capacity of technology to control and manipulate its human users rather than the situation being reversed as has traditionally been the reality.

The PEACE model essentially dispenses with considerations of acceptance to put focus on the holistic development of practical skills in the form of digital fluency levels appropriate for operating in AI-infused Web 3.0 environments. Web 3.0 or Web3 is a third iteration of the internet first proposed in 2014 by Ethereum blockchain cofounder Gavin Wood (Essex at al., 2023). Web3 is a space where users will work with networked AI to accomplish many tasks including the precision design of any information structure and representation they need or

desire, and people including teachers and students will interact as virtual avatars in the 3D world of the metaverse (Essex at al., 2023). The borders between the digital and virtual, technology and human, will continue to grow increasingly blurry and porous, and the Web3 world will both transform, and demand transformation of all who operate there.

The PEACE framework is similar to the TPACK model in that PEACE comprises distinct elements or sectors of knowledge that together represent a package of foundational skills, attitudes, predilections, and philosophies to be possessed by an effective practitioner of digitalised education. Resonant with SAMR, the PEACE model positions transformation of education as an objective. PEACE-full practitioners work towards becoming and operating as transformative digital agents. As extrapolated from Lund and Aagaard (2020), this is an educator who has developed transformative digital agency—'that is, agency to identify educationally challenging situations and turn to relevant digital resources (and other resources) to transform the problem situation into a constructive and teachable event' (Lund & Aagaard, 2020, p. 68).

At the time when models like TAM, TPACK, TIM, UTAUT, SAMR and others were coalescing, transformation of education was a vision or ideal for the future. In contrast, the PEACE paradigm arises in an era and reality noted for being the product of large-scale social transformation via digital mediation, and at a time in education when separating teachers and especially students from their digital technology has become a much-discussed challenge facing the field at large. In other words, the task of transforming education is much further along now, opening a space for acceptance of an ambitious new model of technology integration.

In this context, PEACE replaces all earlier models as a theoretical paradigm not for adoption of technology as much as for the adoption of and practical adaptation to a new, digital technology-driven epistemology of education. It is a unified model and practical guide for future teacher development efforts in ELT and across other fields in an education context characterised by increasingly pervasive digitalisation. The PEACE framework will serve as a foundation for ongoing scholarship aimed at creating a system that produces educators who fully understand the implications of digitalisation and are prepared to work as transformative digital agents in the radically different education systems that are now appearing on the horizon.

I will further develop, detail, and test the PEACE framework in future scholarship; for now, I offer a concise summary below:

P–*Pedagogy 3.0*

Pedagogy 3.0 is an overarching reference to digitally mediated pedagogies. This does not include older paradigms of digitalisation in teacher education where, as discussed by Lund and Aagaard (2020), a division of labour between human agents and digital technologies has been upheld. Lund and Aagaard explain that, in this relationship, the human agent retains the roles of executor of actions, decision-maker, and prime doer in educational efforts. 'Digital technologies have been considered mere tools, mediating educational efforts and activities without interfering with the human aim, purpose, and outcome of educational activity' (Lund & Aagaard, 2020, p. 57).

The concept of Pedagogy 3.0 and a practitioner of the same acknowledges the challenging and transformative effects that digitalisation has on epistemic practices, understands those effects, accepts and leverages digital artefacts in their new roles as collaborative partners in human work, and embraces the affordances that new, transformed pedagogies offer. These pedagogies do not necessarily involve the old paradigm in which the human learns strategies to employ and manipulate digital artefacts in a teaching process that essentially involves a surface-level conversion or adaptation of traditional F2F or analogue pedagogies and artefacts for transmission over digital networks and use in virtual class spaces.

This crude F2F education conversion process is the phenomenon my study documented during the implementation of ERT at WBU. As far as I could observe, the division of human/digital labour proposed by Lund and Aagaard (2020) was firmly upheld throughout. Indeed, I saw no indication of any other conception being entertained. Experience over the time that has since passed, with university administrators and faculty clinging to F2F analogue education models even under deadly threat while commuting to campus during wartime conditions, demonstrates that there has been no transformative effect at all from ERT. Pedagogy 3.0 discards all of the old shackles that anchor education processes in brick, mortar, paper, pencil, and human contact. It emerges entirely from digital artefacts and from an embracing of their roles as cognitive and collaborative partners in human work. Let me ground and clarify this characterisation by offering an understandable practical Pedagogy 3.0 scenario for reflection:

It is the beginning of Autumn Semester and time to plan and prepare my course for delivery. I log into my personal teaching environment in the Metaverse, select an ELT-specific generative AI machine from among the tools on the dashboard, and ask it for a complete pedagogy (or andragogy) and curriculum for beginning-level English language teaching. I then

ask my AI to code and organise the tools and resources needed to implement that pedagogy within the 12-week span of the semester. A few minutes later, I check the course and make a few adjustments and substitutions according to personal preference and based on what has worked in the past and what I know about my students. I also ask the AI to add two brand new tools and associated learning activities that I noted in a recent journal article during my summer reading. I then set various date and time parameters, check that enrolment data has been correctly onboarded, and instruct my Cloud-based AI avatar to execute the pedagogy for the students beginning with their first log-in to my virtual learning space after tomorrow's official semester launch.

E–*Evolving Epistemology*

In this concept, like Tsai et al. (2013) we move away from what Wong and Chai (2010) argue are the limiting effects of prevailing conceptions of knowledge based on traditional notions of epistemology that are influenced by a bias towards the positivist principles of the scientific method. Doing so 'opens the way for a more dynamic, comprehensive conception of knowledge construction that cuts across not only various disciplines but also across domains of skills, practices, and even dispositions' (Tsai et al., 2013).

I harbour no illusions that engaging such evolution is necessarily simple or easy. In the present study, I saw evidence of the firm grip that established epistemologies can have on educators. Whether the teachers in the present study unconsciously adhered to existing paradigms, purposefully refused to let go, had no vision of alternatives, were evolving but very slowly, or were affected by various combinations of all of these along with other factors is a question that was not explored in this study. There is abundant support in the literature for this last 'various combinations' possibility (e.g. Jacobson et al., 2010; Somekh, 2008). Whatever the cause, as illustrated in Chapter 4, I found teachers expressing excessive concern over factors that can be identified as structural components of long-standing, or traditional epistemologies of education, learning, and knowledge.

An obvious example is the preoccupation, exhibited primarily by the new online teachers, with the necessity of forms of teacher control over students that would match conditions common in F2F classrooms. Another is teachers' concern with the control and elimination of behaviours that fall under standard definitions of academic dishonesty, or cheating. One interesting epistemological artefact that I noticed almost immediately in the data was the frequent reference to lecturing as a primary activity in the online classroom. T1, I1:

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You have to digitalise the materials and download some books, I think it is very important to give better lecture. T2, I4: *I post students' questions and I ask a question based on their lectures and readings. And I ask them to evaluate, for example, part of the lecture.* T5, I3: *And on the other hand, the others prefer the online one [class] because nothing can obligate them to attend the lecture.*

Although they adjusted, adapted, and accomplished what needed to be done given the conditions at hand, I think it is fair to infer these major shifts in epistemological stance had yet to take place among these teachers.

I propose that the first step to developing new epistemologies of education is gaining awareness of and identifying existing philosophical stances. Then, moving towards a Zen-like conception of an epistemology of no epistemology serves as a mental exercise to highlight the importance of flexibility and the rejection of belief (in its traditional conception as a form of rigid categorisation and limitation that implies an end to further possibilities of growth and development). Evolving Epistemology is intended as a conceptual lens that aids focus on an ethos of openness to endless possibility in terms of the definition, construction, and validation of knowledge, and by extension, education, teaching, and learning.

A–*Agility*

The Agility concept is simple and has roots in a conceptual framework or methodological approach that characterises and guides particular software development practices. The idea has been expanded to include technological flexibility and adaptability as a philosophy of deploying technical infrastructure in business and other fields. I employ the term in a manner similar to this latter connotation in reference to the ability of teachers and students to apply a wide range of strategies around adopting and leveraging varied and/or new digital tools in a flexible and timely manner (as per Bohstedt & Richard, 2020; Seale et al., 2010).

As a PEACE framework component, Agility retains all these connotations and others as relevant to principles, practices, and objectives indigenous to the education sector. For example, the application of the original Agility model in education might apply to the guidance of software development projects, the architecting of technology arrays, and other pursuits where the older concept of agile methodologies and techniques might be useful. Digital agility can expand beyond reference to tool use; it can include the ability to accurately navigate the constantly shifting digital information landscape, critically evaluate what is found there, and efficiently extract useful meaning from the overwhelming abundance (Bohstedt & Richard,

2020). I also use Agility to imply a characteristically flexible mindset or philosophical approach to education and educational practices; in that sense, the Agility principle underlies the concept of Evolving Epistemology.

I credit the participants in this study with possession of at least developmental levels of digital agility. The simple fact of successful adaptation to ERT conditions is primary evidence of this, and although available tool sets were limited in number and variety, the teachers did learn to use what they had with some degree of efficiency while some of them explored the use of an additional new tool (GBRs). They also demonstrated to one degree or another the mindset of epistemological agility in adapting to the teacher/student role changes associated with the move online.

C–*Cultural Consciousness*

The teacher data collected in this study contained numerous participant references to conditions, constraints, and considerations specific to the cultural context, several of which were featured in the Chapter 5 discussions. From remarking on study conditions related to typical family living situations in the country, or describing customs around privacy and web cam use, to noting the effects of gender on education participation and trajectories among Palestinian students, the teachers frequently gave both direct and indirect indications of awareness of effects arising at the intersection of education and culture. Working as they were in their native cultural context, these teachers possessed innate Cultural Consciousness that required little if any explicit development or attention beyond acknowledging and handling any effects highlighted or produced by the switch to online education.

A simple principle on the surface, but infinitely complex in practice, Cultural Consciousness is the idea I foreshadowed in the brief Section 5.3 discussion of varying conceptions around online privacy. This leg of the framework can be considered as being related to the well-known principle of *cultural competence*, which in the form of cross-cultural competence is familiar to ESL/EFL teachers and other cross-cultural educators. In the PEACE framework, I use Cultural Consciousness in a practical sense to imply a meta-level awareness and skill while delineating distinction from the term cultural competence that for many people carries necessary cross-cultural implications. My model positions cross-cultural competence as a component element of the overarching Cultural Consciousness framework. Similarly positioned is intracultural competence, the ability to acknowledge, support, and leverage specific aspects and particularities of cultural context when working within one's native culture.

Cultural Consciousness can be seen as a feature of both hard and soft humanware. Recall that Warschauer (2002) referred to cultural competence as a characteristic of humanware as represented by 'a body of teachers with the knowledge, skills, and attitude for innovatively designing, adapting, and applying technology in the classroom, *appropriate to local context*' (p. 472, Emphasis mine). Cultural competence as a soft humanware component is an element of social presence in online learning environments (Soper & Ukot, 2016), and issues around cultural competence are well-represented in the online education literature. For example, Lamy (2013) notes that engaging possibilities for cross-cultural interaction and communication, leading to the development of both linguistic and cultural competence, is an important feature of DCALL that sets it apart from online distance education.

I contend that Cultural Consciousness is a critical element of a new education paradigm, and not only because of the increasing diversity encountered in both F2F and online classrooms or the sociocultural imperatives posed by globalisation and networked humanities. Teaching and learning in virtual spaces, even when teachers and students are in their native cultural context and using the best technology and cutting-edge social learning platforms, involves navigating a gap that is not present when working together in person. T5, I4: *Every individual student has their own circumstances…I can't tell their circumstances. They are all from many villages and towns in Palestine.* Developing and maintaining heightened awareness of and sensitivity to cultural contexts, factors, variations, and effects can only be beneficial as a teacher works to minimise the effects of physical separation in the online classroom and maximise learning outcomes for each student. By extension to the macro level, culturally conscious teachers lead to the evolution of Cultural Consciousness as an inherent aspect of epistemologies of education and the education system as a whole.

E–*Evaluation*

The PEACE framework re-frames student assessment as Evaluation in order to symbolise and support the move away from traditional positivist epistemologies of teaching and learning. These tend to feature very rigid beliefs in regard to positioning students and their knowledge as objects to be measured. The concept of measurement implies rigidity and fixed elements against which characteristics of items may be compared. Evaluation carries a softer connotation, and holds the notion of value at its core. It removes the emphasis on mechanistic applications of rigid standards and brings a human element to the fore.

This study exposed the sort of confusion and failure that can occur when older conceptions of testing and assessment are force-fitted into online distance curriculums. Assessment administrators at WBU first imposed an onerous set of restrictions on teachers, then completely abandoned efforts to evolve an assessment paradigm that would function properly under ERT conditions. The ensuing return to F2F assessment was difficult and arguably risky under pandemic conditions, caused additional stress to students and teachers, and appeared to add little in the way of validity and reliability to the assessments carried out, particularly where ELT was concerned. All this was despite the fact that, as discussed in Chapter 4, the teachers in this study showed significant depth of knowledge regarding effective assessment strategies for online learners. T2 essentially quoted the literature on the matter, and even the beginner online teachers showed a grasp of what needed to be done.

The evolving theories and practices of assessment in online learning are moving in what I view as a positive direction towards fit with a social constructivist epistemology of teaching and learning, a model supported in the literature as driving the use of authentic, meaningful assessments in online learning (Conrad & Openo, 2018). This approach to student assessment is built around activities designed to foster student learning (Carless, 2007; Doğan et al., 2020) while at the same time providing educators with feedback on learning outcomes and the effectiveness of the pedagogical strategies in use. The term Evaluation as I use it here is intended to invoke the student-centred, flexible, holistic, authentic, and responsive nature embodied in the best practices of student assessment in online learning.

5.4 Conclusion

This chapter has provided a capstone for the presentation and discussion of the results of this study. I offered detailed answers for each of the research questions that guided the study and then drew on the findings of this research and my lived experience as an indigenous Palestinian researcher and an HEI teacher to outline a vision of the way forward for education in the country. I also considered some of the potential barriers to implementing these practical implications. This qualitative study was designed as grounded theory research; accordingly, I proposed a theory grounded in the research findings (see Figure 5.3). I concluded by presenting an original theoretic framework for teacher technology adoption based on my theory and designed as an updated model suitable to technology use as it now appears at the dawn of the AI age.

The opinion/thesis I held at the outset of this research project has been supported, remains the same, and has been incorporated as a component of substantive theory: Online/digitally-mediated modes of teaching and learning must be broadly adopted across Palestine's education system. In practical detail, this must involve a new education paradigm that takes the form of a very fluid hybrid model of teaching and learning, possibly an updated and locally adapted version of Beatty's (2019) HyFlex model that incorporates concepts demonstrated by Engageli and some of the other new social-learning platforms that have gained popularity in the post-pandemic period. A HyFlex-type approach is a viable solution for the challenges inherent to operating an education system in Palestine, where it is difficult to maintain consistent fixed schedules of F2F meetings at all institutions, and for all teachers and students at a given institution. Support must be offered for fully online class meetings as well as hybrid meetings where some students are present F2F while others attend from a distance. Teachers also need the flexibility to lead classes in person or remotely as needed, and at short notice, even if a given class is scheduled for F2F meeting. In other words, flexibility is a core standard, and a reliable, diverse technology suite is a basic necessity.

Figure 5.3: *A Grounded Theory of Teacher Preparation for Digitalised Education*
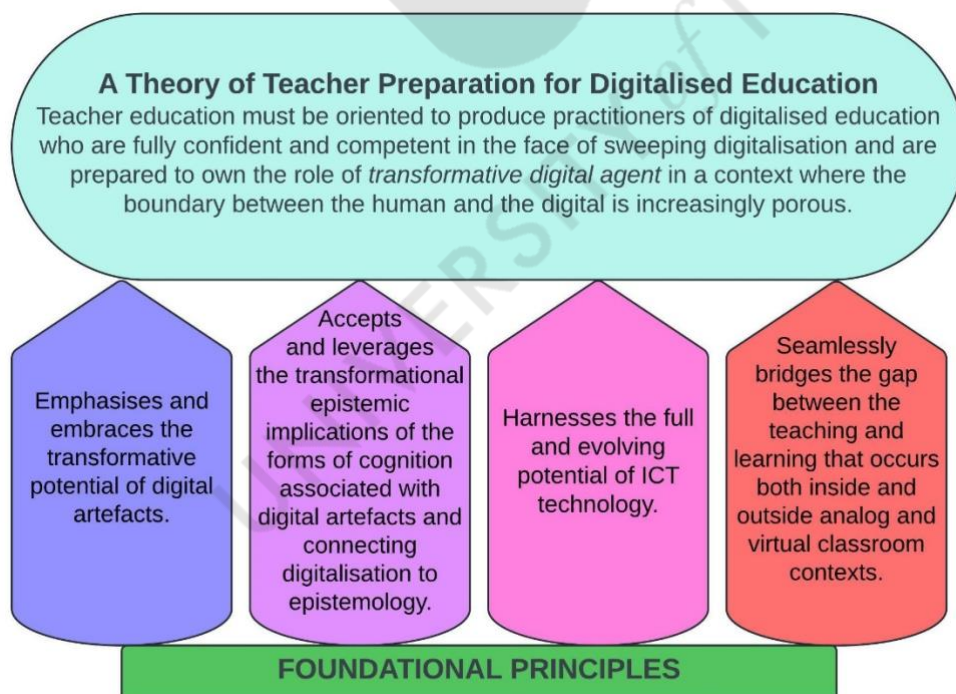
The following Chapter 6 concludes this study. In it, I summarise the findings of this study in relation to the research questions, comment on the implications of the study, offer

suggestions for future research, and describe the delimitations and limitations of the study. In a brief concluding discussion, I examine the implications of the PEACE Framework to higher education in Palestine in light of the ongoing circumstances.

CHAPTER 6 CONCLUSION

6.0 Introduction

This study tells the story of a first-contact experience with online e-learning by teachers in the ELT department of one Palestinian HEI—West Bank University. As reported in this thesis, there are other HEIs in Palestine that have decades of experience doing innovative work in the field of digitally-mediated education. Following the successes of trail-blazing institutions like An-Najah National University, Birzeit, and QOU, there is a growing and now pandemic-accelerated current of support for the widespread adoption of hybrid models of teaching and learning, with fully-online options offered and available for those who need or like the alternative. Western-trained Palestinian educators like Bilal Hamamra, Nabil Alawai, and Abdel Karim Daragmeh (Hamamra et al., 2021; I give them a shout-out for one the best papers discovered in a massive literature review.) are importing new epistemologies of teaching and learning that value movement away from traditional positivist education paradigms and towards student-centred, social constructivist models. There are new generations of teachers and learners in Palestine who are ready to embrace the possibilities of innovation given the chance. I do not think the teachers at WBU should be left behind.

6.1 Summary of Findings

This study has effectively generated answers to all the research questions that motivated and guided the research:

(RQ1) *How do the WBU English language teachers view the adoption and use of e-learning as a pedagogical tool under the conditions of ERT?*

Turning from F2F classrooms with very little technology in use to complete reliance on e-learning almost overnight represented an abrupt, significant change for all the teacher participants in this study. These participants were caught up in an implementation of forced but relatively unmanaged change to complete reliance on e-learning. This forced change was carried out under the conditions of a global pandemic emergency, in a setting where the general situation is not ideal for online learning at the best of times. It is no surprise that the teachers in this study viewed the adoption and use of e-learning as a pedagogical tool under the conditions of ERT with uncertainty regarding the effectiveness of the e-learning teaching and assessment regimes as well as about the levels of genuine buy-in and participation on the part of many of the students.

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(RQ2) *How did the rapid transition from traditional face-to-face teaching to the use of e-learning methodologies impact the professional practices of the WBU English language teachers?*

The most frequently described effects on the WBU English language teachers' professional practices were related to shifts in teacher and student roles due to the reduction in teacher-centeredness and increase in equitable student participation that are well-documented aspects of online teaching and learning. The teachers were forced to go beyond reconfiguring their practices to reconsidering and restructuring their roles within the teaching space and teacher–student relationship.

(RQ3) How did the experience of ERT affect the WBU English language teachers' beliefs about the use of e-learning in the Palestinian educational context?

In the end, the participants all indicated that e-learning could be useful in the Palestinian educational context and would be an important feature of the country's education system going forward. However, they were also cognisant of the practical limitations placed on the potential of e-learning in Palestine by a range of obstacles including inadequate community and institutional infrastructure, poorly prepared students and teachers, stakeholder resistance, and sociocultural factors.

(RQ4) How does the landscape of challenges and possibilities in the adoption and use of digitally mediated teaching methodologies as pedagogical and professional-development tools for the WBU English language teaching programme appear as viewed through the lens of pandemic ERT?

As noted by several indigenous scholars and researchers in Palestine, the pandemic ERT model served at the same time as a lens that magnified existing challenges and as a key that opened the door to future possibilities regarding the adoption and use of digitally mediated teaching methodologies as pedagogical and professional-development tools in Palestine's education system. This was also true for the WBU ELT programme specifically.

(RQ5) How can theories regarding effective e-learning pedagogy contribute to the development of a model for transitioning from the ERT model into ongoing e-learning adoption and use in the WBU English language teaching programme?

Concerning the development of a model for transitioning from the ERT regime into ongoing e-learning adoption and use in the WBU ELT programme, ERT at the university appeared to be implemented with little or no consideration of any relevant theory, or even reference to research-

based literature regarding digitally mediated education, e-learning pedagogy, CALL, DCALL, or any other related matter. The University's ERT model is therefore wide open for improvement and would benefit from the application of almost any and all current theories regarding the design and construction of hard- and software e-learning infrastructure and the development of programme, teacher training systems, and online-specific curricula, materials, pedagogy, and assessment strategies.

6.2 Implications of the Study

As described in Section 5.2 above, the findings of this study and the realities we face in Palestine and globally suggest that full-scale implementation of digitally-mediated distance education delivery and an associated reform of our views of education and the workings of education systems in general, although definitely needed, present challenges or even represent impossibilities in the local context of Palestine and probably elsewhere as well. However, I want to end this thesis on a positive forward-looking note by saying that, given appropriate support, planning, and development, at least basic implementation of blended and fully-online programmes is feasible at WBU and in the WBU Department of Languages.

A central rationale and thesis for this study is that online education should be viewed as a useful if not essential component of higher education and most other education systems in Palestine. This has long been suggested by indigenous researchers as a solution to the frequent disruptions of education that stem from ongoing conflict and associated security concerns in the country (Shraim, 2012; Shraim & Khlaif, 2010). This study supports the necessity of undertaking evaluation of the possibility of expanding online education in Palestine, and improving the processes associated with approval, funding, design, and implementation of innovative education programmes at higher education institutions and other schools located in the country. As noted in this thesis, there have been many past efforts, mostly supported by foreign aid, and they have trickled away to nothing as pandemic ERT made clear. Now it is time to stand on our own and do the job from the grass roots, with whatever technology and money we have no matter how scarce. The fact is that every person who has a smart phone in their pocket could be studying courses from Stanford or Oxford for free. We need to be leveraging that fact, and this study shows that it can be done if the need is perceived as dire enough.

This study tells a detailed story of the complexities and challenges that arise, as well as the benefits that are realised, when undertaking a wide-scale movement to adopt online e-

learning on an institution-wide basis. It provides rare longitudinal insights into the adoption of online e-learning methodology for teaching EFL in a higher education setting in a context characterised by under-development, inequity in access, and frequent disruption of traditional education delivery modalities. Although situated in the Palestinian context, this study served to highlight prerequisites, obstacles, benefits, and demands associated with delivering both online distance education and DCALL in any context where technology-enhanced education remains in a liminal state or fully unexplored because of lack of development or other disadvantages. Therefore, the findings have specific implications for the design and delivery of online learning programmes in developing countries, and may also be useful in other contexts.

The study has accomplished its holistic objective of gathering and producing information that can be of use to DCALL teachers, teacher educators, and programme administrators as well as any stakeholders with an interest in the process of adopting online distance education and other e-learning methodologies at schools in developing countries. The insights gained here during ERT can be extended to inform future research on e-learning-based higher education pedagogies in any situation where the adoption of digitally-mediated education is in the early stages, and specifically in developing countries. Therefore, this thesis represents a significant contribution to the existing literature on e-learning, ELT, CALL, DCALL and education in settings marked by under-development.

6.3 Suggestions for Future Research

For future research directions, I would suggest research into explanations for the failure that Hinostroza (2018) observes as connected digital technology arrives in the hands and homes of people in even the poorest rural settings, yet does not gain significant traction in its obvious role as a seemingly excellent potential support to education in those same settings. Another phenomenon that needs to be investigated is the reason why, even in the wealthy West where online learning is solidly embedded in the HEI curriculum and even widespread in K–12, there is a glaring lack of empirical work that pins down in detail the real learning outcome benefits or lack of same associated with the digitalisation of learning.

Lund and Aagard (2020) see increasing digitalisation as inevitable in any case; Fairlie and Loyalka (2020) urge caution after their large-scale study in China and Russia indicated that going beyond a certain weekly dosage of EdTech actually damages young students' motivation and interest in learning. Very importantly, we now know about the real damage that social media

sites and the entire socio-emotional culture around them causes to adolescents, girls in particular. Is there an intersection that we should be aware of with the new social learning paradigm and the specialised social-network type platforms being developed to support it? How will the learning experience on such platforms play out in regions where one student in class will have a diamond-studded iPhone visible on screen while another is logging in on a $12.00 Nokia while sitting on a stool behind the counter of her mother's sidewalk noodle stall? The reality of online e-learning in developing countries is that it is a complex but nearly completely unexplored terrain in an education research sense, so there is plenty of work to do.

6.4 Delimitations and Limitations of the Study

This was a rather typical qualitative GTM study in that it told the story of a few people experiencing a particular phenomenon. The findings or conclusions of the study are therefore delimited to those individuals, in that context at that time. The study is limited by the same constraints of particularity of context and phenomenon along with small sample size. There is no empirical generalisability that can be associated with the findings of this study, although there may be many commonalities between conditions and events at this research site and other education settings in the Arab world both during and beyond ERT conditions. Care should be taken to avoid inferring unfounded generalisations about Arab schools, education, and culture, or even Palestinian HEIs near the research site of this study. This study and its findings should be approached with a careful, critical eye, and if that type of stance is taken, this study offers a large store of useful practical information that might be helpful. Lastly, this study is not replicable, and I think most educators and probably everyone else on the planet would stand with me in hoping it is never replicated under conditions like those it was carried out in.

6.5 Final Thoughts

An effective online education system would be invaluable in the context of Palestine, where on my daily trips to work, I spend innumerable hours standing in the sight pictures of bored Israel Defence Forces snipers, waiting to pass checkpoints barriers erected by the security state charged with protecting the rightfully nervous population of the world's last true colonialist occupiers. It is this sort of inconvenience, minor as it is in comparison with the current situation in Gaza—where every university has been destroyed and unknown numbers of HEI faculty and students killed, injured, and displaced—that to me highlights the primary implication and

underlying principle of the PEACE Framework: there is no valid reason left for consideration of matters related to technology acceptance by teachers. It is time to accept or go home.

My claim here will draw argument; I classify this with the argument that arose around the 8th century BCE transition from oral to written literacy in ancient Greece. Not too many years from now, if the power is still on, the idea that education, and higher education in particular, will be conducted in the absence of digital mediation will be seen as ridiculous. This is already a fact throughout the Western world, and increasingly so even in Palestine and other developing countries. At most universities in the developed world, it is difficult to even register as a student and enrol in courses without using networked computer technology.

I read that, in China, it has already been nearly a decade that state-level initiatives have been underway and aimed at having primary school students and even younger children learn to write computer code and use Artificial Intelligence tools (Zhu, 2019). Meanwhile, as Hamamra et al. (2021) document, in leading Palestinian HEIs, a chaotic, disruptive adoption of makeshift digitally-mediated education represented an invigorating infusion of liberation in a system where models of teaching and learning are still stuck literal centuries in the past. It seems insane to propose that the ongoing circumstances of emergency, morphed nearly seamlessly from pandemic to war, could actually be a positive force for change.

We are fortunate to have exemplary models in institutions like QOU, Birzeit University, and An-Najah National University. Yet at other institutions, it seems as if administrators and faculty entrenched in the past and mired in their own lack of technical fluency require some powerful force to push them into a transition to the mindset of Pedagogy 3.0, drive epistemological evolution, and demand agility. After all, the alternative to riding the wave of digitalisation is being left on shore or drowning, evolution is the alternative to extinction, agility is key to avoiding stumbles and falls, and cultural consciousness implies being aware of and competently manoeuvring and leveraging changes in the broader socio-cultural environment as well as in our specialised culture of higher education.

The PEACE Framework invites educators to move forward with new models of teacher preparation, practice, and professional development, but not necessarily as a struggle against or in spite of ongoing circumstances. These circumstances are admittedly not beneficial and, according to the World Bank (2023), include major drop-offs in the foreign aid that has underpinned much of the progress made in Palestinian education. But instead of approaching change from a stance of negativity, fear, and uncertainty as was the case during pandemic ERT,

the path forward to new models of higher education delivery in Palestine should be taken with enthusiasm and good cheer.

It is a route that leads towards modernisation, solutions to many everyday challenges, and from a longer view, potential liberation from forces of colonialist control designed to fragment and disempower Palestinians politically while holding Palestine in a degraded and developing economic status and even going beyond that to drive forces of reversal (Dana, 2021; Hamamra et al., 2021). We are more prepared than ever to reap the benefits of digitalisation, having gained so much more familiarity with and fluency in digital technologies than we could have even hoped for just a few years ago. As Marc Prensky (2018) observes, we now have many useful tools already at hand and in daily use in our lives, so let's get to work on constructing new models of education for Palestine.

REFERENCES

Aagaard, T., & Lund, A. (2020). *Digital agency in higher education: Transforming teaching and learning*. Routledge.

Abdulla Al Ghurair Foundation for Education. (2020, March). *Online learning in the Arab world: An educational model that needs support* (Policy brief no. 1). https://tinyurl.com/fkvapncp

Aboud, F. (2020). The effect of e-learning on EFL teacher identity. *International Journal of English Research*, *6*(2), 22–27. https://tinyurl.com/mspzjmvf

Abuhmaid, A. M. (2020). Teachers' perceptions on the impact of flipped learning on student learning and teacher's role in Jordanian Schools. *Universal Journal of Educational Research*, *8*(3), 1007–1016. https://doi.org/10.13189/ujer.2020.080335

Abu Toameh, K. (2008, March 4). Vanity Fair: Bush approved plot to oust Hamas. *The Jerusalem Post*. Retrieved December 12, 2024 from https://www.jpost.com/Middle-East/Vanity-Fair-Bush-approved-plot-to-oust-Hamas

Acheampong, P., Zhiwen, L., Antwi, H. A., Otoo, A. A. A., Mensah, W. G., & Sarpong, P. B. (2017). Hybridizing an extended technology readiness index with technology acceptance model (TAM) to predict e-payment adoption in Ghana. *American Journal of Multidisciplinary Research*, *5*(2), 172–184. https://tinyurl.com/5fem8xwx

Affouneh, S. (2008). *Education under occupation: Listening to girls' stories.* United Nations Educational, Scientific and Cultural Organization. https://tinyurl.com/5bupn6t3

Affouneh, S., Khlaif, Z. N., Burgos, D., & Salha, S. (2021). Virtualization of higher education during COVID-19: A successful case study in Palestine. *Sustainability*, *13*(12), 6583. https://doi.org/10.3390/su13126583

Affouneh, S. & Raba, A. (2017). An emerging model of e-learning in Palestine: The case of An-Najah National University. *Creative Education*, *8*(2), 189–201. https://doi.org/10.4236/ce.2017.82016

Affouneh, S., Salha, S., & Khlaif, Z. N. (2020). Designing quality e-learning environments for emergency remote teaching in coronavirus crisis. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, *11*(2), 135–137. https://tinyurl.com/ywpsb42c

Aguinaldo, J. P. (2004). Rethinking validity in qualitative research from a social constructionist perspective: From is this valid research? to What is this research valid for? *The Qualitative Report*, *9*(1), 127–136. https://doi.org/10.46743/2160-3715/2004.1941

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl, J. & J. Beckmann (Eds.), *Action control*. Springer. https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice Hall.

Akkari, A. (2004). Socialization, learning and basic education in Koranic schools. *Mediterranean Journal of Educational Studies*, *9*(2), 1–22. https://www.um.edu.mt/library/oar//handle/123456789/19307

Akram, H., Yingxiu, Y., Al-Adwan, A. S., & Alkhalifah, A. (2021). Technology integration in higher education during COVID-19: An assessment of online teaching competencies through technological pedagogical content knowledge model. *Frontiers in Psychology*, *12*, Article 736522. https://doi.org/10.3389/fpsyg.2021.736522

Alea, L. A., Fabrea, M. F., Roldan, R. D. A., & Farooqi, A. Z. (2020). Teachers' Covid-19 awareness, distance learning education experiences and perceptions towards institutional readiness and challenges. *International Journal of Learning, Teaching and Educational Research*, *19*(6), 127–144. https://doi.org/10.26803/ijlter.19.6.8

Alexander, C. (2007). A case study of English language teaching using the internet in Intercollege's language laboratory. *The International Journal of Technology, Knowledge and Society*, *(3)*1, 1–14. https://doi.org/10.18848/1832-3669/CGP/v03i01/55707

Alexander, C. (2012). English language teaching using the Internet. In D. Tsagari & P. Pavlou (Eds.), *Research on English as a foreign language in Cyprus* (1st Ed., Vol. II, pp. 3–32). University of Nicosia Press. https://gnosis.library.ucy.ac.cy/handle/7/52310

Algahtani, H., Shirah, B., Subahi, A., Aldarmahi, A., Ahmed, S. N., & Khan, M. A. (2020). Perception of students about e-learning: A single-center experience from Saudi Arabia. *Dr. Sulaiman Al Habib Medical Journal*, *2*(2), 65–71. https://doi.org/10.2991/dsahmj.k.200327.001

Al-Gherbawi, A. (2022, August 12). Power outage adds to 'unbearable' hardships for Palestinians in Gaza. *Al-Monitor*. https://tinyurl.com/5beeyn9h

Al-Hashmi, S. (2021). A study on the impact of the sudden change to online education on the motivation of higher education students. *Higher Education Studies*, *11*(3), 78–88. https://eric.ed.gov/?id=EJ1311712

Ali, B., Nawanir, G., Nasidi, Y., & Bamgbade, J. A. (2016). Examining technology readiness constructs: A validation study. *Journal of Advanced Research in Business and Management Studies*, *3*(1), 71–84. https://tinyurl.com/3pppz4xs

Ali, R., & Abd Algane, M. (2020). Teaching English literacy in the time of COVID-19 pandemic in higher education: A case study in Saudi Qassim University. *Multicultural Education*, *6*(5), 204–215. https://doi.org/10.5281/zenodo.4374526

Al-Khalidi, I. (2021). Examining teachers' beliefs on developing a digital pedagogical framework based on the SAMR Model for undergraduate English language learning. *International Journal of English Language Education*, *9*(1), 106–125. https://doi.org/10.5296/ijele.v9i1.18306%20

Allen, I. E., & Seaman, J. (2010). *Learning on demand: Online education in the United States, 2009*. Babson Survey Research Group. https://tinyurl.com/2bs298k2

Allen, E., & Seaman, J. (2012). Digital faculty: Professors, teaching and technology, 2012. *Inside Higher Ed*. https://files.eric.ed.gov/fulltext/ED535215.pdf

Allen, M., Omori, K., Cole, A. W., & Burrell, N. (2019). Distance education and student satisfaction. In M. G. Moore & W. C. Diehl (Eds.), *Handbook of distance education* (4th ed., pp. 122–132). Routledge.

Al-Jarf, R. (2020). Distance learning and undergraduate Saudi students' agency during the COVID-19 pandemic. *Bulletin of the Transilvania University of Braşov, Series IV: Philology & Cultural Studies*, *13*(2), 37–54. https://doi.org/10.31926/but.pcs.2020.62.13.2.4

Almahasees, Z., Mohsen, K., & Amin, M. O. (2021). Faculty's and students' perceptions of online learning during COVID-19. *Frontiers in Education*, *6*, Article 638470. https://doi.org/10.3389/feduc.2021.638470

Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, *25*, 5261–5280. https://doi.org/10.1007/s10639-020-10219-y

Almaiah, M. A., & Alyoussef, I. Y. (2019). Analysis of the effect of course design, course content support, course assessment and instructor characteristics on the actual use of E-learning system. *IEEE Access*, *7*, 171907–171922. https//:10.1109/ACCESS.2019.2956349

Al-Maroof, R. S., Salloum, S. A., Hassanien, A. E., & Shaalan, K. (2020). Fear from COVID-19 and technology adoption: The impact of Google Meet during coronavirus pandemic. *Interactive Learning Environments*, *31*(3), 1293–1308. https://doi.org/10.1080/10494820.2020.1830121

Almutairi, N. H. (2007). *The influence of educational and sociocultural factors on the learning styles and strategies of female students in Saudi Arabia* [Doctoral dissertation, University of Leicester]. EThOS e-theses online service. https://tinyurl.com/nhb73s93

Al-Nofaie, H. (2020). Saudi university students' perceptions towards virtual education during Covid-19 pandemic: A case study of language learning via Blackboard. *Arab World English Journal*, *11*(3), 4–20. https://doi.org/10.24093/awej/vol11no3.1

Alqahtani, A. Y., & Rajkhan, A. A. (2020). E-Learning critical success factors during the COVID-19 pandemic: A comprehensive analysis of e-learning managerial perspectives. *Education Sciences*, *10*(9), 216. https://doi.org/10.3390/educsci10090216

Al-Quds Open University. (2021). *Open learning center*. https://www.qou.edu/en/olc/index.jsp

Al-Samiri, R. A. (2021). English language teaching in Saudi Arabia in response to the COVID-19 pandemic: Challenges and positive outcomes. *Arab World English Journal (AWEJ) Special Issue on Covid 19 Challenges*, (1), 147–159. https://dx.doi.org/10.24093/awej/covid.11

Al Senaidi, S., Lin, L., & Poirot, J. (2009). Barriers to adopting technology for teaching and learning in Oman. *Computers & Education*, *53*(3), 575–590. https://doi.org/10.1016/j.compedu.2009.03.015

Alvesson, M., & Sköldberg, K. (2009). *Reflexive methodology: New vistas for qualitative research* (2nd ed.). SAGE.

Anati, A. (2020, October 1). *The resiliency of Palestine during COVID-19: Providing equitable service delivery to its most vulnerable residents.* International City/County Management Association. https://icma.org/articles/pm-magazine/resiliency-palestine-during-covid-19

Anderson, T., Liam, R., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning*, *5*(2). 1–17. https://doi.org/10.24059/olj.v5i2.1875

Andoniou, C. (2024). Technology integration and digital transformation in post-COVID-19 hybrid education. In R. H. Khamis, A. Hamdan, B. Alareeni, & R. E. Khoury (Eds.) *Information and communication technology in technical and vocational education and training for sustainable and equal opportunity* (pp. 303–315). Springer. https://doi.org/10.1007/978-981-99-6909-8_27

Anera. (2020, July 29). Understanding education in Palestine and the need for educational aid. *The Olive Press Blog*. https://www.anera.org/blog/need-for-educational-aid-in-palestine/

Anera. (2024). *What are Area A, Area B, and Area C in the West Bank?* https://www.anera.org/what-are-area-a-area-b-and-area-c-in-the-west-bank/

Anggrainingsih, R., Umam, M. Z., & Setiadi, H. (2018). Determining e-learning success factor in higher education based on user perspective using Fuzzy AHP. In *MATEC Web of Conferences*, *154*, Article 03011. EDP Sciences. https://doi.org/10.1051/matecconf/201815403011

Appavoo, P. (2020). Acceptance of technology in the classroom: A qualitative analysis of mathematics teachers' perceptions. In S. C. Satapathy, V. Bhateja, B. L. Nguyen, G-N. Nguyen, & D-N. Le (Eds.), *Frontiers in intelligent computing: Theory and applications* (pp. 355–364). Springer.

Apriandi, L., Ajidarma, P., Hasby, F. M., & Irianto, D. (2019, October). Analysis of humanware readiness level for a technology transfer process: Case study in arms manufacturing Industry. In M. N. O. Zahid, R. A. Aziz, A. R. Yusoff, N. M. Yahya, F. A. Aziz, & M. Y. Abu (Eds.), *iMEC-APCOMS 2019: Proceedings of the 4th international manufacturing engineering conference and the 5th Asia Pacific conference on manufacturing systems* (pp. 60–66). Springer Nature.

Arasaratnam-Smith, L. A., & Northcote, M. (2017). Community in online higher education: Challenges and opportunities. *Electronic Journal of e-Learning*, *15*(2), 188–198. https://files.eric.ed.gov/fulltext/EJ1141773.pdf

Arcueno, G., Honeyleth, A., Manalili, T. A., & Garcia, J. A. (2021, , July 7–9). *TPACK and ERT: Understanding teacher decisions and challenges with integrating technology in planning lessons and instructions* [Paper presentation]. DLSU Research Congress, De La Salle University, Manila, Philippines. https://easychair.org/publications/preprint/STc4

Arif, M., Illahi, M., Karim, A., & Shamshirband, S. (2015). An architecture of agent-based multi-layer interactive e-learning and e-testing platform. *Quality & Quantity*, *49*(6), 2435–2458. https://doi.org/10.1007/s11135-014-0121-9

Artino, A. R. (2012). Emotions in online learning environments: Introduction to the special issue. *The Internet and Higher Education*, *15*(3), 137–140. https://doi.org/10.1016/j.iheduc.2012.04.001

Aruleba, K., Jere, N., & Matarirano, O. (2022). An evaluation of technology adoption during remote teaching and learning at tertiary institution by gender. *IEEE Transactions on Computational Social Systems*, *10*(3), 1335–1346. https://doi.org/10.1109/TCSS.2022.3163912

Ayres, L. (2008). Thematic coding and analysis. In L. M. Given (Ed.) *SAGE Encyclopedia of Qualitative Research Methods* (pp. 867–868). SAGE.

Bacova, D., & Turner, A. (2023). Teacher vulnerability in teacher identity in times of unexpected social change. *Research in Post-Compulsory Education*, *28*(3), 349–372. https://doi.org/10.1080/13596748.2023.2221115

Badereddeen, Z. S. (2023). Effectiveness of collaborative Zoom breakout rooms discussion on eliminating subject-verb agreement difficulties encountered by Palestinian English majors. *International Journal of Linguistics, Literature and Translation*, *6*(2), 22–36. https://doi.org/10.32996/ijllt.2023.6.2.4

Badry, F. (2011). Appropriating English: Languages in identity construction in the United Arab Emirates. In A. Al-Issa & L. S. Dahan (Eds.), *Global English and Arabic: Issues of language, culture, and identity* (pp. 81–122). Peter Lang.

Bailey, D. R., & Lee, A. R. (2020). Learning from experience in the midst of COVID-19: Benefits, challenges, and strategies in online teaching. *Computer-Assisted Language Learning Electronic Journal*, *21*(2), 178-198. http://callej.org/journal/21-2/Bailey-Lee2020.pdf

Bakerson, M., Trottier, T., & Mansfield, M. (2015). The value of embedded formative assessment: An integral process in online learning environments implemented through advances in technology. In S. Koç, X. Liu, & P. Wachira (Eds.), *Assessment in online and blended learning environments* (pp. 3–20). Information Age Publishing.

Baldwin, S., Ching, Y. H., & Hsu, Y. C. (2018). Online course design in higher education: A review of national and state-wide evaluation instruments. *Tech Trends*, *62*, 46–57. https://doi.org/10.1007/s11528-017-0215-z

Bandura, A. (1982). Self-efficacy mechanisms in human agency. *American Psychologist*, *37*(2), 122–147. https://doi.org/10.1037/0003-066X.37.2.122

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman and Company.

Barnawi, O. Z. (2017). *Neoliberalism and English language education policies in the Arabian Gulf.* Routledge.

Baroudi, S., Shaya, N. (2022). Exploring predictors of teachers' self-efficacy for online teaching in the Arab world amid COVID-19. *Education and Information Technologies*, *27*, 8093–8110. https://doi.org/10.1007/s10639-022-10946-4

Barr, R. B. & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change: The Magazine of Higher learning*, 27(6), 12–26. https://doi.org/10.1080/00091383.1995.10544672

Barrett, A., Kajamaa, A., & Johnston, J. (2020). How to… be reflexive when conducting qualitative research. *The Clinical Teacher*, *17*(1), 9–12. https://doi.org/10.1111/tct.13133

Barron, B. (2006). Interest and self-sustained learning as catalysts of development: A learning ecologies perspective. *Human Development,* 49, 193–224. https://doi.org/10.1159/000094368

Barrot, J. S., Llenares, I. I., & Del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and information technologies*, *26*(6), 7321–7338. https://doi.org/10.1007/s10639-021-10589-x

Bartley, J. M. (2005). Assessment is as assessment does: A conceptual framework for understanding online assessment and measurement. In M. Hricko & S. L. Howell, *Online assessment and measurement: Foundations and challenges* (pp. 1–45). Information Science Publishing.

Basbeth, F., Ahmad Saufi, R., & Sudharmin, K. B. (2021). E-teaching satisfaction in a black swan moment: The effect of student engagement and institutional support. *Quality Assurance in Education*, *29*(4), 445–462. https://doi.org/10.1108/QAE-03-2021-0039

Bashitialshaaer, R., Alhendawi, M., & Avery, H. (2021). Obstacles to applying electronic exams amidst the COVID-19 pandemic: An exploratory study in the Palestinian universities in Gaza. *Information*, *12*(6), 1–28. https://doi.org/10.3390/info12060256

Bashitialshaaer, R., Alhendawi, M., & Lassoued, Z. (2021). Obstacle comparisons to achieving distance learning and applying electronic exams during COVID-19 pandemic. *Symmetry*, *13*(1), Article 99. https://doi.org/10.3390/sym13010099

Bates, A.W. (2019). *Teaching in a digital age* (2nd ed.). Vancouver, B.C.: Tony Bates Associates Ltd. https://pressbooks.bccampus.ca/teachinginadigitalagev2/

Bates, A. W. (2022). *Teaching in a digital age: Guidelines for designing teaching and learning* (3rd ed.). Tony Bates Associates Ltd. https://tinyurl.com/46mvdd3x

Battaglia, M. P. (2008). Nonprobability sampling. In P. J. Lavrakas (Ed.) *Encyclopedia of survey research methods* (pp. 535–526). SAGE. https://dx.doi.org/10.4135/9781412963947

Batts, D., Pagliari, L., Mallett, W., & McFadden, C. (2010). Training for faculty who teach online. *The Community College Enterprise*, *16*(2), 21–31. https://www.learntechlib.org/p/109611/

Bax, S. (2003). CALL—Past, present and future. *System*, *31*(1), 13–28. https://doi.org/10.1016/S0346-251X(02)00071-4

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, *13*(4), 544–559. http://nsuworks.nova.edu/tqr/vol13/iss4/2

Black, P. J. (1998). *Testing: friend or foe? The theory and practice of assessment and testing*. Falmer Press.

Beatty, B. J. (Ed.). (2019). *Hybrid-Flexible course design: Implementing student-directed hybrid classes* (1st ed.). EdTech Books. https://edtechbooks.org/hyflex

Beatty, K. (2010). *Teaching & researching: Computer-Assisted language learning* (2nd ed.). Longman.

Beaunoyer, E., Dupéré, S., & Guitton, M.J. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. *Computers in Human Behavior*, *111*, Article 106424. https://doi.org/10.1016/j.chb.2020.106424

Belgrave, L. L. & Kapriskie, S. (2019). Coding for grounded theory. In A. Bryant, & K. Charmaz (Eds.), *The SAGE handbook of grounded theory* (pp. 167–186). Sage.

Benjamin, S. M. (2017). *Factors that influence and impede implementation of information communication technology in a secondary school's English language arts classroom: Selected Tobago teachers' perspectives* (EDRS6900: Project Report) [Doctoral Dissertation, The University of the West Indies]. UWISpace. https://uwispace.sta.uwi.edu/dspace/handle/2139/46336

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, *15*(2), 219–234. https://doi.org/10.1177/1468794112468475

Bernard, H. R. (2002). *Research methods in anthropology: Qualitative and quantitative approaches* (3rd ed.). Alta Mira Press.

Bernard, H. R., & Ryan, G. W. (2016). Finding themes. In H. R. Bernard, A. Wutich, & G. Ryan (Eds.), *Analyzing qualitative data: Systematic approaches* (pp. 101–124). SAGE.

Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers & Education*, *58*(2), 843–855. https://doi.org/10.1016/j.compedu.2011.10.010

Bicalho, R. N. D. M., Coll, C., Engel, A., & Lopes de Oliveira, M. C. S. (2023). Integration of ICTs in teaching practices: Propositions to the SAMR model. *Educational Technology Research and Development*, *71*(2), 563–578. https://doi.org/10.1007/s11423-022-10169-x

Bin Dahmash, N. (2020). I couldn't join the session': Benefits and challenges of blended learning amid COVID-19 from EFL students. *International Journal of English Linguistics*, *10*(5), 221–230. https://doi.org/10.5539/ijel.v10n5p221

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research,* *26*(13), 1802–1811. https://doi.org/10.1177/1049732316654870

Bishop, B. J., Sonn, C. C., Drew, N. M., & Contos, N. E. (2002). The evolution of epistemology and concepts in an iterative-generative reflective practice: The importance of small differences. *American Journal of Community Psychology*, *30*(4), 493–510. https://doi.org/10.1023/A:1015855801188

Blake, R. (2016). Distance education for second and foreign language learning. In S. Thorne, & S. May (Eds.) *Language, Education and Technology* (pp. 1–12). Springer. https://doi.org/10.1007/978-3-319-02328-1_13-1

Blatter, J. K. (2008). Case study. In L. M. Given (Ed.) *SAGE Encyclopedia of qualitative research methods* (pp. 68–71). SAGE.

Blundell, C. N., Mukherjee, M., & Nykvist, S. (2022). A scoping review of the application of the SAMR model in research. *Computers and Education Open*, *3*, Article 100093. https://doi.org/10.1016/j.caeo.2022.100093

Blundell, G. E., Castañeda, D. A., & Lee, J. (2020). A multi-institutional study of factors influencing faculty satisfaction with online teaching and learning. *Online Learning*, *24*(4), 229–253. https://doi.org/10.24059/olj.v24i4.2175

Bohstedt, B., & Richard, S. (2020, January 8). Digital agility: Embracing a holistic approach to digital literacy in the liberal arts. *EDUCAUSE Review*. https://tinyurl.com/yz4runfe

Bourdieu, P., & Wacquant, L. (1992). *An invitation to reflexive sociology*. University of Chicago Press.

Borg, S. (2015a). Researching teachers' beliefs. In B. Paltridge & A. Phakiti (Eds.), *Research methods in applied linguistics: A practical resource* (2nd ed., pp. 368–381). Bloomsbury Academic.

Borg, S. (2015b). *Teacher cognition and language education: Research and practice*. Bloomsbury Academic.

Borg, S., & Sanchez, H. S. (2020). Cognition and good language teachers. In C. Griffiths & Z. Tajeddin (Eds.), *Lessons from good language teachers* (pp. 16–27). Cambridge University Press.

Bourke, B. (2014). Positionality: Reflecting on the research process. *The Qualitative Report*, *19*(33), 1–9. https://doi.org/10.46743/2160-3715/2014.1026

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S. R., Al-Freih, M., Pete, J., Olcott, D. Jr., Rodes, V., Aranciaga, I., Bali, M., Alvarez, A. V. Jr., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., de Coëtlogon, P., … Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, *15*(1), 1–126. https://tinyurl.com/4axf8mse

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, *15*(1), i–vi. http://asianjde.com/ojs/index.php/AsianJDE/article/view/447

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology*, *Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association.

Braun V., Clarke V., Hayfield N., & Terry, G. (2019). Thematic analysis. In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 843–860). Springer. https://doi.org/10.1007/978-981-10-5251-4_103

Brinkman, S. (2018). The interview. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 997-1038). SAGE.

Brinkmann, S., & Kvale, S. (2015). *Interviews: Learning the craft of qualitative research interviewing* (3rd ed.). SAGE.

British Educational Research Association [BERA]. (2018). *Ethical guidelines for educational research* (4th ed.). https://tinyurl.com/2p8fethj

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by Nature and Design*. Harvard University Press.

Browning, M., Banik, B., Bourke, S., Abdelkader, A., Anish, L., & Muduwa, M. (2023). The impact of COVID 19 restrictions on Australian nurse academics attitudes to technology: A survey of Technology Readiness Index 2.0. *Nurse Education in Practice*, *71*, Article 103719. https://doi.org/10.1016/j.nepr.2023.103719

Bryant, A. (2019). Senior editor's introduction. In A. Bryant, & K. Charmaz (Eds.), *The SAGE handbook of grounded theory* (pp. xxv–xxvii). SAGE.

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press. https://tinyurl.com/29z628pu

Buckingham, D. (2015). Defining digital literacy: What do young people need to know about digital media? *Nordic Journal of Digital Literacy Special Issue/2015*, (4), 21–34. https://doi.org/10.18261/issn.1891-943X

Buckley, A., Brown, D., Potapova-Crighton, O., & Abdelrhman, Y. (2021, August 7). Sticking plaster or long-term option? Take-home exams at Heriot-Watt University. In P. Baughan, J. Moody, & E. Morris (Eds.), *Assessment and feedback in a post-pandemic era: A time for learning and inclusion* (pp. 127–137). https://tinyurl.com/4fxnpu64

Buschmaas, J., Chan, C., Mendler, L., Qi, C., & Senkpiel, H. (2019). *Measuring the digital divide in the Asia-Pacific Region for the United Nations Economic and Social Commission for Asia and the Pacific* (ESCAP). United Nations Economic and Social Commission for Asia and the Pacific. https://tinyurl.com/4kc5ebc4

Cains, J. T. (2019). *What is Google Classroom?* https://tinyurl.com/bduersup

Cambridge University Press. (2020, November 5–16). *How has 2020 changed academic English teaching* [Infographic]? https://tinyurl.com/2exduppk

Campbell, J. L., Quincy, C., Osserman, J., & Pedersen, O. K. (2013). Coding in-depth semistructured interviews: Problems of unitization and intercoder reliability and agreement. *Sociological Methods & Research*, *42*(3), 294–320. https://doi.org/10.1177/0049124113500475

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, *25*(8), 652–661. https://doi.org/10.1177/1744987120927206

Carless, D. (2007). Learning-oriented assessment: Conceptual bases and practical implications. *Innovations in Education and Teaching International*, *44*(1), 57–66. https://doi.org/10.1080/14703290601081332

Carnevale, A. P. (2016). Higher education and democratic capitalism. *Educause Review*, *51*(6), 10–26. https://tinyurl.com/3pd87p3y

Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, *43*(4), 466–487. https://doi.org/10.1080/02619768.2020.1821184

Carter, S. M., Shih, P., Williams, J., Degeling, C., & Mooney-Somers, J. (2021). Conducting qualitative research online: Challenges and solutions. *The Patient-Patient-Centered Outcomes Research*, *14*(6), 711–718. https://doi.org/10.1108/QROM-10-2014-1252

Cavinato, A. G., Hunter, R. A., Ott, L. S., & Robinson, J. K. (2021). Promoting student interaction, engagement, and success in an online environment. *Analytical and Bioanalytical Chemistry*, *413*(6), 1513–1520. https://doi.org/10.1007/s00216-021-03178-x

Cennimo, D. J. (2021, April 19). How did the coronavirus outbreak start? *Medscape*. https://tinyurl.com/vmwtr6zf

Chandler, K. (2016). Using breakout rooms in synchronous online tutorials. *Journal of Perspectives in Applied Academic Practice*, *4*(3), 16–23. https://doi.org/10.14297/jpaap.v4i3.216

Charmaz, K. (2014). *Constructing grounded theory* (2nd Ed.). SAGE.

Chen, D. T. V., Wang, Y. M., & Lee, W. C. (2016). Challenges confronting beginning researchers in conducting literature reviews. *Studies in Continuing Education*, *38*(1), 47–60. https://doi.org/10.1080/0158037X.2015.1030335

Chiasson, K., Terras, K., & Smart, K. (2015). Faculty perceptions of moving a face-to-face course to online instruction. *Journal of College Teaching & Learning* (TLC), *12*(3), 321–240. https://doi.org/10.19030/tlc.v12i3.9315

Chin, R., & Benne, K. D. (1969). General strategies for effecting changes in human systems. In W. Bennis, K. Benne, & R. Chin, (Eds.), *The planning of change* (2nd ed., pp. 32–59). Holt, Rinehart & Winston.

CH'NG, L. K. (2019). Learning emotions in e-learning: How do adult learners feel? *Asian Journal of Distance Education*, *14*(1), 34–46. https://tinyurl.com/2ck563fz

Chun, D. M. (2011). Computer-assisted language learing. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (Vol. II, pp. 663–680). Routledge.

Chun, T. W., & Yunus, M. M. (2023). Exploring teachers' technology acceptance during COVID-19 pandemic: A systematic review (2020-2022). *International Journal of Evaluation and Research in Education* (IJERE), *12*(2), 956–968. https://doi.org/10.11591/ijere.v12i2.25398

Chuttur M. Y. (2009). Overview of the technology acceptance model: Origins, developments and future directions. *Sprouts: Working Papers on Information Systems*, *9*(37). https://adam.co/lab/pdf/test/pdfs/TAMReview.pdf

Cibaroğlu, M. O., Uğur, N., & Turan, A. (2021). Extending technology acceptance model (TAM) with the theory of technology readiness. *International Journal of Economics and Administrative Studies*, (31), 1–22. https://doi.org/10.18092/ulikidince.700939

Cicco, G. (2013). Faculty development on online instructional methods: A protocol for counselor educators. *Journal of Educational Technology*, *10*(2), 1–6. https://files.eric.ed.gov/fulltext/EJ1101734.pdf

Clarin, A. S., & Baluyos, E. L. (2022). Challenges encountered in the implementation of online distance learning. *EduLine: Journal of Education and Learning Innovation*, *2*(1), 33–46. https://doi.org/10.35877/454RI.eduline591

Cochran, C. E., & Benuto, L. T. (2016). Faculty transitions to online instruction: A qualitative case study. *The Online Journal of Distance Education and e-Learning*, *4*(3), 42–54. https://tinyurl.com/v8h7te3t

Cohen, L., Manion, L., & Morrison, K. R. B. (2013). *Research methods in education* (7th ed.). Routledge.

Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS quarterly*, 189–211. https://doi.org/10.2307/249688

Conrad, A. M., & Munro, D. (2008). Relationships between computer self-efficacy, technology, attitudes and anxiety: Development of the computer technology use scale (CTUS). *Journal of Educational Computing Research*, *39*(1), 51–73. https://doi.org/10.2190/EC.39.1.

Conrad, D., & Openo, J. (2018). *Assessment strategies for online learning: Engagement and authenticity*. Athabasca University Press. https://doi.org/10.15215/aupress/9781771992329.01

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). SAGE.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). SAGE.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). SAGE.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed method research* (2nd ed.). SAGE.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). SAGE.

Cristiano, F. (2019). Internet access as human right: A dystopian critique from the occupied Palestinian territory. In G. Blouin-Genest, M. C. Doran, & S. Paquerot (Eds.), *Human rights as battlefields: Changing practices and contestations* (pp. 249–268). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-91770-2_12

Crompton, H., Chigona, A., & Burke, D. (2023). Teacher resilience during COVID-19: Comparing teachers' shift to online learning in South Africa and the United States. *TechTrends*, 1–14. https://doi.org/10.1007/s11528-022-00826-6

Csikszentmihalyi, M. (2000). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass. (Original work published 1975)

Dana, T. (2021). Dominate and pacify: Contextualizing the political economy of the Occupied Palestinian Territories since 1967. In A. Tartir, T. Dana, & T. Seidel (Eds.), *Political economy of Palestine: Critical, interdisciplinary, and decolonial perspectives* (pp. 25–47). Palgrave Macmillan.

Da Silva, C., Salam, Y., Mulligan, M., & Britton, B. (2024, April 4). *Class destroyed: The rise and ruin of Gaza's revered universities*. NBC News. https://tinyurl.com/mr4ujzdj

Dave, K., Lawrence, S., & Pennock, D. M. (2003, May). Mining the peanut gallery: Opinion extraction and semantic classification of product reviews. In *Proceedings of the 12th*

international conference on World Wide Web (pp. 519–528). Association for Computing Machinery. https://doi.org/10.1145/775152.775226

Davies, G. (2006). Language education, computer-assisted. In K. Brown (Ed.), *Encyclopedia of language & linguistics* (2nd ed., pp. 460–470). Elsevier Ltd.

Davies, G., Otto, S. E. K., & Rüschoff, B. (2013). Historical perspectives on CALL. In M. Thomas, H. Reinders, & M. Warschauer (Eds.), *Contemporary computer-assisted language learning* (pp. 19–38). Bloomsbury.

Davies, J. A., Davies, L. J., Conlon, B., Emerson, J., Hainsworth, H., & McDonough, H. G. (2020). Responding to COVID-19 in EAP contexts: A comparison of courses at four Sino-foreign universities. *International Journal of TESOL Studies*, *2*(2), 32–52. https://doi.org/10.46451/ijts.2020.09.04

Davis, F. D. (1980) *Technology acceptance model for empirically testing new end-user information systems theory and results* [Doctoral Dissertation, Massachusetts Institute of Technology]. DSpace@MIT. http://hdl.handle.net/1721.1/15192

Davis, F. D. (1987). *User acceptance of information systems: The technology acceptance model* (TAM) [Working Paper #529]. University of Michigan School of Business Administration. https://hdl.handle.net/2027.42/35547

Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), pp. 319–340. https://doi.org/10.2307/249008

Davis, F. D., & Granić, A. (2024). *The technology acceptance model: 30 years of TAM*. Springer, Cham.

Day, T., Chang, I. C. C., Chung, C. K. L., Doolittle, W. E., Housel, J., & McDaniel, P. N. (2021). The immediate impact of COVID-19 on postsecondary teaching and learning. *The Professional Geographer, 73*(1), 1–13. https://doi.org/10.1080/00330124.2020.1823864

DeGagne, J. C., & Walters, K. (2009). Online teaching experience: A qualitative metasynthesis (QMS). *MERLOT Journal of Online Learning and Teaching*, *5*, 577–589. https://jolt.merlot.org/vol5no4/degagne_1209.pdf

DeGagne, J. C., & Walters, K. J. (2010). The lived experience of online educators: Hermeneutic phenomenology. *Journal of Online Learning and Teaching*, *6*(2), 357–366. https://jolt.merlot.org/vol6no2/degagne_0610.pdf

De Hass, J. (1934). *History of Palestine: The last two thousand years*. Macmillan.

Denzin, N. K., & Lincoln, Y. (1994). *Handbook of qualitative research.* SAGE.

Denzin, N. K., & Lincoln, Y. S. (2011). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 1–19). SAGE.

Denzin, N. K., & Lincoln, Y. S. (2018). Preface. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 10–23). SAGE.

DeSantis, L., Ugarriza, D. (2000). The concept of theme as used in qualitative nursing research. *Western Journal of Nursing Research, 22*(3), 351–372. https://doi.org/10.1177/019394590002200308

Dewey. J. (1938/1997). *Experience & education: The Kappa Delta Pi lecture series* (1ˢᵗ Touchstone Edition). Simon & Schuster.

DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*, *40*(4), 314–321. https://doi.org/10.1111/j.1365-2929.2006.02418.x

Di Mantova, W. D. (2020, April 3). Learning in the time of COVID: Is this the triumph of the web? *LinkedIn*. https://tinyurl.com/44nhuttr

Distler, V., Lallemand, C., & Koenig, V. (2020). How acceptable is this? How user experience factors can broaden our understanding of the acceptance of privacy trade-offs. *Computers in Human Behavior*, *106*, 1–10. https://doi.org/10.1016/j.chb.2019.106227

Dwiono, R., Rochsantiningsih, D., & Suparno, S. (2018). Investigating the integration level of information and communication technology (ICT) in the English language teaching. *International Journal of Language Teaching and Education*, *2*(3), 259–274. https://doi.org/10.22437/ijolte.v2i3.5752

Doğan, N., Kıbrıslıoğlu Uysal, N., Kelecioğlu, H., & Hambleton, R. K. (2020). An overview of e-assessment. *Hacettepe University Journal of Education*, *35*, 1–5. https://doi.org/10.16986/HUJE.2020063669

Doğru, O. (2020). An investigation of pre-service visual arts teachers' perceptions of computer self-efficacy and ettitudes towards web-based instruction. *International Journal of Research in Education and Science*, *6*(4), 629–637. https://doi.org/10.46328/ijres.v6i4.1454

Dörnyei, Z. (2003). Attitudes, orientations, and motivations in language learning: Advances in theory, research, and applications. *Language Learning*, *53*(1), 3–32. https://doi.org/10.1111/1467-9922.53222

Dörnyei, Z., & Schmidt, R. (Eds.). (2001). *Motivation and second language acquisition* (pp. 1–19). Second Language Teaching and Curriculum Center, University of Hawai'i at Manoa.

Dowling, M. (2008). Reflexivity. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 747–748). SAGE.

Dron, J. (2007). *Control and constraint in e-learning: Choosing when to choose*. Idea Group Publishing.

Duignan, G. (2012). *Teaching international teachers: How Saudi Arabian teachers experience learning about teaching during a New Zealand professional development course* [Doctoral dissertation, University of Canterbury]. UC Research Repository. http://dx.doi.org/10.26021/9399

Dweikat, K. A. J., & Raba, A. A. (2019). English as a foreign language (EFL) teachers' perceptions of flipped classroom model in Palestine. *Islamic University-Gaza Journal of Educational and Psychological Sciences*, *27*(3), 29–47. https://tinyurl.com/4s8nrwsp

Dwyer, D. C., Ringstaff, C., & Sandholtz, J. H. (1990). *The evolution of teachers' instructional beliefs and practices in high-access-to-technology classrooms: First-fourth year findings* [Report No. 8]. Apple Computer, Inc. https://tinyurl.com/yeyn6d8u

Dwyer, D. C., Ringstaff, C., & Sandholtz, J. H. (1991). Changes in teachers' beliefs and practices in technology-rich classrooms. *Educational Leadership*, *48*(8), 45–52. https://tinyurl.com/umt3wsbz

Dy, L. (2022). TPACK in times of emergency remote teaching: Status of newly-hired public school teachers. *International Journal of Science and Management Studies*, *5*(6), 120–130. https://doi.org/10.51386/25815946/ijsms-v5i6p113

Eachempati, P., & Ramnarayan, K. (2020, May 5). Ten maxims for out of class learning to outclass the academic challenges of COVID-19. *MedEdPublish*, *9*. https://doi.org/10.15694/mep.2020.000089.1

Elçiçek, M. (2021). An investigation into the technology integration levels of pre-service teachers in compulsory distance education (COVID-19 Pandemic). *International Online Journal of Education and Teaching*, *8*(3), 2060–2080. https://eric.ed.gov/?id=EJ1308218

Elzainy, A., El Sadik, A., & Al Abdulmonem, W. (2020). Experience of e-learning and online assessment during the COVID-19 pandemic at the College of Medicine, Qassim University. *Journal of Taibah University Medical Sciences*, *15*(6), 456–462. https://doi.org/10.1016/j.jtumed.2020.09.005

Engageli. (2024). *About Engageli: Active learning, real results*. https://www.engageli.com/about

Engstrom, J. (2005, April 13). Why some social network services work and others don't-Or: the case for object-centered sociality [Archived Post]. *Zengstrom*. https://perma.cc/P9EC-5JPP

ERASMUS+TEFL. (2024). *Teaching English as a foreign language in Palestinian higher education institutions: An e-learning initiative that bridges educational and socio-political gaps* (TEFL-ePAL). Palestine Ahliya University. Retrieved December 6, 2024 from: https://paluniv.edu.ps/?page_id=140291

Ertmer, P. A. (1999). Addressing first-and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, *47*(4), 47–61. https://doi.org/10.1007/BF02299597

Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration? *Educational technology research and development*, *53*(4), 25–39. https://doi.org/10.1007/BF02504683

Esawe, A. T., Esawe, K. T., & Esawe, N. T. (2023). Acceptance of the learning management system in the time of COVID-19 pandemic: An application and extension of the unified theory of acceptance and use of technology model. *E-Learning and Digital Media*, *20*(2), 162–190. https://doi.org/10.1177/2042753022110778

Escobar, C. P. (2020, April 10). El gran test de las clases 'online'. *La Tercera*. https://tinyurl.com/a8a5ru84

Essex, D., Kerner, S. M., & Gillis, A. S. (2023, September). *What is Web 3.0 (Web 3)? Definition, guide, and history*. TechTarget. https://tinyurl.com/y2va4c9n

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

Evans, R. (2015, Fall). Why a school doesn't run – or change – like a business. *Independent School Magazine*. https://tinyurl.com/2y2s6dk2

Evans, S., & Myrick, J. G. (2015). How MOOC instructors view the pedagogy and purposes of massive open online courses. *Distance Education*, *36*(3), 295–311. https://doi.org/10.1080/01587919.2015.1081736

Faek, R. (2020, March 12). *Coronavirus outbreak forces Arab countries to consider long-ignored online education*. Al Fanar Media. https://tinyurl.com/wr77th4w

Fain, J. A. (2021) *Reading understanding and applying nursing research* (6th ed.). F. A. Davis Company.

Fairlie, R., & Loyalka, P. (2020). Schooling and Covid-19: Lessons from recent research on EdTech. *NPJ Science of Learning*, *5*(13), Article 13. https://doi.org/10.1038/s41539-020-00072-6

Fallery, B., & Rodhain, F. (2011). Three epistemological foundations for e-learning models. In *International Conference on e-Education, Entertainment and e-Management* (pp. 131–154). https://hal.science/hal-00777835/

Farid, S., Ahmad, R., Alam, M., Akbar, A., & Chang, V. (2018). A sustainable quality assessment model for the information delivery in e-learning systems. *Information Discovery and Delivery*, *46*(1), 1–25. https://doi.org/10.1108/IDD-11-2016-0047

Fayoumi, S. (2024, July 26). Every university in Gaza has been destroyed. So have these students' dreams. *The Nation*. https://tinyurl.com/524uu4ps

Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, *10*(4), Article 86. https://doi.org/10.3390/soc10040086

Fink, A. (2020). *Conducting research literature reviews: From the internet to paper* (5th ed.). SAGE.

Finlay, L. (2002). Outing the researcher: The provenance, process, and practice of reflexivity. *Qualitative Health Research*, *12*(4), 531–545. https://doi.org/10.1177/104973202129120052

Fisk, P. (2017, January 24). *The future of learning will be dramatically different, in school and throughout life*. https://tinyurl.com/263jvjkt

Flick, U. (2022). *An introduction to qualitative research* (5th ed.). SAGE.

Florida Center for Instructional Technology (2024). Background and development of the TIM. *Technology Integration Matrix*. University of South Florida. https://fcit.usf.edu/matrix/matrix/background/

Foddy, W. (1993). *Constructing questions for interviews and questionnaires*. Cambridge University Press.

Fontanillas, T., Carbonell, M., & Catasús, M. (2016). E-assessment process: Giving a voice to online learners. *International Journal of Educational Technology in Higher Education*, *13*, Article 20. https://doi.org/10.1186/s41239-016-0019-9

Foreman-Brown, G., Fitzpatrick, E., & Twyford, K. (2023). Reimagining teacher identity in the post-Covid-19 university: Becoming digitally savvy, reflective in practice, collaborative, and relational. *Educational and Developmental Psychologist*, *40*(1), 18–26. https://doi.org/10.1080/20590776.2022.2079406

Fox, N.J. (2008) Post-positivism. In L. M. Given (Ed.), The SAGE encyclopedia of qualitative research methods (pp. 659–664). SAGE.

Francis, J. (2017). *The effects of technology on student motivation and engagement in classroom-based learning* [Doctoral dissertation, University of New England]. DUNE: DigitalUNE. https://dune.une.edu/theses/121

Frass, L. R., Rucker, R. D., & Washington, G. (2017). An overview of how four institutions prepare faculty to teach online. *Journal of Online Higher Education*, *1*(1), 1–7. https://tinyurl.com/57u2ce8d

Freire, P. (2011). The banking concept of education. In E. B. Hilty (Ed.), *Thinking about schools: A foundations of education reader* (pp. 117–128). Westview Press.

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, *20*(9), 1408–1416. https://scholarworks.waldenu.edu/facpubs/455/

Galindo, D., Montoya, L., & Fortínez, B. (2011). *Humanware: The key element in educational technology projects*. Universidad Dr. José Matías Delgado. https://tinyurl.com/ycymkkbr

Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational research: An introduction* (7th ed.). A & B Publications.

Galvis, H. A. (2012). Understanding beliefs, teachers' beliefs and their impact on the use of computer technology. *Profile Issues in Teachers' Professional Development*, *14*(2), 95–112. http://www.scielo.org.co/pdf/prf/v14n2/v14n2a07.pdf

Gao, L. X., & Zhang, L. J. (2020). Teacher learning in difficult times: Examining foreign language teachers' cognitions about online teaching to tide over COVID-19. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.549653

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. Edward Arnold.

Gardner, R. (2001). In Z. Dörnyei & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 1–19). Second Language Teaching and Curriculum Center, University of Hawai'i at Manoa.

Gardner, R. C., & Smythe, P. C. (1975). Motivation and second-language acquisition. *Canadian Modern Language Review*, *31*(3), 218–233. https://doi.org/10.3138/cmlr.31.3.218

Garrison, D. R. (1989). *Understanding distance education: A framework for the future.* Routledge.

Garrison, D. R. (2003). Self-directed learning and distance education. In M. G. Moore & W. G. Anderson (Eds.), *Handbook of distance education* (4th ed., pp. 161–168). Lawrence Erlbaum Associates.

Garrison, D. R. (2007). Online community of inquiry review: Social, cognitive, and teaching presence issues. *Journal of Asynchronous Learning Networks*, *11*(1), 61–72. https://eric.ed.gov/?id=EJ842688

Garrison, D. R., & Anderson, T. (2003). *E-learning in the 21st century. A framework for research and practice*. RoutledgeFalmer.

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, *2*(2–3), 87–105. https://doi.org/10.1016/S1096-7516(00)00016-6

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education*, *13*(1–2), 5–9. https://doi.org/10.1016/j.iheduc.2009.10.003

Gaudry, A. (2015). Researching the resurgence: Insurgent research and community-engaged methodologies in 21st-century academic inquiry. In S. Strega & L. Brown (Eds.), *Research as resistance: Revisiting critical, Indigenous and anti-oppressive approaches to research* (2nd ed., pp. 243–265). Canadian Scholars Press.

Garzon, J., & Garzon, J. (2023). Teachers' digital literacy and self-efficacy in blended learning. *International Journal of Multidisciplinary Educational Research and Innovation*, *1*(4), 162–174. https://doi.org/10.17613/cmjv-1386

Gay, L., Mills, G., & Airasian, P. (2011). *Educational research: Competencies for analysis and applications*. Pearson.

Gee, J. (2004). *Situated language and learning: A critique of traditional schooling*. RoutledgeFalmer.

Geertz, C. (1973). *The interpretation of cultures*. Basic Books.

Gentles, S. J., Jack, S. M., Nicholas, D. B., & McKibbon, K. A. (2014). Critical approach to reflexivity in grounded theory. *The Qualitative Report*, *19*(44), 1–14. https://core.ac.uk/download/pdf/51087331.pdf

Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & Education*, *57*, 2333–2351. https://doi.org/10.1016/j.compedu.2011.06.004

Gilakjani, A. P., & Sabouri, N. B. (2017). Teachers' beliefs in English language teaching and learning: A review of the literature. *English Language Teaching*, *10*(4), 78–86. http://doi.org/10.5539/elt.v10n4p78

Gilster, P. (1997). *Digital literacy*. Wiley Computer Publications.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* AldineTransaction.

Goh, C. C. M. (2015). Forward. In Y. L. Cheung, S. B. Said, & K. Park (Eds.), *Advances and current trends in language teacher identity research* (pp. xii–xiv). Routledge.

Gough, B., & Madill, A. (2012). Subjectivity in psychological science: From problem to prospect. *Psychological Methods*, *17*(3), 374–384. https://doi.org/10.1037/a0029313

Government of the State of Palestine. (2016, December). *State of Palestine: 2017–22 National policy agenda.* https://tinyurl.com/52dnww4f

Government of the State of Palestine. (2020, March 26). *State of emergency: Palestine's COVID-19 response plan*. https://tinyurl.com/mw6rc7nd

Grant, C., & Osanloo, A. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your "house". *Administrative Issues Journal*, *4*(2), Article 4. https://dc.swosu.edu/aij/vol4/iss2/4

Green, H. E. (2014). Use of theoretical and conceptual frameworks in qualitative research. *Nurse researcher*, *21*(6), 34–38. https://doi.org/10.7748/nr.21.6.34.e1252

Gregor, S. (2006). The nature of theory in information systems. *MIS Quarterly*, *30*(3), 611–642. https://doi.org/10.2307/25148742

Gresham, J. (2020). *Manufacturing trends in automated inspection equipment: Linking technology with business change management using the technology acceptance model* (Publication No. 27739078) [Doctoral dissertation, Northcentral University]. ProQuest Dissertations and Theses Global.

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. SAGE.

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis.* SAGE.

Gunawardena, C. N. (1995). Social presence theory and implications for interaction and collaborative learning in computer conferences. *International Journal of Educational Telecommunications*, *1*(2/3), 147–166. https://www.learntechlib.org/p/15156/

Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction within a computer mediated conferencing environment. *American Journal of Distance Education*, *11*(3), 8–26. https://www.learntechlib.org/p/86327/

Gyau, Y. O., & Gyan, E. K. (2023). Integrating technology into academic programmes in HEIs: The perspectives of policymakers in Covid era. *International Journal of Social Science and Human Research*, *6*(01), 90–100. https://doi.org/10.47191/ijsshr/v6-i1-13

Haddad, M. (2021, May 18). Mapping Israeli occupation. *AlJazeera*. https://tinyurl.com/yckv8xx9

Hakim, B. (2020). Technology integrated online classrooms and the challenges faced by the EFL teachers in Saudi Arabia during the COVID-19 pandemic. *International Journal of Applied Linguistics and English Literature*, *9*(5), 33–39. https://tinyurl.com/mvxcjnpf

Hall, G. E. (1974, April). *The Concerns-Based Adoption Model: A developmental conceptualization of the adoption process within educational institutions* (ED111791) [Conference paper]. Annual Meeting of the American Educational Research Association, Chicago, Illinois, United States. https://eric.ed.gov/?id=ED111791

Hall, G. E., & George, A. A. (1979). *Stages of concern about the innovation: The concept, initial verification and some implications* (ED187716). University of Texas at Austin. https://eric.ed.gov/?id=ED187716

Hall, G. E., Loucks, S. F., Rutherford, W. L., & Newlove, B. W. (1975). Levels of use of the innovation: A framework for analyzing innovation adoption. *Journal of Teacher Education*, *26*(1), 52–56. https://doi.org/10.1177/002248717502600114

Hamamra, B., Alawi, N., & Daragmeh, A. K. (2021). Covid-19 and the decolonisation of education in Palestinian universities. *Educational Philosophy and Theory*, *52*. https://doi.org/10.1080/00131857.2020.1865921

Hamdan, A. K. (2012). Windows of faith and freedom: A Muslim woman's narrative. *Canadian Journal for New Scholars in Education*, *4*(1). https://tinyurl.com/usu34jx2

Hamdan, A. K. (2013). Pre-service teachers' preferred methods of assessment: A perspective from Saudi Arabia. *Australian Journal of Teacher Education*, *38*(4), 66–90. http://dx.doi.org/10.14221/ajte.2013v38n4.6

Hamdan, A. K. (2014). The reciprocal and correlative relationship between learning culture and online education: A case from Saudi Arabia. *The International Review of Research in Open and Distributed Learning*, *15*(1), 309–336. https://doi.org/10.19173/irrodl.v15i1.1408

Hammersley, M., & Atkinson, P. (2007). *Ethnography: Principles in practice* (3rd ed.). Routledge.

Hamilton, E. R., Rosenberg, J. M., & Akcaoglu, M. (2016). The substitution augmentation modification redefinition (SAMR) model: A critical review and suggestions for its use. *TechTrends*, *60*, 433–441. https://doi.org/10.1007/s11528-016-0091-y

Hammond, M., and Wellington, J. J. (2012). *Research methods: The key concepts*. Routledge.

Hancock, R., Knezek, G., & Christensen, R. (2007). Cross-validating measures of technology integration: A first step toward examining potential relationships between technology integration and student achievement. *Journal of Computing in Teacher Education*, *24*(1), 15–21. https://doi.org/10.1080/10402454.2007.10784579

Hancock, D. R., & Algozzine, B. (2016). *Doing case study research: A practical guide for beginning researchers*. Teachers College Press.

Hannafin, R. D., & Savenye, W. C. (1993). Technology in the classroom: The teacher's new role and resistance to it. *Educational Technology*, *33*(6), 26–31. https://www.jstor.org/stable/44428000

Hanson, J. (2009). Displaced but not replaced: The impact of e-learning on academic identities in higher education. *Teaching in Higher Education*, *14*(5), 553–564. https://doi.org/10.1080/13562510903186774

Harandi, S. R. (2015). Effects of e-learning on students' motivation. *Procedia - Social and Behavioral Sciences, 181*, 423–430. https://doi.org/10.1016/j.sbspro.2015.04.905

Harmes, J. C., Welsh, J. L., & Winkelman, R. J. (2016). A framework for defining and evaluating technology integration in the instruction of real-world skills. In S. Ferrara, Y. Rosen, & M. Tager (Eds.), *Handbook of research on technology tools for real-world skill development* (pp. 137-162). IGI Global. https://doi.org/10.4018/978-1-4666-9441-5.ch006

Hartnett, M. (2016). *Motivation in online education*. Springer.

Hartono, H., Widiyati, E., & Anwar, C. (2023). Group work in Zoom breakout rooms to enhance English-speaking self-efficacy for active learning activities. *Studies in English Language and Education*, *10*(1), 137–154. https://jurnal.usk.ac.id/SiELE/article/view/26021

Hartshorn, K. J., & McMurry, B. L. (2020). The effects of the COVID-19 pandemic on ESL learners and TESOL practitioners in the United States. *International Journal of TESOL Studies*, *2*(2), 140–156. https://doi.org/10.46451/ijts.2020.09.11

Heil, J. & Ifenthaler, D. (2023). Online assessment in higher education: A systematic review. *Online Learning*, *27*(1), 187–218. https://doi.org/10.24059/olj.v27i1.3398

Helsing, D. (2007). Regarding uncertainty in teachers and teaching. *Teaching and Teacher Education*, *23*(8), 1317–1333. https://doi.org/10.1016/j.tate.2006.06.007

Herrity, J. (2023, July 5). What are soft skills? (definition, examples and resume tips). *indeed Career Guide*. https://www.indeed.com/career-advice/resumes-cover-letters/soft-skills

Hershkovitz, A., Daniel, E., Klein, Y., & Shacham, M. (2023). Technology integration in emergency remote teaching: teachers' self-efficacy and sense of success. *Education and Information Technologies*, *28*(10), 12433–12464. https://doi.org/10.1007/s10639-023-11688-7

Hijjawi, T. (2013). Towards the autonomisation of university student: Evaluation of Palestinian university students' perception and practice of ICT in foreign languages' learning. *The Online Journal of Distance Education and E-learning*, *1*(2), 37–44. https://tinyurl.com/3hryxsrw

Hinostroza, J. E. (2018). New challenges for ICT in education policies in developing countries: The need to account for the widespread use of ICT for teaching and learning outside the school. In I. A. Lubin (Ed.) *ICT-supported innovations in small countries and developing regions* (pp. 99–119). Springer. https://doi.org/10.1007/978-3-319-67657-9_5

Hoang, N. H. (2024). Developing and validating a questionnaire on EFL teachers' actual integration of ICT into their classes at Vietnamese higher education. *Language Teaching Research*, *42*, 1–20. https://doi.org/10.32038/ltrq.2024.42.01

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). The difference between emergency remote teaching and online learning. *Educause Review*. https://tinyurl.com/35h22yhy

Hoidn, S., & Reusser, K. (2020). Foundations of student-centered learning and teaching. In S. Hoidn & M. Klemenčič (Eds.), *The Routledge international handbook of student-centered learning and teaching in higher education* (pp. 17–46). Routledge.

Holden, R. J., & Karsh, B. T. (2010). The technology acceptance model: its past and its future in health care. *Journal of Biomedical Informatics*, *43*(1), 159–172. https://doi.org/10.1016/j.jbi.2009.07.002

Holmberg, B. (1986). *Growth and structure of distance education*. Croom Helm.

Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*. Addison-Wesley.

Holstein, J. A., & Gubrium, J. F. (2003). Active interviewing. In J. F. Gubrium, & J. A. Holstein, (Eds.), *Postmodern interviewing* (pp. 67–80). SAGE.

Hong, X., Zhang, M., & Liu, Q. (2021). Preschool teachers' technology acceptance during the COVID-19: An adapted technology acceptance model. *Frontiers in Psychology*, *12*, Article 691492. | https://doi.org/10.3389/fpsyg.2021.691492

Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching*, *43*(2), 154–167. https://doi.org/10.1017/S026144480999036X

Hotho, A., Nürnberger, A., & Paaß, G. (2005). A brief survey of text mining. *Journal for Language Technology and Computational Linguistics*, *20*(1), 19–62. https://jlcl.org/article/view/68/66

Huang, F., Zhao, M., Qi, J., & Zhang, R. (2023). English teachers' perceptions of emergency remote teaching: Emotional attitudes, professional identity, and coping strategies. *Frontiers in Psychology*, *13*, Article1064963. https://doi.org/10.3389/fpsyg.2022.1064963

Huber, S. G., & Helm, C. (2020). COVID-19 and schooling: Evaluation, assessment and accountability in times of crises—reacting quickly to explore key issues for policy, practice and research with the school barometer. *Educational Assessment, Evaluation and Accountability*, *32*(2), 237–270. https://doi.org/10.1007/s11092-020-09322-y

Hussin, A. A. (2018). Education 4.0 made simple: Ideas for teaching. *International Journal of Education & Literacy Studies*, *6*(3), 92–98. https://doi.org/10.7575/aiac.ijels.v.6n.3p.92

Ibrahim, A., & Barnawi, O. Z. (2022). *The past, present, and future of higher education in the Arabian Gulf region: Critical comparative perspectives in a neoliberal era*. Taylor & Francis.

Igbaria, M., & Iivari, J. (1995). The effects of self-efficacy on computer usage. *Omega*, *23*(6), 587–605. https://doi.org/10.1016/0305-0483(95)00035-6

Inaba, M., & Kakai, H. (2019). Grounded text mining approach. In A. Bryant, & K. Charmaz (Eds.), *The SAGE handbook of grounded theory* (pp. 332–351). SAGE.

International Telecommunication Union. (2022). *Global connectivity report 2022*. https://tinyurl.com/28eazbhv

International Telecommunication Union. (2023). *Measuring digital development: Facts and figures 2023*. https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx

International Test Commission and Association of Test Publishers. (2022). *Guidelines for technology-based assessment*. https://tinyurl.com/8nsbm7n8

Ishak, N. M., & Abu Bakar, A. Y. (2014). Developing sampling frame for case study: Challenges and conditions. *World Journal of Education*, *4*(3), 29–35. https://eric.ed.gov/?id=EJ1158705

Jackson, C., Vynnycky, E., & Mangtani, P. (2016). The relationship between school holidays and transmission of influenza in England and Wales. *American Journal of* Epidemiology, *184*. 644–51.

Jacobson, M. J., So, H. J., Teo, T., Lee, J., Pathak, S., & Lossman, H. (2010). Epistemology and learning: Impact on pedagogical practices and technology use in Singapore schools. *Computers and Education*, *55*(4), 1694–1706. https://doi.org/10.1016/j.compedu.2010.07.01

Jawabreh, A. (2020, March 12). Palestine's universities scramble to move to online learning during coronavirus shutdown. *Al Fanar Media.* https://tinyurl.com/27frrews

Johnson, A. M., Jacovina, M. E., Russell, D. G. & Soto, C. M. (2017). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. Mcnamara (Eds.), *Adaptive Educational Technologies for Literacy Instruction*, 13–29. Routledge.

Judd, J., Rember, B. A., Pellegrini, T., Ludlow, B., & Meisner, J. (2020, July 9). *"This is not teaching": The effects of COVID-19 on teachers*. Social Publishers Foundation. https://tinyurl.com/y7kvrr6u

Junaidi, Y., Hashim, H., & Ismail, H. H. (2022). ESL teacher's perception and attitudes towards the adoption of emergency remote teaching in time of crisis. *Journal of Nusantara Studies* (JONUS), *7*(2), 221–244. https://doi.org/10.24200/jonus.vol7iss2pp221-244

Kabilan, M., & Rajab, B. (2010). The utilisation of the internet by Palestinian English language teachers focusing on uses, practices and barriers and overall contribution to professional development. *International Journal of Education and Development using ICT*, *6*(3), 56–72. https://www.learntechlib.org/p/42379/

Kagan, D. M. (1990). Ways of evaluating teacher cognition: Inferences concerning the Goldilocks principle. *Review of Educational Research*, *60*(3), 419–69. https://doi.org/10.3102/0034654306000341

Kakoullis, L., Eliades, E., Papachristodoulou, E., Parperis, K., Chra, P., Constantinidou, A., Chatzittofis, A., Sampsonas, F., & Panos, G. (2021). Response to COVID-19 in Cyprus: Policy changes and epidemic trends. *International Journal of Clinical Practice*, *75*(4), e13944. https://doi.org/10.1111/ijcp.13944

Kandasamy, M., & Shah, P. (2013). Knowledge, attitude and use of ICT among ESL teachers. *The Proceedings of the Global Summit on Education*, 185–199. https://tinyurl.com/4eczdwnp

Kang, M., & Jeong, S. R. (2018). Text mining and sentiment analysis for predicting box office success. *KSII Transactions on Internet and Information Systems (TIIS)*, *12*(8), 4090–4102. https://doi.org/10.3837/tiis.2018.08.030

Kapasia, N., Paul, P., Roy, A., Saha, J., Zaveri, A., Mallick, R., & Chouhan, P. (2020). Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal. India. *Children and Youth Services Review*, *116*, Article 105194. https://doi.org/10.1016/j.childyouth.2020.105194

Karataş, T. Ö., & Tuncer, H. (2020). Sustaining language skills development of pre-service EFL teachers despite the COVID-19 interruption: A case of emergency distance education. *Sustainability*, *12*(19), Article 8188. https://doi.org/10.3390/su12198188

Karpati, A. (2011, May). *Digital literacy in education* [Policy brief]. UNESCO Institute for Information Technologies in Education. https://tinyurl.com/k42zknvk

Kaqinari, T., Makarova, E., Audran, J., Döring, A. K., Göbel, K., & Kern, D. (2022). A latent class analysis of university lecturers' switch to online teaching during the first COVID-19 lockdown: The role of educational technology, self-efficacy, and institutional support. *Education Sciences*, *12*(9), Article 607. https://doi.org/10.3390/educsci12090607

Karsh, S. A. (2021). E-Learning: Boon or bane to higher dducation during COVID-19 at MENA region. *International Journal of Management Research and Social Science*, *8*(2), 91–95. https://doi.org/10.30726/ijmrss/v8.i2.2021.82012

Kayed, R. N. (2013). Integrating e-learning into higher education. *Palestinian Journal of Open Education*, *4*(7) Article 6. https://tinyurl.com/24ctd6t2

Kearns, L. R. (2012). Student assessment in online learning: Challenges and effective practices. *Journal of Online Learning and Teaching*, *8*(3), 198–208. https://jolt.merlot.org/vol8no3/kearns_0912.pdf

Kebritchi, M., Lipschuetz, A., & Santiague, L. (2017). Issues and challenges for teaching successful online courses in higher education. *Journal of Educational Technology Systems*, *46*(1), 4–29. https://doi. org/10. 1177/00472 39516 661713

Keiler, L. S. (2018). Teachers' roles and identities in student-centered classrooms. *International Journal of STEM Education*, *5*, Article 34. https://doi.org/10.1186/s40594-018-0131-6

Kemp, S. (2022, January 26). *Digital 2022: Local country headlines report*. Datareportal. https://datareportal.com/reports/digital-2022-local-country-headlines

Kemp, S. (2023, January 26). *Digital 2023: Global overview report*. Datareportal. https://datareportal.com/reports/digital-2023-global-overview-report

Kemp, S. (2024a, January 31). *Digital 2024: Global overview report*. Datareportal. https://datareportal.com/reports/digital-2024-global-overview-report

Kemp, S. (2024b, April 24). *Digital 2024 April global statshot report*. Datareportal. https://datareportal.com/reports/digital-2024-april-global-statshot

Kennedy, C. (1987). Innovation for a change: Teacher development and innovation. *ELT Journal*, *41*(3), 163–170. https://tinyurl.com/2s3dze5j

Khan, M. Z., Miankhel, A. K., & Nawaz, A. (2013). Information & communication technology and 'individual': Prospects & concerns. *Global Journal of Computer Science and Technology Network, Web & Security*, *13*(7), 1–9. https://tinyurl.com/3jujv348

Khlaif, Z. N. (2018). Factors influencing teachers' attitudes toward mobile technology integration in K-12. *Technology, Knowledge and Learning*, *23*(1), 161–175. https://doi.org/10.1007/s10758-017-9311-6

Kiely, R. (2001). Classroom evaluation-values, interests and teacher development. *Language Teaching Research*, *5*(3), 241–261. https://doi.org/10.1177/136216880100500304

Kiely, R. (2011, December 4). Teacher development: Recognising skill as a basis for ongoing change. *Arab World English Journal*, *2*(4), 5–36. https://awej.org/teacher-development-recognising-skill-as-a-basis-for-ongoing-change/

Kim, B., & Park, M. J. (2018). Effect of personal factors to use ICTs on e-learning adoption: Comparison between learner and instructor in developing countries. *Information Technology for Development*, *24*(4), 706–732. https://doi.org/10.1080/02681102.2017.1312244

Kim, K. J., & Frick, T. W. (2011). Changes in student motivation during online learning. *Journal of Educational Computing Research*, *44*(1), 1–23. https://doi.org/10.2190/EC.44.1.a

King, N., Horrocks, C., & Brooks, J. (2018). *Interviews in qualitative research* (2nd ed.). SAGE.

Kirk, J. (2009). Word frequency: Use or misuse? In D. Archer (Ed.), *What's in a word-list?: Investigating word frequency and keyword extraction* (pp. 17–34). Ashgate Publishing, Ltd.

Knobel, M., & Lankshear, C. (2015). Digital media and literacy development. In A. Georgakopoulou & T. Spilioti (Eds.), *The Routledge handbook of language and digital communication* (pp. 151-165). Routledge.

Knorr Cetina, K. (1997). Sociality with objects: Social relations in postsocial knowledge societies. *Theory, Culture & Society*, *14*(4), 1–30. https://doi.org/10.1177/0263276970140040

Knorr Cetina, K. (2001). Objectual practice. In T. Schatzki, K. Knorr Cetina, & E. Von Savigny (Eds) *The practice turn in contemporary theory* (pp. 184–197). Routledge.

Knowles, E., & Kerkman, D. (2007). An investigation of students' attitude and motivation toward online learning. *InSight: A Collection of Faculty Scholarship*, *2*, 70–80. https://eric.ed.gov/?id=EJ864281

Ko, S., & Rossen, S. (2017). *Teaching online: A practical guide* (4th ed.). Taylor & Francis.

Koehler, M. (2011, May 11). *Using the TPACK Image*. TPACK ORG. http://tpack.org/

Koehler, M. J., & Mishra, P. (2005). What happens when teachers design educational technology? The development of technological pedagogical content knowledge. *Journal of Educational Computing Research*, *32*(2), 131–152. https://doi.org/ds9qgs

Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, *9*(1), 60–70. https://tinyurl.com/yc6vhjpn

Koehler, M. J., Mishra, P., & Cain, W. (2013). What is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education*, *193*(3), 13–19. https://doi.org/10.1177/002205741319300303

Koehler, M. J., Mishra, P., Kereluik, K., Shin, T. S., & Graham, C. R. (2014). The technological pedagogical content knowledge framework. In J.M. Spector, M.D. Merrill, J. Elen, & M.J. Bishop, *Handbook of research on educational communications and technology* (4th ed., pp. 101–111). Springer.

Koehler, M. J., Mishra, P., Yahya, K., & Yadav, A. (2004). Successful teaching with technology: The complex interplay of content, pedagogy, and technology. *Proceedings from the Annual Meeting of the Society for Information Technology & Teacher Education,* 2347–2354. https://tinyurl.com/2p98ajvn

Koopman, W. J., Watling, C. J., & LaDonna, K. A. (2020). Autoethnography as a strategy for engaging in reflexivity. *Global Qualitative Nursing Research*, *7*, 1–9. https://doi.org/10.1177/2333393620970508

Kovach, M. (2018). Doing indigenous methodologies: A letter to a research class. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 383–417). SAGE.

Krainovich-Miller, B. (2018). Gathering and appraising the literature. In G. LoBiondo-Wood & J. Haber (Eds.), *Nursing research: methods and critical appraisal for evidence-based practice* (9th ed., pp. 45–65). Elsevier.

Krajka, J. (2021). Teaching grammar and vocabulary in COVID-19 times: Approaches used in online teaching in Polish schools during a pandemic. *JALT CALL Journal*, *17*(2), 112–134. https://doi.org/10.29140/jaltcall.v17n2.379

Kreitem, H. M. (2020). Weaponization of acess, communication inequalities as a form of control: Case of Israel/Palestine. In M. Ragnedda & A. Gladkova (Eds.), *Digital*

inequalities in the global south (pp. 137–157). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-32706-4_7

Kruk, M., & Pawlak, M. (2023, June 30). Call for papers for a special issue on emotional CALL. *Language Learning and Technology* (in preparation). https://www.lltjournal.org/post/17/

Kubovich, Y. (2021, December 7). *Israel completes vast, billion-dollar Gaza barrier*. Haaretz. https://tinyurl.com/4r3c5x7u

Kuckartz. U. (2019). Qualitative text analysis: A systematic approach. In G. Kaiser & N. Presmeg (Eds.), *Compendium for early career researchers in mathematics education* (pp. 181–197). doi: 10.1007/978-3-030-15636-7_8

Kukulska-Hulme, A. (2013). *Re-skilling language learners for a mobile world*. The International Research Foundation for English Language Education (TIRF), Monterey, USA. https://oro.open.ac.uk/39034/

Kvale, S., and Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing* (2nd ed.). SAGE.

Kyei-Blankson, L., & Keengwe, J. (2011). Faculty-faculty interactions in online learning environments. *International Journal of Information and Communication Technology Education*, *7*(3), 25–33. https://www.learntechlib.org/p/187027/

Lamie, J. M. (2005). *Evaluating change in English language teaching*. Palgrave.

Lamy, M. N. (2013). Distance CALL online. In M. Thomas, H. Reinders, & M. Warschauer (Eds.), *Contemporary computer-assisted language learning* (pp. 141–158). Bloomsbury.

Landry, J. (2022). Language instructors' digital competences in the context of emergency remote teaching: A professional didactics perspective [Master's thesis, University of Ottawa]. uO Research. http://dx.doi.org/10.20381/ruor-28480

Lanham, R. (1995, September), Digital literacy. *Scientific American*, *273*(3), 160–161. https://www.scientificamerican.com/magazine/sa/1995/09-01/

Lankshear, C., & Knobel, M. (2006, May 30). Digital literacy and digital literacies: Policy, pedagogy and research considerations for education. *Nordic Journal of Digital Literacy*, *1*(1), 12–24. https://doi.org/10.18261/ISSN1891-943X-2006-01-03

Lankshear, C., Snyder, I. A., & Green, B. (2000). *Teachers and techno-literacy: Managing literacy, technology and learning in schools*. Allen & Unwin.

Lasky, S. (2005). A sociocultural approach to understanding teacher identity, agency and professional vulnerability in a context of secondary school reform. *Teaching and Teacher Education*, *21*(8), 899–916. https://doi.org/10.1016/j.tate.2005.06.003

Lassoued, Z., Alhendawi, M., & Bashitialshaaer, R. (2020). An exploratory study of the obstacles for achieving quality in distance learning during the COVID-19 pandemic. *Education Sciences*, *10*(9), Article 232. https://doi.org/10.3390/educsci10090232

Lee, A. R. (2021). Breaking through digital barriers: Exploring EFL students' views of Zoom breakout room experiences. *Korean Journal of English Language and Linguistics*, *21*, 510–524. http://journal.kasell.or.kr/xml/29542/29542.pdf

Lee, S. S. (2021). A precarious balancing act: Globalization, political legitimacy, and higher education expansion in Qatar and the UAE. *Contemporary Arab Affairs*, *14*(1), 113–133. https://doi.org/10.1525/caa.2021.14.1.113

Leech, N. L., & Onwuegbuzie, A. J. (2011). Beyond constant comparison qualitative data analysis: Using NVivo. *School Psychology Quarterly*, *26*(1), 70–84. https://doi.org/10.1037/a0022711

Lemay, D. J., Bazelais, P., & Doleck, T. (2021). Transition to online learning during the COVID-19 pandemic. *Computers in Human Behavior Reports*, *4*, Article 100130. https://doi.org/10.1016/j.chbr.2021.100130

Lemon, N., & Garvis, S. (2015). Pre-service teacher self-efficacy in digital technology. *Teachers and Teaching*, *22*(3), 387–408. https://doi.org/10.1080/13540602.2015.1058594

LeVasseur, J. J. (2003). The problem of bracketing in phenomenology. *Qualitative Health Research*, *13*(3), 408–420. https://doi.org/10.1177/104973230225033

Levy, M. (2013). Forward. In M. Thomas, H. Reinders, & M. Warschauer (Eds.), *Contemporary computer-assisted language learning* (pp. xvii–xix). Bloomsbury.

Levy, M., & Stockwell, G. (2006). *CALL dimensions: Options and issues in computer-assisted language learning.* Lawrence Erlbaum Associates.

Li, C., & Irby, B. (2008). An overview of online education: Attractiveness, benefits, challenges, concerns, and recommendations. *College Student Journal*, *42*(2), 449–458. https://www.learntechlib.org/p/103183/

Lillebo, M. S., & Solum-Sjaavaag, J. A. (2021). *Learning from COVID-19 emergency remote teaching: A case study to compare pupil and teacher experiences* (Master's thesis, Norwegian University of Science and Technology). NTNU Open. https://hdl.handle.net/11250/2786114

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry* (Vol. 75). SAGE.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 212–263). SAGE.

Littlewood, W. (2011). Communicative language teaching: An expanding concept for a changing world. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (Vol. II, pp. 541–557). Routledge.

Looi, C. K. (2001). Enhancing learning ecology on the Internet. *Journal of Computer Assisted Learning*, *17*(1), 13–20. https://doi.org/10.1111/j.1365-2729.2001.00155.x

LSU Libraries. (2023, January 11). *Systematic reviews: Steps in a systematic review*. Louisiana State University. https://guides.lib.lsu.edu/Systematic_Reviews

Lumsden, L. S. (1994). *Student motivation to learn. ERIC Digest, number 92* (ED370200). ERIC. https://files.eric.ed.gov/fulltext/ED370200.pdf

Lund, A., & Aagaard, T. (2020). Digitalization of teacher education: Are we prepared for epistemic change? *Nordic Journal of Comparative and International Education* (NJCIE), *4*(3–4), 56–71. https://doi.org/10.7577/njcie.3751

Ma, Y., & Luo, M. (2024). Older people's intention to use medical apps during the COVID-19 pandemic in China: An application of the Unified Theory of Acceptance and Use of Technology (UTAUT) model and the Technology of Acceptance Model (TAM). *Ageing & Society*, *44*(7), 1515–1532. https://doi.org/10.1017/S0144686X22000423

Mac Allister, K., & Gassner Jaradat, I. (2006). *Displaced by the Wall: Pilot study on forced displacement caused by the construction of the West Bank Wall and its associated regime in the Occupied Palestinian Territories*. Badil Resource Center for Palestinian Residency and Refugee Rights. https://tinyurl.com/yckp3az4

Mann, C., & Stewart, F. (2000). *Internet communication and qualitative research: A handbook for researching online*. SAGE.

Mann, S. (2016). *The research interview: Reflective practice and reflexivity in research processes.* Palgrave Macmillan.

Mantzoukas, S. (2005).The inclusion of bias in reflective and reflexive research: A necessary prerequisite for securing validity. *Journal of Research in Nursing*, *10*(3), 279–295. https://doi.org/10.1177/174498710501000305

Marinoni, G., Van't Land, H., & Jensen, T. (2020). *The impact of Covid-19 on higher education around the world: IAU Global Survey Report*. International Association of Universities. https://tinyurl.com/ytyztnph

Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, *13*(6), 522–526. https://doi.org/10.1093/fampra/13.6.522

Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. SAGE.

Mashiyi, N. (2023, February). Student-centred and transformative online pedagogies employed by lecturers during the COVID-19 pandemic at a South African higher education institution. In *Proceedings of the Focus Conference* (TFC 2022) (pp. 120–133). Atlantis Press. https://doi.org/ 10.2991/978-2-38476-006-0_11

Martin, F., & Dunsworth, Q. (2007). A methical formative evaluation of computer literacy course: What and how to teach. *Journal of Information Technology Education*, *6*(1), 123–134. https://doi.org/10.28945/205

Matarirano, O., Yeboah, A., & Gqokonqana, O. (2021). Readiness of students for multi-modal emergency remote teaching at a selected South African higher education institution. *International Journal of Higher Education*, *10*(6), 135–152. https://eric.ed.gov/?id=EJ1334322

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE.

McDaniels, M., Pfund, C., & Barnicle, K. (2016). Creating dynamic learning communities in synchronous online courses: One approach from the Center for the Integration of Research, Teaching and Learning (CIRTL). *Online Learning*, *20*(1), 110–129. https://files.eric.ed.gov/fulltext/EJ1096380.pdf

McGrath, L., & Wolstencroft, P. (2021). *I want to break free: How online breakout rooms have become a modern educational curse.* Chartered Association of Business Schools. https://researchonline.ljmu.ac.uk/id/eprint/14265

McQuiggan, C. A. (2012). Faculty development for online teaching as a catalyst for change. *Journal of Asynchronous Learning Networks*, *16*(2), 27–61. https://doi.org/10.24059/olj.v16i2.258

Meihami, H. (2021). A narrative inquiry into Iranian EFL teacher educator's voice about challenges of CALL teacher education. *Teaching English with Technology*, *21*(2), 92–111. https://files.eric.ed.gov/fulltext/EJ1293554.pdf

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation* (3rd ed.) Josey-Bass.

Meşe, E. & Sevilen, Ç. (2021). Factors influencing EFL students' motivation in online learning: A qualitative case study. *Journal of Educational Technology and Online Learning*, *4*(1), 11–22. https://dergipark.org.tr/en/download/article-file/1368502

Meyer, K. A. (2012). The influence of online teaching on faculty productivity. *Innovative Higher Education*, *37*(1), 37–52. https://doi.org/10.1007/s10755-011-9183-y

Mikki, M., & Jondi, N. (2010). eLearning in Palestine. In U. Demiray (Ed.), *Cases on challenges facing e-learning and national development: Institutional studies and practices* (Vol 2, pp. 627–652). Anadolu University.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded source book* (2nd ed.). SAGE.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE.

Miller , J. (2009). Teacher identity. In A. Burns and J. Richards (Eds.), *The Cambridge Guide to Second Language Teacher Education* (pp. 172–181). Cambridge University Press. https://doi.org/10.1017/9781139042710.023

Milman, N. (2020, March 30). This is emergency remote teaching, not just online teaching: There's a difference. *Education Week*. https://tinyurl.com/mr23ue5j

Miner, G., Nisbet, B., Elder, J., Hill, T., Fast, A., & Delen, D. (2012). *Practical text mining and statistical analysis for non-structured text data application* (1st ed.). Academic Press.

Ministry of Education and Higher Education. (2008). *Education development strategic plan 2008-2012: Towards quality education for development.* https://tinyurl.com/3et7s3pe

Ministry of Education and Higher Education. (2017, April). *Education sector strategic plan 2018-2022: An elaboration of the education development strategic plan III (2014–2019).* https://tinyurl.com/3262r43s

Ministry of Education. (2020). *Education sector strategic plan "updated strategy".* Retrieved December 5, 2024 from: https://tinyurl.com/mvwt2apk

Mishler, E. G. (1986). The analysis of interview-narratives. In T. R. Sarbin (Ed.), *Narrative psychology: The storied nature of human conduct* (pp. 233–255). Praeger.

Mishra, P., & Koehler, M. J. (2003). Not "what" but "how": Becoming design-wise about educational technology. In Y. Zhao (Ed.), *What teachers should know about technology: Perspectives and practices* (pp. 99–122). Information Age Publishing.

Mishra, P. & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for integrating technology in teacher knowledge. *Teachers College Record*, *108*(6), 1017–1054. https://tinyurl.com/5n73knyh

Mishra, P., & Koehler, M. J. (2008, March 24–28*). Introducing technological pedagogical content knowledge* [Paper presentation]. Annual Meeting of the American Educational Research Association, New York City, New York, United States. https://www.matt-koehler.com/publications/Mishra_Koehler_AERA_2008.pdf

Moghli, M.A., & Shuayb, M. (2020). *Education under Covid-19 lockdown: Reflections from teachers, students & parents.* Center for Lebanese Studies. https://tinyurl.com/dt56usxs

Moore, M. G. (1989). Editorial: Three types of interaction. *American Journal of Distance Education*, *3*(2), 1–7. https://doi.org/10.1080/08923648909526659

Moore, M. G. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical principles of distance education* (pp. 20–35) [Taylor & Francis e-library edition]. Routledge.

Moore, S. L. & Hodges, C.B. (2023). Emergency remote teaching. *EdTechnica: The Open Encyclopedia of Educational Technology*. https://dx.doi.org/10.59668/371.11681

Moore, S., Trust, T., Lockee, B. B., Bond, M. A., & Hodges, C. (2021, November 10). One year later... and counting: Reflections on emergency remote teaching and online learning. *Educause Review*. https://tinyurl.com/uvkhasz2

Morse, J. (2018). Reframing rigor in qualitative inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 1373–1409). SAGE.

Mouw, J. M., Fokkens-Bruinsma, M., Kupers, E., & Korpershoek, H. (2023). Technology-supported teaching in times of COVID-19's first period of emergency remote teaching: an exploratory analysis of influencing factors. *Educational Psychology*, *43*(5), 561–581. https://doi.org/10.1080/01443410.2023.2208789

Muasher, M. (2014). *The second Arab awakening: And the battle for pluralism*. Yale University Press.

Muhammad, G., Albejaidi, F. M., & Akhtar, R. (2017). Challenges in development of eLearning systems in higher education of the developing countries. *London Journal of Research in Humanities and Social Sciences*, *17*(2), 13–32. https://tinyurl.com/77jd8x34

Muhammad, A., Shaikh, A., Naveed, Q. N., & Qureshi, M. R. N. (2020). Factors affecting academic integrity in E-learning of Saudi Arabian Universities: An investigation using Delphi and AHP. *IEEE Access*, *8*, 16259–16268. https://doi.org/10.1109/access.2020.2967499

Mullen, C. A., Samier, E. A., Brindley, S., English, F. W., & Carr, N. K. (2013). An epistemic frame analysis of neoliberal culture and politics in the US, UK, and the UAE. *Interchange*, *43*(3), 187–228. https://doi.org/10.1007/s10780-013-9176-0

Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: A review of the literature. *Journal of Information Technology for Teacher Education*, *9*(3), 319–342. https://doi.org/10.1080/14759390000200096

Naidu, T., & Sliep, Y. (2011). Contextual reflexivity: Towards contextually relevant research with South African HIV/AIDS home-based care volunteers. *International Journal of Qualitative Methods*, *10*(4), 431–443. https://doi.org/10.1177/160940691101000409

Nambiar, D. (2020). The impact of online learning during COVID-19: Students' and teachers' perspective. *The International Journal of Indian Psychology*, *8*(2), 783–793. https://doi.org/10.25215/0802.094

Nash, B. (2022). "We felt like pioneers": Exploring the social and emotional dimensions of teachers' learning during online professional development. *Journal of Online Learning Research*, *8*(1), 101–125. https://www.learntechlib.org/primary/p/220426/

Naveed, Q. N., Qahmash, A. I., Al-Razgan, M., Qureshi, K. M., Qureshi, M. R. N. M., & Alwan, A. A. (2022). Evaluating and prioritizing barriers for sustainable e-learning using analytic hierarchy process-group decision making. *Sustainability*, *14*(15), Article 8973. https://doi.org/10.3390/su14158973

Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology*, *15*, 263–280. https://doi.org/10.1002/ejsp.2420150303

Niederhauser, D. S., & Lindstrom, D. L. (2018). Instructional technology integration models and frameworks: Diffusion, competencies, attitudes, and dispositions. In J. Voogt, G. Knezek, R. Christensen, & K-W. Lai (Eds.), *Second handbook of information technology in primary and secondary education* (pp. 335–355). Springer Cham.

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education*, *59*(3), 1065–1078. https://doi.org/10.1016/j.compedu.2012.04.016

Ní Shé, C., Farrell, O., Brunton, J., Costello, E., Donlon, E., Trevaskis, S., & Eccles, S. (2019). *Teaching online is different: Critical perspectives from the literature* [Project report]. Dublin City University. https://doi.org/10.5281/zenodo.3479402

Oates, W. R. (1985). Educators' role changed by media and data bases. *The Journalism Educator*, *40*(3), 42–44. https://doi.org/10.1177/107769588504000311

Obaid, T., Abdaljawad, R., & Abumandil, M. (2020). *Higher education under quarantine: What insights Palestinian institutes can share*? SSRN. http://dx.doi.org/10.2139/ssrn.3665685

Olcott Jr., D. & Wright, S. (1995). An institutional support framework for increasing faculty participation in postsecondary distance education. *American Journal of Distance Education*, *9*(3), 5–17. https://doi.org/10.1080/08923649509526894

Olmos-Vega, F. M., Stalmeijer, R. E., Varpio, L., & Kahlke, R. (2023). A practical guide to reflexivity in qualitative research: AMEE Guide No. 149. *Medical teacher*, *45*(3), 241–251. https://doi.org/10.1080/0142159X.2022.2057287

O' Quinn, L., & Corry, M. (2002). Factors that deter faculty from participation in distance education. *Online Journal of Distance Learning Administration*, *5*(4), 1–16. http://www.westga.edu/%7Edistance/ojdla/winter54/Quinn54.htm

Oraif, I., & Elyas, T. (2021). Applicability of collaborative work in the COVID-19 era: Use of breakout groups in teaching L2 translation. *Electronics*, *10*(22), Article 2846. https://doi.org/10.3390/electronics10222846

Organization for Economic Co-operation and Development. (2001). Understanding the digital divide. *OECD Digital Economy Papers* (No. 49). OECD Publishing. https://doi.org/10.1787/236405667766.

O'Siochru, C., & Norton, L. (2014). Epistemic match: A pedagogical concept for understanding how students fit into the chosen subject. *Innovations in Education and Teaching International*, *51*(2), 195–206. https://doi.org/10.1080/14703297.2013.774138

Otting, H. (2009). *Knowledge, learning, and teaching: Studies on the application of constructivist principles in higher education*. [Doctoral Thesis, Maastricht University]. Maastricht University. https://doi.org/10.26481/dis.20091208ho

Ovetz, R. (2017). Click to save and return to course: Online education, adjunctification, and the disciplining of academic labour. *Work Organisation, Labour and Globalisation*, *11*(1), 48–70. https://doi.org/10.13169/workorgalaboglob.11.1.0048

Palestinian Authority. (2024, October 22). In *Wikipedia*. Retrieved November 30, 2024 from https://en.wikipedia.org/wiki/Palestinian_Authority

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y

Palys, T. (2008). Purposive sampling. In L. M. Given (Ed.) *SAGE Encyclopedia of qualitative research methods* (pp. 697–698). SAGE.

Parasuraman, A. (2000). Technology Readiness Index (Tri): A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, *2*(4), 307–320. https://doi.org/10.1177/109467050024001

Parasuraman, A., & Colby, C. L. (2015). An updated and streamlined Technology Readiness Index: TRI 2.0. *Journal of Service Research*, *18*(1), 59–74. https://doi.org/10.1177/1094670514539730

Paris, S. G., & Turner, J. C. (1994). Situated motivation. In P. R. Pintrich, D. R. Brown & C. E. Weinstein (Eds.), *Student motivation, cognition, and learning: Essays in honor of Wilbert J. McKeachie* (pp. 213–237). Lawrence Erlbaum.

Parson, S. A., Vaughn, M., Malloy, J. A., & Pierczynski, M. (2017). The development of teachers' visions from preservice into their first years teaching: A longitudinal study. *Teaching and Teacher Education*, *64*, 12–25. https://doi.org/10.1016/j.tate. 2017.01.018

Patton, M. Q. (2015). *Qualitative research and evaluation methods: Integrating theory and practice* (4th ed.). SAGE.

Pawlak, M. (2012). The dynamic nature of motivation in language learning: A classroom perspective. *Studies in Second Language Learning and Teaching*, *2*(2), 249–278. https://www.ceeol.com/search/article-detail?id=72837

Pellegrino, J. W., Chudowsky, N., & Glaser, R. (Eds.). (2001). *Knowing what students know: The science and design of educational assessment*. National Academy Press.

Pennebaker, J. W., & Chung, C. K. (2014). Counting little words in big data: The psychology of individuals, communities, culture, and history. In J. P. Forgas, O. Vincze, & J. László (Eds.), *Social cognition and communication* (pp. 25–42). Psychology Press.

Peters, O. (1967). Distance education and industrial production: A comparative interpretation in outline. In D. Keegan (Ed.), *Otto Peters on distance education: The industrialization of teaching and learning* (pp. 107–127). Routledge.

Peters, O. (1989). The iceberg has not melted: Further reflections on the concept of industrialisation and distance teaching. *Open Learning*, *4*(3), 3–8. https://doi.org/10.1080/0268051890040302

Petrova, M., Sutcliffe, P., Fulford, K. W. M., & Dale, J. (2012). Search terms and a validated brief search filter to retrieve publications on health-related values in Medline: A word frequency analysis study. *Journal of the American Medical Informatics Association*, *19*(3), 479–488. https://doi.org/10.1136/amiajnl-2011-000243

Philip, B., Tan, K. H., & Jandar, W. (2019). Exploring teacher cognition in Malaysian ESL classrooms. *3L: Language, Linguistics, Literature: The Southeast Asian Journal of English Language Studies*, *25*(4), 156–178. http://doi.org/10.17576/3L-2019-2504-10

Piaget, J. (1936, 1977). *The origin of intelligence in a child*. Penguin. (Original work published 1936)

Pillow, W. S. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International Journal of Qualitative Studies in Education*, *16*(2), 175–196. https://doi.org/10.1080/0951839032000060635

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, *9*(5), 1–6. https://tinyurl.com/35z9nkkf

Prensky, M. (2009). H. sapiens digital: From digital immigrants and digital natives to digital wisdom. *Innovate: Journal of Online Education*, *5*(3). https://www.learntechlib.org/p/104264/

Prensky, M. (2011). Digital wisdom and homo sapiens digital. In M. Thomas (Ed.), *Deconstructing digital natives: Young people, technology, and the new literacies* (pp. 15–29). Taylor & Francis.

Prensky, M. (2018, April 17). Do we really need dedicated EdTech? *EdTech Digest*. https://tinyurl.com/5n7t786k

Prensky, M. (2020, March 19). *Our new frontier demands uniqueness*. Thrive Global. https://community.thriveglobal.com/our-new-frontier-demands-uniqueness

Probst, B., & Berenson, L. (2014). The double arrow: How qualitative social work researchers use reflexivity. *Qualitative Social Work*, *13*(6), 813–827. https://doi.org/10.1177/1473325013506248

Puentedura, R.R. (2006, August 18). *Transformation, technology, and education* [PowerPoint slides]. http://hippasus.com/resources/tte/puentedura_tte.pdf

Puentedura, R. R. (2012). *SAMR: Getting to transformation* [PowerPoint slides]. https://tinyurl.com/4vr3ssz8

Qashou, A. (2022). Obstacles to effective use of e-learning in higher education from the viewpoint of faculty members. *Turkish Online Journal of Distance Education*, *23*(1), 144–177. https://dergipark.org.tr/en/pub/tojde/issue/67387/1048493

Radcliffe, D., & Abuhmaid, H. (2020). *Social media in the Middle East: 2019 in review*. University of Oregon School of Journalism and Communication. https://tinyurl.com/yp2huuv8

Raffaella, B., Ferrazzano, M., & Summa, L. (2020). Legal Issues in AI forensics: understanding the importance of humanware. In *Proceedings of the International Workshop on Applications of AI to Forensics 2020* (AI2Forensics 2020) (pp. 13–20). https://hdl.handle.net/11585/780955

Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, *3*(51), S33–S35. https://doi.org/10.21839/jaar.2018.v3iS1.165

Ramahi, H. (2015). *Education in Palestine: Current challenges and emancipatory alternatives*. Rosa Luxemburg Stiftung Regional office of Palestine. https://tinyurl.com/tk28rc5m

Raman, K., & Yamat, H. (2014). Barriers teachers face in integrating ICT during English lessons: A case study. *Malaysian Online Journal of Educational Technology*, *2*(3), 11–19. https://eric.ed.gov/?id=EJ1086402

Rauf, A. A., & Swanto, S. (2020). Attitudes and technology integration among ESL secondary school teachers in Sabah. *Malaysian Journal of Social Sciences and Humanities* (MJSSH), *5*(12), 280–287. https://doi.org/10.47405/mjssh.v5i12.566

Ravenek, M. J., & Rudman, D. L. (2013). Bridging conceptions of quality in moments of qualitative research. *International Journal of Qualitative Methods*, *12*(1), 436–456. https://doi.org/10.1177/160940691301200121

Ravitch, S. M., & Riggan, M. (2017). *Reason & rigor: How conceptual frameworks guide research* (2nd ed.). SAGE.

Raygan, A., & Moradkhani, S. (2020). Factors influencing technology integration in an EFL context: Investigating EFL teachers' attitudes, TPACK level, and educational climate. *Computer Assisted Language Learning*. https://doi.org/10.1080/09588221.2020.1839106

Razak, N. A., Alakrash, H., & Sahboun, Y. (2018). English language teachers' readiness for the application of technology towards fourth industrial revolution demands. *Asia-Pacific Journal of Information Technology and Multimedia*, *7*(2), 89–98.

Razif, M., Miraja, B. A., Persada, S. F., Nadlifatin, R., Belgiawan, P. F., Redi, A. A. N. P., & Shu-Chiang, L. (2020). Investigating the role of environmental concern and the Unified Theory of Acceptance and Use of Technology on working from home technologies adoption during COVID-19. *Entrepreneurship and Sustainability Issues*, *8*(1), 795–808. http://doi.org/10.9770/jesi.2020.8.1(53)

Rees, C. E., Crampton, P. E., & Monrouxe, L. V. (2020). Re-visioning academic medicine through a constructionist lens. *Academic Medicine*, *95*(6), 846–850. https://doi.org/10.1097/ACM.0000000000003109

Reid, A. M., Brown, J. M., Smith, J. M., Cope, A. C., & Jamieson, S. (2018). Ethical dilemmas and reflexivity in qualitative research. *Perspectives on Medical Education*, *7*, 69–75. https://doi.org/10.1007/s40037-018-0412-2

Relative Insight. (2023, April 26). *Word frequency analysis: What word clouds are hiding*. https://tinyurl.com/3ht8fbph

Reeve, J., Ryan, R. M., Deci, E. L., & Jang, H. (2008). Understanding and promoting autonomous self-regulation: A self-determination theory perspective. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and applications* (pp. 223–244). Lawrence Erlbaum.

Richards, J. C. (2006). *Communicative language teaching today*. Cambridge University Press. https://tinyurl.com/nhdemrnh

Ritchie, J., Lewis, J., Elam, G., Tennant, R., & Rahim, N. (2014). Designing and selecting samples. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researchers* (2nd ed., pp. 156–198). SAGE.

Ritchie, J. & Spencer, L. (2002). Qualitative data analysis for applied policy research. In A. Bryman & R. G. Burgess (Eds.) *Analyzing qualitative data* (pp.173–194). Routledge.

Rixon, S. (2013). *British Council survey of policy and practice in primary ELT worldwide*. British Council. https://tinyurl.com/yhmn48pa

Roblek, V., Mesko, M., Dimovski, V., & Peterlin, J. (2019). Smart technologies as social innovation and complex social issues of the Z generation. *Kybernetes*, *48*(1), 91–107. https://tinyurl.com/3zh8z74n

Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology*, *11*(1), 25–41. https://doi.org/10.1080/14780887.2013.801543

Robinson, H. A., Al-Freih, M., & Kilgore, W. (2020). Designing with care: Towards a care-centered model for online learning design. *The International Journal of Information and Learning Technology*, *37*(3), 99–108. https://doi.org/10.1108/IJILT-10-2019-0098

Rogers, S. (2018, February 8). Computer-assisted language learning & media selection. *AACE Review*. https://tinyurl.com/5dns3yy6

Romrell, D., Kidder, L., & Wood, E. (2014). The SAMR model as a framework for evaluating mLearning. *Online Learning Journal*, *18*(2), Article 183753. https://www.learntechlib.org/p/183753/

Rouse, M. (2016, May 18). Humanware: What does humanware mean? *Techopedia*. https://www.techopedia.com/definition/623/humanware

Rowley, J., & Slack, F. (2004). Conducting a literature review. *Management Research News*, *27*(6), 31–39. https://doi.org/10.1108/01409170410784185

Rozendaal, M. C., Boon, B., & Kaptelinin, V. (2019). Objects with intent: Designing everyday things as collaborative partners. *ACM Transactions on Computer-Human Interaction*, *26*(4), 1–30. https://doi.org/10.1145/3325277

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). SAGE.

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes in qualitative data. *Field Methods, 15*(1), 85–109. https://tinyurl.com/472pjak8

Sah, L. K., Singh, D. R., & Sah, R. K. (2020). Conducting qualitative interviews using virtual communication tools amid COVID-19 pandemic: A learning opportunity for future research. *Journal of the Nepal Medical Association*, *58*(232), 1103–1106. https://doi.org/10.31729/jnma.5738

Sahu, P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus, 12*(4), Article e7541. https://doi.org/10.7759/cureus.7541

Saleh, A. M., & Meccawy, Z. (2021). EFL female students' perceptions towards cheating in distance learning programmes. *English Language Teaching*, *14*(1), 29–36. https://eric.ed.gov/?id=EJ1282830

Sandholtz, J. H., Ringstaff, C., & Dwyer, D. C. (1992). Teaching in high-tech environments: Classroom management revisited. *Journal of Educational Computing Research*, *8*(4), 479–505. https://doi.org/10.2190/Y5NE-V9RQ-FD63-WC2N

Sangrà, A., Vlachopoulos, D., & Cabrera, N. (2012). Building an inclusive definition of e learning: An approach to the conceptual framework. *International Review of Research in Open and Distributed Learning*, *13*(2), 145–159. https://tinyurl.com/4sb73738

Sarid, Y. (2011, August 26). Lebensraum as a justification for Israeli settlements. *Haaretz.* https://tinyurl.com/3kbw6y9c

Sarirete, A., & Costa, C. (2009). Building and sustaining communities of practice: A humanware approach. In *D.DIS.11 – PALETTE workshop proceedings* (pp. 38–44). https://tinyurl.com/yckxmnsp

Saumure, K., & Given, L. M. (2008a). Convenience sample. In L. M. Given (Ed.) *SAGE Encyclopedia of Qualitative Research Methods* (pp. 124–125). SAGE.

Saumure, K., & Given, L. M. (2008b). Nonprobability sampling. In L. M. Given (Ed.) *SAGE Encyclopedia of Qualitative Research Methods* (pp. 562–563). SAGE.

Savvidou, C., & Alexander, K. (2022). It has potential but…'— Exploring university students' experiences and perceptions of breakout rooms during the COVID-19 pandemic. *The Journal of Teaching English with Technology*, *22*(2), 3–26. https://tewtjournal.org/volume-2022/issue-2/

Sawahel, W. (2023, November 7). 439 HE students and staff killed, universities hit in war. *University World News*. https://tinyurl.com/2hwebv8f

Seale, J., Draffan, E. A., & Wald, M. (2010). Digital agility and digital decision-making: Conceptualising digital inclusion in the context of disabled learners in higher education. *Studies in Higher Education*, *35*(4), 445–461. https://doi.org/10.1080/03075070903131628

Seaman, J. E., Allen, I. E., & Seaman, J. (2018). *Grade increase: Tracking distance education in the United States*. Babson Survey Research Group. https://tinyurl.com/2s6zyrz6

Siegle, D. (2023, June 19). *Educational research basics: Open, in vivo, axial, and selective coding*. University of Connecticut. https://tinyurl.com/nw53shae

Self, B. (2021, September). Conducting interviews during the COVID-19 pandemic and beyond. *Forum: Qualitative Social Research*, *22*(3), Article 15. https://doi.org/10.17169/fqs-22.3.3741

Shanahan, M. & Bahia, K. (2023, October). *The state of mobile internet connectivity 2023*. GSMA Intelligence. https://tinyurl.com/5du47mu5

Shimada, H. (1986). *Industrial relations and "humanware": A study of Japanese investment in automobile manufacturing in the U.S.* (Report No. MITJSTP; 86-04) MIT-Japan Science and Technology Program. http://hdl.handle.net/1721.1/7569

Shobeiry, M. (2024). A longitudinal qualitative study on Iranian university lecturers' identity reconstruction during the COVID-19 pandemic through text-mining: A dynamic approach. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*, Article 13. https://doi.org/10.1186/s40862-023-00234-0

Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. John Wiley & Sons.

Shraim, K. (2012). Moving towards e-learning paradigm: Readiness of higher education institutions in Palestine. *International Journal on E-Learning* (IJEL), *11*(4), 441–463. https://tinyurl.com/mrvc9536

Shraim, K. (2018). Palestine (West Bank and Gaza Strip). In A. Weber, & S. Hamlaoui (Eds.), *ELearning in the Middle East and North Africa (MENA) Region* (pp. 309–332). Springer.

Shraim, K. (2019). Online examination practices in higher education institutions: Learners' perspectives. *Turkish Online Journal of Distance Education*, *20*(4), Article 12. https://doi.org/10.17718/tojde.640588

Shraim, K., & Crompton, H. (2020). The use of technology to continue learning in Palestine disrupted with COVID-19. *Asian Journal of Distance Education*, *15*(2), 1–20. https://doi.org/10.5281/zenodo.4292589

Shraim, K., & Khlaif, Z. (2010). An e-learning approach to secondary education in Palestine: opportunities and challenges. *Information Technology for Development*, *16*(3), 159–173. https://doi.org/10.1080/02681102.2010.501782

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15*(2), 4–14. https://doi.org/10.3102/0013189X015002004

Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, *57*(1), 1–22. https://doi.org/10.17763/haer.57.1.j463w79r56455411

Siregar, I., Sari, R. M., Syahputri, K., Rizkya, I., Hanifiah, Y., & Muchtar, M. A. (2016, November). Indicators coefficient calculation using technoware, humanware, organware and infoware. In *Proceedings of the 1st International Conference on Social and Political Development* (ICOSOP 2016) (pp. 89–95). Atlantis Press. https://doi.org/10.2991/icosop-16.2017.12

Smith, J. A. (1994). Towards reflexive practice: Engaging participants as co-researchers or co-analysts in psychological inquiry. *Journal of Community & Applied Social Psychology*, *4*(4), 253–260. https://doi.org/10.1002/casp.2450040405

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, *104*, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Sofianidis, A., Meletiou-Mavrotheris, M., Konstantinou, P., Stylianidou, N., & Katzis, K. (2021). Let students talk about emergency remote teaching experience: Secondary students' perceptions on their experience during the COVID-19 pandemic. *Education Sciences*, *11*(6), 268. https://doi.org/10.3390/educsci11060268

Sokol, S. (2024, January 1). Far-right ministers call to 'resettle' Gaza's Palestinians, build settlements in Strip. *The Times of Israel*. https://tinyurl.com/3f6884ay

Somekh, B. (2008). Factors affecting teachers' pedagogical adoption of ICT. In J. Voogt & G. Knezek (Eds.), *Springer international handbook of information technology in primary and secondary education* (Vol. 20, pp. 449–460). Springer.

Song, Y., Fu, X., & Richards, C. (2019, July 29). A use case of humanware and cloud-based cyberinfrastructure: Time-series data classification using machine learning. In *HARC '19: Proceedings of the humans in the loop: Enabling and facilitating research on cloud computing*, *Article 6*, 1–7. https://doi.org/10.1145/3355738.3355748

Soper, T., & Ukot, E. (2016). Social presence and cultural competence in the online learning environment (OLE): A review of literature. *American Journal of Health Sciences (AJHS)*, *7*(1), 9–14. https://doi.org/10.19030/ajhs.v7i1.9692

Šorgo, A., Ploj Virtič, M., & Dolenc, K. (2023). The idea that digital remote learning can happen anytime, anywhere in forced online teacher education is a myth. *Technology, Knowledge and Learning*, *28*(4), 1461–1484. https://doi.org/10.1007/s10758-023-09685-3

Spada, N. (2007). Communicative language teaching: Current status and future prospects. In J. Cummins & C. Davison (Eds.), *International handbooks of English language teaching*. (Vol. 15, p. 271–288). Springer Science Business Media, LLC.

Spencer, L., Ritchie, J., O'Connor, W., Morrell, G., & Ormston, R. (2014). Analysis: Principles and processes. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researchers* (2nd ed., pp. 376–433). SAGE.

Spencer, L., Ritchie, J., O'Connor, W., Morrell, G., & Ormston, R. (2014). Analysis: Principles and processes. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researchers* (2nd ed., pp. 376–433). SAGE.

Spielman, R. M., Dumper, K., Jenkins, W., Lacombe, A., Lovett, M., & Perlmutter, M. (2020). Introduction to psychology. In N. Arduini-Van Hoose & P. Carroll (Eds.), *Lumen Learning* [Courseware] (Chapter 9). https://tinyurl.com/mse8vuev

Spradley, J. P. (1979). *The ethnographic interview*. Holt, Rinehart & Winston.

Sri, L., Piyush, A. K., & Puli, V. (2023). Hotel reviews analysis using machine learning algorithms and text mining model. *Journal of Science & Technology (JST)*, *8*(12), 31–39. https://doi.org/10.46243/jst.2023.v8.i12.pp31-39

Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 443–466). SAGE.

Stake, R. E. (2006). *Multiple case study analysis*. The Guilford Press.

Stemler, S. (2000). An overview of content analysis. *Practical Assessment, Research, and Evaluation*, *7*(17), 1–6. https://doi.org/10.7275/z6fm-2e34

Stipek, D. (2002). *Motivation to learn: From theory to practice* (4th ed.). Allyn & Bacon.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). SAGE.

Sujarwanto; Sheehy, K.; Rofiah, K., & Budiyanto (2021). Online higher education: The importance of students' epistemological beliefs, well-being, and fun. *IAFOR Journal of Education-Studies in Education: Sustainable Education for the Future*, *9*(6), 9–30. https://doi.org/10.22492/ije.9.6.01

Sullivan, J. R. (2012). Skype: An appropriate method of data collection for qualitative interviews? *The Hilltop Review*, *6*(1), Article 10. https://tinyurl.com/38k2k6ws

Summers, M. (1990). New student teachers and computers: An investigation of experiences and feelings. *Educational review*, *42*(3), 261–271. https://doi.org/10.1080/0013191900420304

Svrcek, N. S., Rath, Olmstead, K., & Colantonio-Yurko, K. (2022). "We are still putting out fires": Considering educator intentionality in remote instruction during the COVID-19 pandemic. *Education and Information Technologies*, *27*(1), 407–428. https://doi.org/10.1007/s10639-021-10679-w

Tafazoli, D. (2021a). CALL teachers' professional development amid the COVID-19 outbreak: A qualitative study. *Computer Assisted Language Learning Electronic Journal*, *22*(2), 4–13. https://callej.org/index.php/journal/article/view/342/272

Tafazoli, D. (2021b). Teachers' readiness for online language teaching: An ecological approach. *Journal of Foreign Language Research*, *11*(3), 393–411. https://jflr.ut.ac.ir/jufile?ar_sfile=1297453&lang=en

Tafazoli, D., & Meihami, H. (2022). Narrative inquiry for CALL teacher preparation programs amidst the COVID-19 pandemic: Language teachers' technological needs and suggestions. *Journal of Computers in Education*, 10, 163–187. https://doi.org/10.1007/s40692-022-00227-x

Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. In M. J. Hatch & M. Schultz (Eds.), *Organizational identity: A reader* (pp. 56–65). Oxford University Press.

Tam, G., & El-Azar D. (2020, March 13). 3 ways the coronavirus pandemic could reshape education. *The Agenda Weekly*. World Economic Forum. https://tinyurl.com/366x59ss

Tamim, S. R., & Grant, M. M. (2013). Definitions and uses: Case study of teachers implementing project-based learning. *Interdisciplinary Journal of Problem-Based Learning*, *7*(2), 72–101. https://doi.org/10.7771/1541-5015.1323.

Tan, A. (2020, May 30). Thinking about digital access (Part 2): Humanware. *Another dot in the blogosphere?* http://tinyurl.com/7wjppuav

Tarus, J. K., Gichoya, D., & Muumbo, A. (2015). Challenges of implementing e-learning in Kenya: A case of Kenyan public universities. *International Review of Research in Open and Distributed Learning*, *16*(1), 120–141. https://doi.org/10.19173/irrodl.v16i1.1816

Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology*, *29*(1), 24–54. https://doi.org/10.1177/0261927X09351

Technology acceptance model. (2024, May 17). In *Wikipedia*. https://tinyurl.com/ycynddvs

Techslang. (2024, May 3). *What is humanware? A short definition of humanware*. https://www.techslang.com/definition/what-is-humanware/

Teddlie, C., & Tashakkori, A. (2011). Mixed methods research: Contemporary issues in an emerging field. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 285–300). SAGE.

Tedre, M., Bangu, N., & Nyagava, S. I. (2009). Contextualized IT education in Tanzania: Beyond standard IT curricula. *Journal of Information Technology Education*, *8*(1), 101–124. https://www.learntechlib.org/p/111393/

The 2006 Palestinian Legislative Election. (2024, November 30). In *Wikipedia*. Retrieved December 1, 2024 from https://tinyurl.com/mpk3fhk5

The Association of Commonwealth Universities. (2020). *Higher education during COVID-19: A snapshot of digital engagement in commonwealth universities* (ED607557). ERIC. https://eric.ed.gov/?q=ED607557&id=ED607560

The World Bank. (2019). *Expectations and aspirations: A new framework for education in the Middle East and North Africa* [Overview booklet]. https://tinyurl.com/ms9zys2m

The World Bank. (2023, October 23). *Middle East and North Africa: Macro poverty outlook*. https://tinyurl.com/23sejx8f

The World Health Organization. (2021, January 29). *Listings of WHO's response to COVID-19*. Retrieved December 5, 2024 from https://www.who.int/news/item/29-06-2020-covidtimeline

Thomas, K. W., & Kilmann, R. H. (1975). The social desirability variable in organizational research: An alternative explanation for reported findings. *Academy of Management Journal*, *18*, 741–752. https://doi.org/10.5465/255376

Thorne, E. (2020, August 5). *Leveraging tech in the developing world: For Covid-19 and beyond*. Tony Blair Institute for Global Change. https://tinyurl.com/ywwan7rd

Todd, R. W. (2020). Teachers' perceptions of the shift from the classroom to online teaching. *International Journal of TESOL Studies*, *2*(2), 4–16. https://doi.org/10.46451/ijts.2020.09.02

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, *5*, 147–158. http://hdl.handle.net/10125/227

Torres, I. & Evans, J. (2020). Emotion and online learning. In D. Schmidt-Crawford (Ed.), *Proceedings of society for information technology & teacher education international conference* (pp. 330–333). https://www.learntechlib.org/primary/p/216018/

Torsani, S. (2016). *CALL teacher education: Language teachers and technology integration*. Sense Publishers.

Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative Inquiry*, *16*(10), 837–851. https://doi.org/10.1177/1077800410383121

Tsai, C. C., Chai, C. S., Wong, B. K. S., Hong, H. Y., & Tan, S. C. (2013). Positioning design epistemology and its applications in education technology. *Journal of Educational Technology & Society*, *16*(2), 81–90. http://www.jstor.org/stable/jeductechsoci.16.2.81

Turnbull, D., Chugh, R. & Luck, J. (2021). Transitioning to e-learning during the COVID-19 pandemic: How have higher education institutions responded to the challenge? *Education and Information Technology*, (26), 6401–6419. https://doi.org/10.1007/s10639-021-10633-w

Turner, D. W. (2010). Qualitative interview design: A practical guide for novice investigators. *The Qualitative Report*, *15*(3), 754–760. http://nsuworks.nova.edu/tqr/vol15/iss3/19

United Nations Children's Fund USA. (2021, January 28). *Nutrition crisis looms as more than 39 billion in-school meals missed since start of pandemic – UNICEF and WFP* [Press release]. https://tinyurl.com/uu8ebh2c

United Nations Educational, Scientific and Cultural Organization. (2020a, March 24). *COVID-19 educational disruption and response*. https://tinyurl.com/w8emydc8

United Nations Educational, Scientific and Cultural Organization. (2020b, April 21). *Startling digital divides in distance learning emerge* [Press release]. https://tinyurl.com/3rtwvf5k

United Nations Educational, Scientific and Cultural Organization. (2023, April 20). *COVID-19 in Palestine: How distance learning will help student continue education.* https://tinyurl.com/4em5butw

United Nations Educational, Scientific and Cultural Organization Global Education Coalition. (2021, March 29). *Supporting learning recovery one year into COVID-19: The Global Education Coalition in action* [Document code: ED/GEC/2021/01/REV]. https://unesdoc.unesco.org/ark:/48223/pf0000376061

United Nations Educational, Scientific and Cultural Organization Institute for Statistics. (2013, April). *Information and communication technology (ICT) in education in five Arab states* [Information paper]. https://tinyurl.com/4sp3cnea

United Nations Educational, Scientific and Cultural Organization International Institute for Higher Education in Latin America and the Caribbean. (2020). *COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations* [ISBN : 978-980-7175-52-4]. https://tinyurl.com/ps8kxe9n

United Nations Educational, Scientific and Cultural Organization International Institute for Higher Education in Latin America and the Caribbean. (2022). *Resuming or reforming? Tracking the global impact of the COVID-19 pandemic on higher education after two years of disruption* [ISBN : 978-980-7175-66-1]. https://tinyurl.com/bu3uxdf7

United Nations General Assembly. (2015, Oct 21). *Transforming our world: The 2030 agenda for sustainable development* [Resolution 70/1 adopted by the General Assembly on 25 September 2015]. https://tinyurl.com/4mfwt7kd

University Library Groningen. (2022). *Library guides/information literacy: Search methods*. https://libguides.rug.nl/ivo-en/searchmethods

University of Nicosia. (2020a, March 6). *COVID-19 new precautionary measures.* Retrieved November 13, 2024 from https://www.unic.ac.cy/covid-19-new-precautionary-measures/

University of Nicosia. (2020b, March 12). *COVID-19 – Important announcement.* Retrieved November 13, 2024 from https://www.unic.ac.cy/covid-19-important-announcement-12-march-2020/

University of Nicosia. (2020c, March 15). *Arrangements for online teaching of the non-lab courses | Plans for the practicum and the lab and studio courses.* Retrieved November 13, 2024 from https://www.unic.ac.cy/covid-19-studying-online-online-training-sessions-for-all-students-monday-16-03-2020/

Urquhart, C. (2019). Grounded theory's best kept secret: The ability to build theory. In A. Bryant, & K. Charmaz (Eds.), *The SAGE handbook of grounded theory* (pp. 89–106). SAGE.

Vahle, C., de Araujo, Z., Han, J., & Otten, S. (2023). Teachers' instructional responses to the COVID-19 pandemic. *Teaching and Teacher Education*, *124*, Article 104040. https://doi.org/10.1016/j.tate.2023.104040

Van de Vijver, F. J., & Tanzer, N. K. (2004). Bias and equivalence in cross-cultural assessment. *European Review of Applied Psychology*, *54*(2), 119–135. https://doi.org/10.1016/j.erap.2003.12.004

van den Beemt, A., & Diepstraten, I. (2016). Teacher perspectives on ICT: A learning ecology approach. *Computers & Education*, 92, 161–170. https://doi.org/10.1016/j.compedu.2015.10.017

Varpio, L., & MacLeod, A. (2020). Philosophy of science series: Harnessing the multidisciplinary edge effect by exploring paradigms, ontologies, epistemologies, axiologies, and methodologies. *Academic Medicine*, *95*(5), 686–689. https://doi.org/10.1097/ACM.0000000000003142

Venkatesh, V., Morris, M.G., Davis, G.B., Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, *27*(3), 425–478. https://doi.org/10.2307/30036540

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016) Unified Theory of Acceptance and Use of Technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*, *17*(5), 328–326. https://doi.org/10.17705/1jais.00428

Voss, C., Tsikriktsis, N., & Frohlich, M. (2002). Case research in operations management. *International Journal of Operations & Production Management, 22*(2), 195–219.

Vygotsky, L. S. (1980). *Mind in society: The development of higher psychological processes*. Harvard University Press. (Original work published 1978)

Wachenheim, C., Idowu, A., & Hanson, E. (2023). Student feedback on use of breakout rooms. *NACTA Journal*, *67*(1). https://doi.org/10.56103/nactaj.v67i1.100

Wladis, C., Hachey, A. C., & Conway, K. (2023). Did emergency remote teaching and the COVID-19 pandemic exacerbate inequities? Considering institution type, gender, and race/ethnicity. *The Journal of Higher Education*, *95*(3), 313–349. https://doi.org/10.1080/00221546.2023.2250696

Walsh, L. L., Arango-Caro, S., Wester, E. R., & Callis-Duehl, K. (2021). Training faculty as an institutional response to COVID-19 emergency remote teaching supported by data. *CBE Life Sciences Education*, *20*(3), 1–11. https://doi.org/10.1187/cbe.20-12-0277

Walters, S., Grover, K. S., Turner, R. C., & Alexander, J. C. (2017). Faculty perceptions related to teaching online: A starting point for designing faculty development initiatives. *Turkish Online Journal of Distance Education*, *18*(4), 4–19. https://doi.org/10.17718/tojde.340365

Warschauer, M. (1996). Computer assisted language learning: An introduction. In S. Fotos (Ed.), *Multimedia language teaching* (pp. 3–20). Logos International. http://www.ict4lt.org/en/warschauer.htm

Warschauer, M. (2002). A developmental perspective on technology in language education. *TESOL Quarterly*, *36*(3), 453–475. https://doi.org/10.2307/3588421

Warschauer, M. (2006). Networking the Nile: Technology and professional development in Egypt. In J. Inman & B. Hewett (Eds), *Technology and English studies: Innovative professional paths* (pp. 163–172. Lawrence Erlbaum.

Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching*, *31*(2), 57–71. https://doi.org/10.1017/S0261444800012970

Wahyuni, S., Mujiyanto, J., Rukmini, D., & Fitriati, S. W. (2020, June). Teachers' technology integration into English instructions: SAMR model. In *International Conference on Science and Education and Technology (ISET 2019)* (pp. 546–550). Atlantis Press. https://doi.org/10.2991/assehr.k.200620.109

Weber, R. P. (1990). Basic content *analysis* (2nd ed.). SAGE.

Weimer, M. (2002). *Learner-centered teaching: Five key changes to practice* (1st ed.). Jossey-Bass.

Wen, K. Y. K., & Kim, H. T. (2020). ESL Teachers' intention in adopting online educational technologies during COVID-19 pandemic. *Journal of Education and e-Learning Research*, *7*(4), 387–394. https://doi.org/10.20448/journal.509.2020.74.387.394

White, C. (1999). Expectations and emergent beliefs of self-instructed language learners. *System*, *27*(4), 443–457. https://doi.org/10.1016/S0346-251X(99)00044-5

White, C. (2003). *Language learning in distance education*. Cambridge University Press.

White, C. (2006). State-of-the-art review article: The distance learning of foreign languages. *Language Teaching*, *39*(4), 247–264. https://doi.org/10.1017/S0261444806003727

White, C. (2009). Towards a learner-based theory of distance language learning: The concept of the learner-context interface. In P. Hubbard (Ed.) *Computer assisted language learning: Critical concepts in linguistics: Vol IV: Present trends and future directions in CALL* (pp. 97–112). Routledge. http://hdl.handle.net/10179/1876

Whiteside, A. L. (2017). Understanding social presence as a critical literacy: Introduction to part four. In A. L. Whiteside, A. G. Dikkers, & K. Swan (Eds.), *Social presence in online learning* (1st ed., pp. 133–142). Routledge. https://doi.org/10.4324/9781003447023

Wijaya, T. T., Rizki, L. M., Yunita, W., Salamah, U., Pereira, J., Zhang, C., Xinxin, L., & Purnama, A. (2021, November). Technology integration to teaching mathematics in higher education during coronavirus pandemic using SAMR model. *Journal of Physics:*

Conference Series, *2123*(1), Article 012043. https://doi.org/10.1088/17426596/2123/1/012043

Wilkins, S., Butt, M. M., Hazzam, J., & Marder, B. (2023). Collaborative learning in online breakout rooms: The effects of learner attributes on purposeful interpersonal interaction and perceived learning. *International Journal of Educational Management*, *37*(2), 465–482. https://doi.org/10.1108/IJEM-10-2022-0412

Wilson, K. B., & Acheampong, B. (2014). Implications of computer technology in language teaching: Accessing CALL in teacher education. *US-China Education Review A*, *4*(9), 651–661. https://tinyurl.com/4tavvcx8

Windes, D. L., & Lesht, F. L. (2014). The effects of online teaching experience and institution type on faculty perceptions of teaching online. *Online Journal of Distance Learning Administration*, *17*(1), 1–12. https://ojdla.com/archive/spring171/windes_lesht171.pdf

Winkler, J. D., Kanouse, D. E., & Ware, J. E. (1982). Controlling for Acquiescence Response Set in scale development. *Journal of Applied Psychology*, *67*(5), Article 555. https://doi.org/10.1037/0021-9010.67.5.555

Wise, J. M. & Im, T. (2015). Framework for assessment from an institutional perspective. In S. Koç, X. Liu, & P. Wachira (Eds.), *Assessment in online and blended learning environments* (pp. 289–306). Information Age Publishing.

Wiske, M. S., Zodhiates, P., Wilson, B., Gordon, M., Harvey, W., Krensky, L., Lord, B., Watt, M., & Wiliams, K. (1988, March). *How technology affects teaching* [Technical Report]. Educational Technology Center, Harvard Graduate School of Education & Education Development Center, Inc. https://files.eric.ed.gov/fulltext/ED296706.pdf

Wohlin, C. (2014, May 13). *Guidelines for snowballing in systematic literature studies and a replication in software engineering*, (38), 1–10. In *Proceedings of the 18th international conference on evaluation and assessment in software engineering* (pp. 1-10). http://dx.doi.org/10.1145/2601248.2601268https://www.wohlin.eu/ease14.pdf

Wong, B., & Chai, C. S. (2010). Asian personal epistemologies and beyond: Overview and some reflections. *The Asia-Pacific Education Researcher*, *19*(1), 1–6. http://tinyurl.com/wfyfxpz3

Woollard, J. (2011). *Psychology for the classroom: e-learning*. Routledge. https://doi.org/10.4324/9780203819166

Wozney, L., Venkatesh, V., & Abrimi, P. (2006). Implementing computer technologies: Teachers' perceptions and practices. *Journal of Technology and Teacher Education*, *14*, 173–207. https://tinyurl.com/1fi31srh

Xie, J., Gulinna, A., Rice, M. F., & Griswold, D. E. (2021a). Instructional designers' shifting thinking about supporting teaching during and post-COVID-19. *Distance Education*, *42*(3), 331–351. https://doi.org/10.1080/01587919.2021.1956305

Xu, L. (2012). The role of teachers' beliefs in the language teaching-learning process. *Theory & Practice in Language Studies*, *2*(7), 1397–1402. https://doi.org/10.4304/tpls.2.7.1397-1402

Xu, D., & Xu, Y. (2019). *The promises and limits of online higher education: Understanding how distance education affects access, cost, and quality.* American Enterprise Institute. https://files.eric.ed.gov/fulltext/ED596296.pdf

Yadegari, M., Mohammadi, S., & Masoumi, A. H. (2022). Technology adoption: An analysis of the major models and theories. *Technology Analysis & Strategic Management*, *36*(6), 1096–1110. https://doi.org/10.1080/09537325.2022.2071255

Yan, F., Wu, N., Iliyasu, A. M., Kawamoto, K., & Hirota, K. (2022). Framework for identifying and visualising emotional atmosphere in online learning environments in the COVID-19 Era. *Applied Intelligence*, *52*(8), 9406–9422. https://doi.org/10.1007/s10489-021-02916-z

Yang, J., Mu, L., & Grigsby-Toussaint, D. S. (2024). Public perceptions and expectations of urban park environments on children's play: A GIS and text mining analysis on children's activity in Atlanta's parks using social media data. *Environment and Planning B: Urban Analytics and City Science*, *0*(0). https://doi.org/10.1177/23998083241260484

Yazan, B., Selvi, A. F., & Uzum, B. (2013, April). In search of teacher identity in second language teacher education. *TESOL Teacher Education Interest Section Newsletter*. https://tinyurl.com/5yapfz24

Yeung, M. Y. L., Cheng, H. H. M., Chan, P. T. W., & Kwok, D. W. Y. (2023). Communication technology and teacher–student relationship in the tertiary ESL classroom during the pandemic: A case study. *SN Computer Science*, *4*(2), Article 202. https://doi.org/10.1007/s42979-023-01667-7

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE.

Yeskil, Z. (2020, April 9). *New meet features to improve distance learning*. https://www.blog.google/outreach-initiatives/education/meet-for-edu/

Young, M. E., & Ryan, A. (2020). Postpositivism in health professions education scholarship. *Academic Medicine*, *95*(5), 695–699. https://doi.org/10.1097/ACM.0000000000003089

Yucel, U. A., & Gulbahar, Y. (2013). Technology acceptance model: A review of the prior predictors. *Ankara University Journal of Faculty of Educational Sciences* (JFES), *46*(1), 89–109. https://doi.org/10.1501/Egifak_0000001275

Zareian, G., & Jodaei, H. (2015). Motivation in second language acquisition: A state of the art article. *International Journal of Social Sciences & Education*, *5*(2), 295–308. https://eric.ed.gov/?id=ED585770

Zhang, L., & Hwang, Y. (2023). "Should I change myself or not?": Examining (Re) constructed language teacher identity during the COVID-19 pandemic through text-mining. *Teaching and Teacher Education*, *127*, Article 104092. https://doi.org/10.1016/j.tate.2023.104092

Zhang, Y., & Wang, P. (2022). Twenty years' development of teacher identity research: A bibliometric analysis. *Frontiers in Psychology*, *12*, Article 783913. https://doi.org/10.3389/fpsyg.2021.783913

Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 outbreak.

Journal   of   Risk   and   Financial   Management,   *13*(3),   Article   55.
https://doi.org/10.3390/jrfm13030055

Zhu, D. (2019, December 10). *Child's play: Coding booms among Chinese children*.
TechXplore. https://tinyurl.com/2vey4jwa

Ziegler, H. (2022). *Distance education dilemma*. Helen Ziegler and Associates.
https://tinyurl.com/yecnhb6b

APPENDICES

Appendix I: Google Classroom, Google Meet, Google Breakout Rooms

Google Classroom

Google Classroom is a free web-based document management tool developed by Google for use by educational institutions and released on August 12, 2014 (Cains, 2019). Designed to operate in a web browser or on mobile devices running the Android or IOS operating system, Classroom is intended to simplify the creation, distribution, and grading of assignments by streamlining the process of file-sharing between teachers and students. Google Classroom does this by integrating the Google Docs, Sheets, Slides, G-mail, and Calendar applications into a cohesive platform. Classroom serves as a virtual space where documents can be created, edited, and stored for use by teachers and students. Teachers can invite students to join classes on the platform by sending out a private code or by onboarding students via importation from a school domain. Assignments can then be created, distributed, and marked completely within the Google Classroom ecosystem (Cains, 2019). More than 100 million students and educators worldwide use the Google Classroom platform (Yeskil, 2020). As a component of the approach to e-learning adopted at The University, instructors used Classroom as a space for managing various documents associated with the processes of teaching and learning, distributing and receiving assignments, and communicating with students.

Google Meet

Google Meet is an online video communication and conferencing service launched in March 2017 and intended to operate along with Google Chat as a replacement for Google Hangouts. Some Google Meet features include support for up to 100 participants per call on the G Suite Basic Plan, the ability to join sessions by calling in from a dial-in number, and a screen-sharing function that can be used to present documents, presentations, and spreadsheets. As a response to the COVID-19 crisis, Google opened up free use of the Meet advanced enterprise (Enterprise Plus) features to all holders of a Google account. This increased potential meeting capacity to 250 participants and removed the 60-minute meeting time limit that had been imposed on free calls. West Bank University instructors, including the participants in the present study, were intended to move their courses online by using Google Meet as a virtual space for convening class sessions.

Google Breakout Rooms

Breakout rooms are a feature of upgraded versions of Google Meet included in several Google Workspace editions including Education Plus and Essentials with Teaching and Learning Upgrade. Users of the updated versions of the mobile Google Meet and Gmail apps can participate in breakout rooms. According to the Google Workspace Updates page, the tool was first added to Google Enterprise for Education on October 8, 2020 and later rolled out to additional Google Workspace editions.

The breakout room function allows meeting moderators to divide video call participants into smaller groups during a call. Up to 100 separate video calls can be created within the main video call, and each breakout group cannot see or hear the other groups. A moderator can create breakout rooms in advance in Google Calendar, or create rooms while a meeting is in progress. When creating a room during a meeting, the moderator chooses the number of breakout rooms to initiate and Google then randomly groups people to rooms. The moderator can then manually

adjust room membership if desired. In 2021, Google added an option to Google Calendar that allowed the creation of preset breakout rooms and the establishment of groups ahead of time via the moderator's Google Contacts list.

Participants in a breakout room can engage in audio-video chat and send internal chat messages to each other. The moderator can join individual rooms at any time to monitor or participate in discussion. Breakout room members can also send notifications to the teacher/moderator if they need help. The moderator can make changes to the membership of breakout room groups after they have been initiated, set timers for the rooms, and close individual rooms or all rooms as desired.

Appendix II: Teacher Interview Protocols 1–4

INTERVIEW PROTOCOL: Interview 1

OPENING/INTRODUCTION:
Good morning. This is Hidayat Abu El Hawa. It is [TIME] am/pm on [DAY], [DATE], 2020. I am here with [PARTICIPANT NAME] for Interview 1 of our research project. The focus of today's interview is GENERAL OVERVIEW: USING ICT AT THE UNIVERSITY DURING THE PANDEMIC.

  The focus of this interview is to gather general information from the English language teachers at West Bank University regarding their ideas and opinions about using ICT in education and especially for use in English language teaching.

INTERVIEW QUESTIONS:
Theme: Personal views about using ICT in your practice.

Question 1: What are your views about using e-learning for ELT?
Probe: Explore the respondent's degree of positivity or scepticism about the use of ICT in their professional practice.

Question 2: To what degree do you feel confident using the internet in your teaching?
Probe: Why do you feel confident/not confident using the internet?

Question 3: What makes you feel more or less confident in your use of e-learning in teaching?
Probe: Why do you feel competent or not competent?
Probe: How does the use of e-learning compared to traditional teaching impact your prep time?
Probe: Have you had any training for teaching online? Do you feel you need training?

Question 4: How do you benchmark your level of confidence in using e-learning?

Question 5: What are the key issues that you face when using e-learning in ELT?
Probe: Technical problems, connection speed, space in the IT lab/room.
Probe: To what degree do you find e-learning to be problematic and why?

Question 6: Could you comment on the ability of your students to make use of e-learning in their learning?
Probe: What do you think about the online materials you have available. Are they appropriate for your students? Why or why not?
Probe: How much interest and motivation do your students have toward online learning?

Question 7: Do you feel that the university supports you in your use of e-learning in your teaching?
Probe: What is the university doing well to support you? What could be done better?

Probe: What kind of specific assistance would be the most useful? e.g. help with lesson planning; more paid preparation time; higher pay.

INTERVIEW PROTOCOL: Interview 2

OPENING/INTRODUCTION:
Good morning. This is Hidayat Abu El Hawa. It is [TIME] am/pm on [DAY], [DATE], 2020. I am here with [PARTICIPANT NAME] for Interview 2 of our research project. The focus of today's interview is ADOPTING A PEDAGOGY FOR E-LEARNING.

Pedagogy refers to the methods and practices of teaching, or the strategies and techniques a teacher uses to deliver lessons. Most teachers know that the emergence of the internet and digital technology have had an impact on teaching and learning. New types of pedagogy have developed, methods that are called digitally mediated instruction or e-learning.

For teachers who were not already using technology-enhanced and online instructional strategies at WBU and many other institutions, major changes in the way they teach post-secondary students were triggered by a sudden immersion in online learning as a result of COVID-19 restrictions. Many instructors at West Bank University have encountered a gap between the pedagogical theories they were trained in and the new pedagogies centred around the practical use of networked digital technologies for teaching and learning, or what we refer to as e-learning.

Now, the major challenge regarding applying ICT to support teaching and learning solutions for higher education in Palestine is the formulation and execution of ICT integration strategies capable of sustaining our efforts to prepare students to enter the competitive global environment.

The focus of this interview is to explore the ways English language teachers at WBU are working to adapt to the use of e-learning and to develop new pedagogical strategies that are effective for use with Palestinian students enrolled in courses delivered via e-learning.

INTERVIEW QUESTIONS:
Theme: Teachers and students in e-learning courses

Question 1: Please give a brief comparison from your viewpoint of online teaching or e-learning as compared to traditional F2F instruction.
Probe: What is the most problematic aspect of online teaching and learning?
Probe: What is the most advantageous aspect of online teaching and learning?

Question 2: What has been your biggest difficulty or challenge in relation to our sudden adoption of online course delivery?
Probe: So, choosing between technical, pedagogical, and human-related challenges, which would you say was the greatest and why?

Question 3: How has your role as a teacher changed since your courses have become part of the ICT integrated programme?

Probe: Please make a general comment on the teacher's role in an online course as compared to an F2F course.

Question 4: How do you think delivering English language classes online impacts the students' motivation?

Probe: In your opinion, what aspects of e-learning have the most effect on student motivation?

Probe: Please compare e-learning with F2F learning in terms of effects on student motivation.

Question 5: Has using online learning methodologies had any appreciable effect on student performance or brought about any improvement? Why or why not?

Probe: What do your base your observations of student performance on when using e-learning techniques?

Probe: How have you adapted your evaluation strategies to fit with an e-learning pedagogy?

Theme: Online pedagogy

Question 6: What factors do you consider when planning a lesson that you will deliver online?

Probe: Can you tell me anything about your process of setting objectives for an online lesson? Is it different than for a face-to-face lesson?

Probe: How about your preparation time? Is it longer or shorter than for a face-to-face lesson? Why?

Probe: What kind of assistance do you need or would you like in designing your online lessons?

Question 7: What specific new pedagogical strategies have you applied in order to adapt your instruction to the online environment?

Probe: Why did you choose these?

Theme: Google Meet and Google Classroom

Question 8: We have been using Google Meet and Google Classroom as platforms for our e-learning courses. What do you think about these platforms?

Probe: Would you like to make any comments or suggestions about other platforms or applications that you would like to use or might be useful for our online English language courses?

Probe: What other supplemental websites, tools, and applications are you using for delivering your online courses?

Theme: Google Breakout Rooms

Question 9: Have you ever used Google Breakout Rooms in your online teaching? Why or why not?

Probe: If breakout rooms **were not used**, what were the particular reasons for not using them?

Probe: If breakout rooms **were not used**, were there any points at which their use might have been beneficial to either the students or the teacher?

Probe: If breakout rooms **were used**, how were they used during the session(s)?

Possible follow ups:

- How were the transitions to and from the rooms (smooth or not smooth)?

- What type of technical issues, if any, were associated with the use of breakout rooms?

- What did you do to make sure your explanation to the students about what would happen in the room was clear and well-understood?

- What did the breakout room activity involve?

- How well did the activity seem to work for the different students in the group?

- How did the timing for the activity work out?

Probe: If breakout rooms **were used**, did any of the students comment on the breakout room activity in the session evaluation? If they did, what did they observe about the process?

Theme: University adoption of language lab technology

Question 10: Now that you have more experience in teaching with technology, why do you think the university decided to invest in a language lab?

Probe: What impacts do you think the lab will have on student learning?

Probe: What impacts do you think the lab will have on your approach teaching?

INTERVIEW PROTOCOL: Interview 3

OPENING/INTRODUCTION:

Hello. This is Hidayat Abu ElHawa. It is [TIME] am/pm on [DAY], [DATE], 2021.

I am here with [PARTICIPANT NAME] for Interview 3 of our research project.

The focus of today's interview is on TEACHERS' PERCEPTIONS OF THE EFFECTS OF E-LEARNING ON STUDENT EPISTEMOLOGY AND MOTIVATION.

Epistemology refers to the conception of what knowledge is and how one comes to possess knowledge or "know"; students will have nurtured such a conception throughout their previous educational encounters (Bates, 2019; Laurillard, 2002). Laurillard observed that students have notions of what learning is and how it should be performed. Bates noted that teachers' choice of teaching approaches and the use of technology are dependent on beliefs and assumptions teachers hold about the nature of knowledge, about the requirements of the subject discipline, and about how they think students learn.

A relevant data claim regarding student epistemologies, or the way students perceive knowledge and learning in an e-learning context, may concern teachers' beliefs regarding their students' possession of expectations regarding what constitutes valid knowledge and how they

should be taught. For example, in an e-learning context, professors might assume that students feel cynical about lab-style lessons that do not follow traditional methods. Moreover, a teacher might assume that students will want or need online materials to directly connect with the course examinations.

Therefore, in this study, it is expected that central issues regarding student epistemology might be captured by some or all of the following examples:

- Students may have negative feelings about teachers' use of ICT for course delivery instead of following traditional instructional approaches.
- Students may feel that the process of acquiring knowledge is more effectively undertaken in a face-to-face (F2F) setting than via e-learning.
- Students may feel that working with the technological interface (and dealing with associated difficulties) distracts them from the target content and the learning process.
- There may be mismatches between levels of subject content knowledge and levels of technical skills/knowledge on the part of both teachers and students.
- Students may feel the need to be provided with online materials that directly relate to course examination content. This contrasts with processes involving student generation of knowledge.
- Teachers and students may undergo challenges to and changes in their epistemologies as their involvement with e-learning continues.

The ramifications of instructors failing to understand and address such issues may include students becoming concerned, critical, and demotivated because the teaching does not correspond to their expectations and conceptions of learning. This can in turn demotivate teachers and heighten their concerns regarding the use of the internet for course delivery.

The focus of this interview is to explore West Bank University English language teachers' comprehension of their students' epistemologies of learning and the teachers' practical encounters with and reactions to student epistemologies.

INTERVIEW QUESTIONS:
Theme: Teachers' perceptions of the effects of e-learning on student epistemology and motivation.
Question 1: How would you define quality teaching in terms of teaching with e-learning tools in a digital age?
Probe: Can you describe any ways that your definition or view of quality teaching has changed since our transition to the e-learning mode?

Question 2: "Epistemology concerns our (teachers' and students') conception of what knowledge is and beliefs and assumptions regarding the sources and development of knowledge." How has your conception of what knowledge is and what students need to know changed since our transition to the e-learning mode?

Question 3: E-learning calls for teachers and students to master both content knowledge and the technical skills needed to access that knowledge. Can you comment on the relationship between subject-related content/knowledge and the development of necessary technical skills in your courses? How have you addressed this matter?

Question 4: In a related question, now that students must study via e-learning, how do you think the students' relationship with technology specifically influences their views of studying and learning?
Probe: How about their views of language learning processes in particular?

Question 5: What are your general impressions of your students' feelings about the new style of learning experience they have been engaged in since the change to online teaching and learning?
Probe: Can you give specific examples and/or evidence that supports your impressions?

Question 6: Can you identify major differences in the way students react to and approach the online learning experience as compared to their reaction to the traditional F2F classroom experience?
Probe: If you can identify differences, what do you think causes these differences in student attitude and reaction?

Question 7: A common characteristic of quality e-learning is more active student engagement in gathering information and developing knowledge by themselves rather than passively waiting for an instructor to dispense or convey knowledge. Please comment on any changes in your students' relationship with knowledge and the acquisition of knowledge that you have noted since transitioning to e-learning.

Question 8: The concept of student-directed learning or student generation of knowledge is foundational to many developing theories of sound e-learning pedagogy. How does this concept fit into a model of online English language teaching?

Question 9: Preliminary research indicates that students may be distressed when instructional strategies, especially those that encourage peer-to-peer knowledge generation and sharing, conflict with students' epistemological beliefs. (For example, we might think that our students tend to prefer unambiguous content, questions with a single correct answer, and answers delivered from or explicitly sanctioned by the instructor.)
Have you seen any signs of such distress? Can you give examples?
Probe: How could such distress be used/what role might it play in achieving learning objectives?

Question 10: We are now completing one year with the use of e-learning pedagogies as our primary teaching approach. Please offer a general summary comment on the effects this year

has had on your students in terms of their views of knowledge and learning and their motivation to study and learn.

INTERVIEW PROTOCOL: Interview 4

OPENING/INTRODUCTION:
Hello. This is Hidayat Abu ElHawa. It is [TIME] am/pm on [DAY], [DATE], 2021.
I am here with [PARTICIPANT NAME] for Interview 4 of our research project.
The focus of today's interview is on DIGITALLY MEDIATED TEACHING AND LEARNING: CHALLENGES, STRATEGIES, AND STUDENT ENGAGEMENT & SKILLS MASTERY.

According to UNESCO, the United Nations Educational, Scientific, and Cultural Organization, more than 1.5 billion students and youth across the planet are or have been affected by school and university closures due to the COVID-19 pandemic. As of January 25, 2021, UNESCO calculated that over 800 million students, more than half the world's student population, still faced significant disruptions to their education, ranging from full school closures in 31 countries to reduced or part-time academic schedules in another 48 countries. Globally, schools were fully closed for an average of 3.5 months (14 weeks) since the onset of the pandemic. This figure rises to 5.5 months (22 weeks)—equivalent to two-thirds of an academic year—when localised school closures are taken into account.

The rapid, unexpected, and "forced" transition from face-to-face to remote teaching, now being called by some researchers "emergency remote teaching" (ERT) or "emergency eLearning" serves a different purpose than traditional e-learning does. It is a rapidly implemented stop-gap measure rather than a carefully planned and designed curricular initiative. The transition to ERT has entailed a number of challenges and constraints but also offered opportunities that need to be examined. A significant body of research exploring teachers' and student's experience with ERT is already accumulating.

Our interviews are contributing to that body of knowledge, and the purpose of today's interview is to allow you to offer your perspectives and opinions on the transition to, and ongoing deployment of, ERT now that the shock of the initial transition has passed, you have faced the challenges, developed strategies, and learned more about the factors of student engagement and skills mastery in your digitally mediated classrooms.

INTERVIEW QUESTIONS:
Theme: E-Learning and the institution
Question 1: From your perspective, how has our intensive ICT use impacted institutional teaching standards?

Question 2: How would you rate the performance of ICT management within the university during this emergency transition to e-learning?
Probe: If you could give one critical suggestion for improvement, what would it be?

Question 3: What is your vision for ICT use within the university going forward?
Probe: Do you think the institution should build on the model that has been developed during this past year of using ERT pedagogies? Why or why not?

Theme: E-Learning and teaching
Question 4: How do you balance the use of synchronous and asynchronous e-learning activities?
Probe: How do students react to these two different approaches to learning?

Question 5: Now that you know more about using Breakout Rooms, are you more willing to use them? Why or why not?
Probe: If you used Breakout Rooms, what did you think about them?
Probe: What kind of activities do you give the students in breakout rooms?
Probe: Please comment on the following statement: Teachers may hesitate to use Breakout Rooms because that would shift focus from teacher-centred models of teaching and learning over to a more student-centred pedagogy.

Question 6: What are some techniques or methods you use to increase student motivation and willingness to stay engaged with you, the course materials, and the other students?
Probe: What kind of change does this represent compared to your face-to-face teaching?

Question 7: How do you deal with student silence when you pose questions in an online format, either during voice interaction or in discussion/chat boards?
Probe: Do you think students are more likely to stay silent in an e-learning class? If yes/no, why?

Question 8: How have your students been performing on collaborative tasks in particular during their online learning?
Probe: What changes have you noticed over time in the student's ability and engagement when it comes to collaborative online learning?

Question 9: What if any specific strategies have you used in your online teaching to stimulate and teach higher-order/critical thinking skills among the students?
Probe: To what degree do you use methods like self-directed learning, collaborative learning, critical inquiry, and strategies that put students in a position to analyse, synthesise, and evaluate information and problems?
Probe: If you have used any of the above methods, which one(s) do you think have been most productive or successful?

Question 10: In relation to language teaching specifically, when teaching online, how do you check students' performance in and mastery of the four language skills?
Probe: Which of the four skills do you think is most easily addressed in an online context?

Question 11: What special strategies and methods are needed to teach and support EFL students in a setting where only online instruction is being used?
Probe: What are the advantages of online instruction for language teaching and learning?
Probe: What are the disadvantages of online instruction for language teaching and learning?

Question 12: What methods do you use to offer technology support to your students?
Probe: Do you provide links to student tutorials for using the technology?
Probe: Do you often engage in offering support activities yourself?

Question 13: We all run into technical challenges when designing and delivering virtual courses. What do you do to work at improving your ability to handle technical challenges and teach effectively with technology?
Probe: When it comes to teaching with technology, if you could suddenly become an expert at or master of one thing to greatly improve your teaching, what would it be?

Question 14: What would help you to make better use of ICT to support learning?

Question 15: Please talk a little about this new world of teaching with technology and delivering online courses that we are in and our jobs as teachers to prepare our students for success in the modern world.
Probe: Even when the pandemic is over, maybe universities have a duty to offer all courses at least in a blended format (face to face and online parts in every course) to help prepare students for the modern workplace. What do you think?

Theme: E-Learning and students
Question 16: What is your opinion on the acquisition of digital literacy?
Probe: Please list a few of the skills you believe students require to succeed in a knowledge society.

Question 17: How do you think your students' use of technology outside the university fits in with how you teach and how they study and learn your subject?

Appendix III: University Research Clearance Letters

Date: 09/04/2020

To: Dr. Christine Savvidou

From:

Re: ethical approval for a research project proposed by Mrs. Hidayat Abu El Hawa

Greetings Dr. Christine Savvidou,

It is my pleasure to write to you regarding required local ethical approval for the dissertation research project *The Use of E-Learning in English Language Teaching at a Palestinian University: A Case Study of Teachers' Beliefs* to be conducted at . The purpose of this letter is to inform all concerned parties at the University of Nicosia and elsewhere that Mrs. Abu El Hawa is and will be properly adhering to all ethical requirements, guidelines, and norms in the design and conduct of the above noted research project.

has recently established an organized Office of Research Ethics or Institutional Review Board and awaiting for the approval of the Board of trustees. In the meantime, all research projects proposed by faculty and students are reviewed by and conducted under the oversight of the Office of Scientific Research. Mrs. Abu El Hawa has made contact with our office and is correctly following all requirements regarding research conducted on campus with a potential sample population comprised of administrative staff, faculty, and/or students.

Mrs. Abu El Hawa has submitted for review a proposal for the above noted qualitative case study research project to be carried out with the aim of exploring, identifying, and describing specific factors affecting the adoption and use of e-Learning as a pedagogical tool for English language teaching at a newly established Palestinian university.

As the principal investigator for this study, Mrs. El Hawa has made a commitment to and plan for adhering to all basic considerations, accepting all responsibilities, and following all procedures pertinent to maintaining a strictly ethical approach to the design and conduct of educational research. To this end, Mrs. El Hawa will be following the measures outlined in the British Educational Research Association's (BERA) guidebook *Ethical Guidelines For Educational Research* (2018, 4th ed.), with necessary adjustments made as appropriate to the local cultural context.

(10)

As per the BERA recommendations in regard to informed consent, transparency, right to withdraw, and associated matters, prospective research participants will receive a written Invitation to Participate offering a description and explanation of the project, including a discussion of the researcher's role and interest in the study. The invitation to participate will focus on clarity and repetition of key information in order to ensure that potential participants understand the purposes, risks, and potential benefits of the research as fully as possible.

Every possible effort will be made to obtain free, informed, and ongoing consent from any invitees who choose to participate in the research project. An Informed Consent document will be presented for signature by each participant. This document will outline in simple language and detailed manner all major aspects of the research, including steps taken to ensure participant confidentiality and data security.

The voluntary nature of participation in this project will be emphasized in both the Invitation to Participate and the Informed Consent documents. To maintain the voluntary aspect of participation in the research, participants shall be made aware of their freedom to withdraw their consent to participate at any time with no need to offer any reason for doing so. The invitation and consent documents will also make potential participants aware that there will be no reward for participation other than possible positive effects in terms of professional development.

To briefly summarize for the purposes of this letter, Mrs. Abu El Hawa will adhere to basic considerations and procedures pertinent to maintaining an ethical approach to the design and conduct of this study including but not limited to those noted below:

- Relevant permissions and access grants will be obtained from appropriate officials and other stakeholders at the research site, including clearance from the Office of Scientific Research.
- Informed Consent documents including clear description of the methods and objectives of the research will be provided to the participants for signature.
- Participants will be given specific notice of their right to drop out of the research project at any time.
- Specific permission will be obtained prior to the use of any audio/video recording equipment during the interview phases of data collection.
- All data will be stored in a secure location and kept confidential.
- To the degree that 100% confidentiality cannot be assured, participants will be fully informed.
- The researcher will take all possible measures to ensure that data collection and analysis techniques as well as the inferences to be drawn from the findings are robust and meet the criteria for quality and integrity associated with the selected research approach.

(10)

- In the research report and any publications that may follow, all participant personal details and research site information will remain anonymous.
- Participants will be offered review access to the research data and preliminary drafts of the research report.
- Participants will be offered copies of the final report along with any permissions they need to share the results if they wish to do so.

Please feel free to forward requests for further information and any other inquiries to the University Office of Scientific Research.

Best Regards.

(10)

UNIVERSITY of NICOSIA

Please complete Sections A, B and C

DEPARTMENT OF LANGUAGES AND LITERATURE RESEARCH ETHICS APPROVAL APPLICATION FORM	
Name & Surname	Hidayat Abu Elhawa
Course	Ph.D 710
Project title	The Use of E-Learning in English Language Teaching at a Palestinian University: A Case Study of Teachers' Beliefs.
Project supervisor(s)	Dr. Chris Alexander

A. Project Summary

In no more than 1500 words, please include the following information:
- *Explain the rationale for the study*
- *Briefly describe previous research and state the research problem*
- *State research questions/hypotheses*
- *Discuss the methodology, with reference to: Research design, Sample, Methods and Procedures, Analysis, Ethical considerations*

Rationale of the study:

The site of the proposed research study, , an institution specializing in the fields of security, military, and police sciences, was established as a higher education institution in 2007 and is the newest Palestinian government university. an institution-wide e-learning programme, and with the recent COVID-19 pandemic situation leading to an emergency declaration and lockdown, an urgent need arose for the university to develop the means to provide a university-wide e-learning programme that could deliver virtual course offerings and electronic exam administrations for all departments. embarked on this effort and began working to convert many existing course offerings to an e-learning format. This study is intended to capture the responses of seven Al-Istiqlal University English language teachers to the adoption of e-learning pedagogies and online delivery modes for their English Language Teaching (ELT) courses.

Statement of Problem:

1

There is an overall lack of information regarding the success of ICT policies and implementations in the educational systems of developing countries such as Palestine (Organization Talal Abu-Ghazaleh, 2013). Regarding the adoption of ICT in ELT in particular, it would be informative to investigate the effectiveness of e-learning when used with students studying English language in Palestinian contexts. The newly-established _____ y e-learning programme offers an excellent opportunity to scrutinise the implementation and use of e-learning in ELT as delivered in a developing country.

Research Questions:

1. What is the current landscape of challenges and possibilities in the adoption and use of ICT as a pedagogical and professional-development tool for ELT in Palestine?
2. What benefits and drawbacks do _____ ELT teachers associate with the adoption and use of e-learning as a pedagogical tool?
3. What specific problems do _____ ELT teachers face when transitioning from traditional F2F teaching to the use of e-learning methodologies?
4. What are _____ ELT teachers' beliefs about the use of e-learning in the Palestinian educational context?
5. How can theories regarding effective e-learning pedagogy contribute to the development of a model for e-learning adoption and use in the _____ University ELT programme?

Methodology:

Researcher will use case study approach in order to understand the teachers' adoption and use of e-learning in ELT at _____ demands extensive, in-depth descriptions of the participants' beliefs and perceptions regarding the e-learning implementation.

The sample are colleagues of the researcher and also meet the criteria of being teachers of ELT in a university programme that is making a transition to the use of e-learning technologies and methodologies. Regarding ethical consideration, this research will ensure the necessary ethical respect of people, knowledge, democratic values, quality and academic freedom. The participants will be treated fairly and with respect, without any bias of age, gender, sexuality, race, ethnicity, cultural/religious/political belief and class. They will receive a thorough explanation in the form of an approved information sheet about the process and ethical issues, and they can withdraw their participation from the study at any time.

The researcher will partially transcribe the audio-recorded interviews, the semi-structured interviews will be scrutinised according to emerging themes in the open-ended questions, Nivo software generates. A grounded theory approach will construct theories through inductive reasoning. Inductive thematic analysis will be employed to uncover codes, themes, concepts and categories in the interview findings
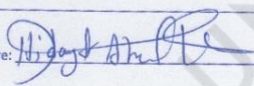
B. Ethics Information

I have read and will adhere to the ethical guidelines and principles set out by relevant national, international and professional associations: (Give details)

Consent

1.	Participants will be informed in writing about the purpose of the study, methods and end use of the research (including dissemination of findings)	Yes / No
2.	Are any participants likely to be particularly vulnerable, your own student, adults with incapacity, or in a professional relationship with the researcher?	Yes / No
3.	In the event children and young people are involved, informed written consent is gained from guardians	Yes / No
4.	If the study is conducted within a school or other educational institution, consent is obtained from the relevant teacher(s), head teacher(s), principal and other key administrators	Yes / No
5.	In the event children and young people are involved, efforts will be taken to ensure the best interests of the child are of primary concern	Yes / No
6.	The effects of translation and/or interpretation on gaining consent will be considered	Yes / No
7.	Researchers have consulted relevant legislation and local laws with regard to gaining informed consent	Yes / No

Transparency

8.	The researcher is open and honest with participants in respect to avoiding non-disclosure	Yes / No
9.	The researcher will not undertake work perceived to have a conflict of interest and/or which might compromise the objectivity of the research	Yes / No
10.	Will feedback of findings be given to participants?	Yes / No

Right to withdraw

11.	The researcher will provide their own contact details to participants	Yes / No
12.	The researcher will inform participants in writing of the right to withdraw consent for any reason and at any time during the research and without incurring any harm.	Yes / No

Risks

13.	The researcher will make known to participants (or their guardians or responsible others) any predictable disadvantage or harm potentially arising from the process or reporting of the research	Yes / No
14.	The researcher will immediately reconsider any actions occurring during the research process that appear to cause emotional or other harm, in order to minimise such harm.	Yes / No
15.	The researcher will recognise concerns relating to the time and effort that participation in the research will require.	Yes / No

Confidentiality

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16.	The confidential and anonymous treatment of participants' data will be ensured	Yes / No
17.	Data will be stored securely in accordance with relevant data protection laws?	Yes / No
18.	Data will be kept for no longer than is necessary for the purposes for which the data is collected and analysed. After a stated period of time, it will be securely destroyed	Yes / No

C. Informed consent form

Please attach the informed consent form(s) for participants

I have read the University of Nicosia CODE OF PRACTICE AND REGULATIONS FOR DOCTORAL PROGRAMMES (Version 4.0 (February 2019) in relation to Scientific or Ethical Misconduct in Research:

Faculty members and students are expected to display/practice/follow utmost professional integrity when undertaking research, both in their practice and publications. Any scientific or ethical misconduct in research is unacceptable and should be brought to the Senate's Faculty or Student Disciplinary Committee.

Examples of unacceptable conduct, whether based upon deliberate, reckless or negligent behaviour are given below:

a. failure to obtain appropriate permission to conduct research
b. unethical behaviour in the conduct of research and the subsequent writing up of the Thesis
c. cheating, plagiarism, or dishonest use of unacknowledged sources
d. misquotation or misrepresentation of other authors
e. attempting, planning or conspiring to be involved in research misconduct
f. inciting others to be involved in research misconduct
g. unauthorised use of information which was acquired confidentially
h. deviation from good research practice, in particular where this results in risk of harm to humans, animals or the environment
i. fabrication, falsification or corruption of research data
j. distortion of research outcomes (e.g. manipulation or omission of data that do not fit expected results)
k. dishonest misinterpretation of results
l. publication of data known or believed to be false or misleading
m. fraud or other misuse of research funds or research equipment
n. collusion in or concealment of research misconduct by others

Signature: Hidayat Arm...   Date: 17/9/2020

Appendix IV: Research Participant Invitation Letter

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

Project Title: The Use of E-Learning in English Language Teaching at a Palestinian University: A Case Study

Investigators: Hidayat Abu Elhawa

Academic Instructor in West Bank University Languages Department.

Email Hidayatabuelhawa@pass.ps

Dear Colleague,

You are invited to participate in a research project designed to gather information about teachers' experiences with the adoption and use of e-learning as a pedagogical tool for ELT at a Palestinian university.

The researcher, Hidayat Abu Elhawa, is enroled as an PhD candidate in the Department of English Language and Literature, University of Nicosia–Cyprus. The study is being conducted in partial fulfilment of TESOL programme requirements under the supervision of Dr. Christopher Alexander of the University of Nicosia.

The main topics of interest in the study are the possibilities and challenges related to Palestinian university ELT teachers' adoption and use of e-learning as a pedagogical and professional-development tool for ELT. The study will also explore and describe the key issues teachers face regarding using e-learning in ELT and investigate possibilities for addressing those issues.

If you take part in the study, you will be asked to participate in at least six interviews with the researcher, to be carried out at your work place or another location of your choosing. The interviews will be audio recorded and transcribed, and will be the primary data source for this research project. Each interview will require at least 60 minutes of your time. Additional interviews may be scheduled as needed by mutual consent, or follow-up questions from the researcher may be handled by email.

Participation in this research project is completely voluntary and you may choose to withdraw at any time or decline to answer any questions that you do not feel comfortable with.

Should you choose to participate in the study, you will receive an Informed Consent/Participant Information form with further details about the research and your potential role in it.

Please let us know as soon as possible if you are interested in participating or would like more information. You may contact Hidayat Abu Elhawa via the email address above.

Thank you,

Hidayat Abu Elhawa

Appendix V: Research Study Informed Consent Form

UNIVERSITY OF NICOSIA
Research Study Informed Consent Form

Study Title: THE USE OF E-LEARNING IN ENGLISH LANGUAGE TEACHING AT A PALESTINIAN UNIVERSITY: A CASE STUDY of TEACHERS' BELIEFS

Researcher: Hidayat Abu Elhawa, Academic instructor at West Bank University. PhD candidate at University of Nicosia

You are being asked to take part in a research study carried out by PhD candidate Hidayat Abu Elhawa. This form explains the research study and your part in it should you decide to join the study. Please read the form carefully, taking as much time as you need. Ask the researcher to explain anything you don't understand. You can decide not to participate in the study. If you decide to participate in the study, you can change your mind later and withdraw from the study at any time. There will be no penalty or loss of services or benefits if you decide not to participate in the study or if you decide to participate then later withdraw from the study.

The University of Nicosia Department of English Language and Literature and the West Bank University Office of Scientific Research have certified and approved this study.

What is this study about?
This research study is being done to gather information about teachers' beliefs on the adoption and use of e-learning as a pedagogical tool for ELT at a Palestinian university. The main topics of interest in the study are Palestinian university ELT teachers' beliefs regarding the possibilities and challenges related to the adoption and use of e-learning as a pedagogical and professional-development tool for ELT. The study will also explore and describe the key issues teachers face when using e-learning in ELT and investigate possibilities for addressing those issues.

This study is guided by the following research questions:
RQ1. What is the current landscape of challenges and possibilities in the adoption and use of ICT as a pedagogical and professional-development tool for ELT in Palestine?
RQ2. What benefits and drawbacks do West Bank University ELT teachers associate with the adoption and use of e-learning as a pedagogical tool?
RQ3. What specific problems do West Bank University ELT teachers face when transitioning from traditional F2F teaching to the use of e-learning methodologies?
RQ4. What are the West Bank University ELT teachers' beliefs about the use of e-learning in the Palestinian educational context?
RQ5. How can theories regarding effective e-learning pedagogy contribute to the development of a model for e-learning adoption and use in the West Bank University ELT programme?

An over-arching objective of the research is to gain an understanding of West Bank University ELT teachers' viewpoints regarding the issues faced by teachers who are adopting use of e-learning as a pedagogical tool in university English language courses.

Why are you being asked to participate?
You are being asked to take part in this study because you are a West Bank University ELT teacher who is currently adopting e-learning as a pedagogical tool for your ELT courses. The researcher is working under the assumption that ELT teachers currently involved in the adoption of e-learning technologies

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and techniques at West Bank University would be the best source of information on the topic of this study.

How much time will it take to participate?
Taking part in the study will involve participating in at least six interviews with the researcher, to be carried out at your workplace or another location of your choosing. Each interview will require at least 30 minutes of your time. Additional interviews may be scheduled as needed by mutual consent, or follow-up questions from the researcher may be handled by email. Your total time involved for participation in this research project is estimated to be 5 hours or less, including reviewing study data and other materials and responding to emails and/or phone calls.

What will I be asked to do if I am in this study?
If you take part in the study, you will be asked to participate in at least at least six interviews with the researcher. The interviews will be audio recorded and transcribed, and will be the primary data source for this research project.

   The interviews will be based on a standard list of open-ended questions. This question list was created during a review of literature on e-learning and ELT pedagogy. The interviews will be semi-structured—that is, you will be free to depart from the standard questions and describe or discuss the topic at hand as you wish.

   After the interviews are transcribed and data analysis is conducted, the transcription and analysis results will be provided so that you may check them for accuracy. At this time, you may offer corrections and feedback to the researcher if you wish.

   At the completion of the project and the research report, you will receive a copy of the report and be invited to join the researcher and other participants in a discussion of the research findings. Participation in this activity will be at your discretion.

   Although the interview questions will not concern any personal or sensitive information, you may refuse to answer questions at your discretion. You may also choose to withdraw completely from the study at any time and have any data collected up to that point excluded from the research project.

Are there any benefits to me if I am in this study?
There are no rewards or direct benefits to you other than the possible positive effects that might accrue from participation itself. You may benefit by learning more about the use of e-learning for ELT pedagogy. The findings from this research may have practical significance for anyone using e-learning pedagogies in Palestinian university settings.

Are there any risks to me if I am in this study?
The only significant risk associated with this research is the possible loss of confidentiality. Every available measure will be employed to maintain the anonymity of participants involved in this research. However, participants must be aware that absolute confidentiality cannot be 100% guaranteed.

Will my information be kept private?
The data for this study will be kept confidential to the extent allowed by law. No published results will identify you, and your name will not be associated with the findings. Under certain circumstances, information that identifies you may be released for internal and external reviews of this project.

   The data collected during this study will be de-identified, and all participants and research sites will be kept anonymous. Pseudonyms will be used for the purposes of data analysis and reporting, and all private information known to the researcher will be kept strictly confidential. Raw data that may contain details of participant identity or other identifying features will be stored on a flash drive kept in a locked file cabinet in the researcher's private office at home. The Principal and Co-Investigator will be the only individuals who will see the raw data. Only de-identified and anonymised data will be stored on networked computers for the purposes of analysis and other work.

Raw research data will not be shared with university officials or any other individuals or entities. However, anonymised data may be used in dissertations, articles for academic publication, conferences, presentations, and for other typical academic purposes. All possible efforts will be made to maintain confidentiality, but the nature of the research context limits the researcher's ability to guarantee complete anonymity regarding the identities of participants and non-participants in the research.

What are my rights as a research study volunteer?
Your participation in this research study is completely voluntary. You can decide not to participate in the study. If you decide to participate in the study, you can change your mind later and withdraw from the study at any time. There will be no penalty or loss of services or benefits if you decide not to participate in the study or if you decide to participate then later withdraw from the study. You also have the right to contact the researcher or the West Bank University Office of Scientific Research at any time with questions, concerns, or complaints.

_____ Please initial here and sign the consent page that follows if you understand all of the above information and agree to participate in the dissertation research project **The Use of E-Learning in English Language Teaching at a Palestinian University: A Case Study of Teachers' Beliefs**

What does my signature on this consent form mean?
Your signature on this form indicates that:
- You understand the information given to you in this form.
- You have been able to ask the researcher questions and state any concerns.
- The researcher has responded to your questions and concerns.
- You believe you understand the research study and the potential benefits and risks that are involved.

Statement of Consent
I give my voluntary consent to take part in this study. I will be given a copy of this consent document for my records.

_____ _____
Signature of Participant   Date

Statement of Person Obtaining Informed Consent
I have carefully explained to the person taking part in the study what he or she can expect.
I certify that when this person signs this form, to the best of my knowledge, he or she understands the purpose, procedures, potential benefits, and potential risks of participation.
I also certify that he or she:
- Speaks the language used to explain this research.
- Reads well enough to understand this form.
- Does not have any problems that could make it hard to understand what it means to take part in this research.

_____ _____