THE USE OF ICT DURING COVID-19: A STUDY OF CHINESE INDEPENDENT HIGH SCHOOL ENGLISH TEACHERS' READINESS AND CHALLENGES

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APPROVAL FORM

This research paper attached hereto, entitled "The Use of ICT During COVID-19: A Study of Chinese Independent High School English Teachers' Readiness and Challenges" prepared and submitted by Lelia Myriam Bong Siu Mien in partial fulfilment of the requirements for the Bachelor of Arts (Hons) English Education is hereby accepted.

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Date 12/09/22

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DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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ABSTRACT

With the emergence of Emergency Remote Teaching in Malaysia during the pandemic, government schools or tertiary institution's teachers' readiness for ICT use is well-researched. However, the situation in Chinese Independent High School (CIHS) may suggest a different outcome. A study was conducted to explore the CIHS English teachers' readiness level and challenges faced in using ICT tools during the Emergency Remote Teaching. The participants consist of 27 teachers across CIHSs from Sarawak, Malaysia in this mixed-method study. A descriptive analysis was performed on the questionnaire survey while a thematic analysis was done on the interview data. Following these, the survey found that teachers obtained very high levels of knowledge in ICT while the readiness level for ICT use was at a high level. Overall, the respondents held positive attitudes towards the use of ICT. On the other hand, the interview data identified four main scopes of challenges faced by the teachers: classroom management, inadequate ICT facilities and conducive environment, lack of user-friendly platforms as well as the emotional aspect. Among which, student engagement and poor internet connection were the primary issues. The research is significant in understanding the language teaching situation in Malaysian CIHSs. Stakeholders should arrange for frequent trainings that incorporate pedagogical aspects or provide manuals to increase teacher's readiness levels in using ICT. Then, the management should also look into providing fundings for better quality gadgets to achieve effective teaching. Future studies may employ a similar study design involving a larger group of participants for concrete results. Other studies may also consider CIHS' student readiness.

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Abbreviations	Definitions
CEFR	Common European Framework of References
CIHS	Chinese Independent High School
CLT	Communicative Language Teaching
ELT	English language teaching
ICT	Information and Communications Technology
IR	Industrial revolution
IT	Information technology
MOOC	Massive Open Online Courses
PDA	Personal digital assistant
SPSS	Statistical Package for Social Sciences
STU	Sarawak Teachers' Union
TAM	Technology Acceptance Model
TPACK	Technological Pedagogical Content Knowledge
%	Percentage

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

In the 21st century, the Internet is not a stranger to many as it is part and parcel of human's daily life. To define, Internet refers to "a worldwide computer network that can be accessed via a computer, mobile telephone, PDA, games machine, digital TV, etc." (Hajare et al., 2017). This means that the Internet allows for connection to all corners of the world without restriction through various digital tools. This comes from the birth of the Internet which stems from unending research and development (Xue, 2005 as cited in Salman et al., 2013). As a result, the Internet has drastically changed the way humans live in every aspect. It then indirectly affects a country's socio-economic development and country status. With that, many countries have strived to improve the use of technology and the Internet in hopes of becoming a developed country (Cavdar & Aydin, 2015). Malaysia was no exception to the trend of becoming a developed country.

The present state of Internet use in Malaysia did not come without a history of developments. In fact, the primary development of the Internet started since 1990, and the internet age officially began in 1996 with the advent of Malaysia's first search engine – *Cari Internet* (Salman et al., 2013). From then onwards, Internet slowly integrated into the lives of the people, starting with its use in government sectors. As a developing and middle-income country, there are many gaps to fill in order to achieve an Internet nation. The government had introduced plans and policies to make the Internet accessible for the people. Just to mention a few, the "One Home, One Computer" policy in 1990, the Universal Service Provision program, the 1Malaysia Netbooks and more were implemented to make the Internet reachable in every corner of Malaysia (Salman et al., 2013).

When the recent COVID-19 pandemic hit, Malaysia was dawned with a drastic increase in Internet usage. This was a result of transferring daily life activities into a virtual world – the Internet. To point out, there was an increase in Malaysian Internet users over the pandemic. According to the Department of Statistics Malaysia (2021), the percentage of internet users increased from 84.2% to 89.6% in the year 2019-2020. Similarly, a survey conducted by the Malaysian Communications and Multimedia Commission also found that the pandemic caused users to spend more hours using the Internet (Malaysian Communications And Multimedia Commission, 2020). Tracing back to the time, the spread of COVID-19 in Malaysia began on 6th February 2020 with the very first local transmission case (Elengoe, 2020). Then, the following month saw a huge spike in cases which brought a halt to all physical activities with the announcement of the Movement Control Order. From then onwards, the transformation of the Internet's role in human's life was brought to light. This includes various aspects such as communication, shopping, news, social networking, reading, entertainment and more. Therefore, it is evident that the Internet has played a bigger role and become a lifestyle due to the pandemic.

Correspondingly, the increase in Internet usage applies to the education field as well. During the pandemic period, there was a major shift from a traditional classroom to a virtual learning environment for all levels of education. 18th March 2020 marked the beginning of this transition, as the government announced an emergency remote teaching to tackle the education needs during the pandemic (Lee, 2020). Due to that reason, the field of educational technology has grown in recent years. With that being said, the inclusion of Information and Communications Technology (ICT) in education has become a trend. To point out, ICT refers to a modern integration of communication mediums for the use of digital data through diverse technological tools and resources (Zafar, 2019). It can be seen that the communication element

in technology plays an important role in the field of education, especially more so in a remote learning environment.

As a matter of fact, the use of ICT in education is not new in Malaysia. It has been included in the education plan since 2006 (International Bureau of Education, 2007). Furthermore, it has been further emphasized in the Malaysia Education Blueprint 2013-2025 (Ministry of Education Malaysia, 2013). To explain, shift 7 of the blueprint focuses on leveraging ICT to scale up the learning quality across the nation. This reveals that the use of ICT in Malaysia's education has been well sought after by the government and the stakeholders, especially under the influence of the COVID-19 pandemic.

Out of all the schools in Malaysia, Chinese Independent High Schools have integrated ICT in education as early as 2008 with the use of Moodle (United Chinese School Committees' Association of Malaysia, n.d.). Teachers were encouraged to utilize technology tools that are readily available in classrooms, such as projectors or televisions together with the materials provided in Moodle to conduct lessons. However, the platform was used during the pre-pandemic period and the materials were only accessible by teachers, not students. As a response to the emergency remote teaching, the United Chinese School Committees' Association of Malaysia (Dong Zong) has shut down the Moodle platform and shifted to an enhanced internet platform known as Dong Zong E-Learning. The new platform allows for autonomous learning among students where it is readily accessible anytime and anywhere with more integrated use of ICT. This provides students with the authority to take charge of their learning according to their preferred pace.

Coincidentally, experts have stated that the learning preference of the current generation of students is different from previous generations. They prefer hands-on and autonomous learning with the use of ICT instead of the traditional teacher-centred classroom

(Hussin, 2018). With that, it can be seen that the current emergency remote teaching method suits them better in the sense of self-regulated learning. At the same time, the students affected by the emergency remote teaching in both primary and secondary levels were born into the digital natives' era. This means that they were born into a world filled with technology and are familiar with its use since young. Hence, it is easy for students to adapt to the use of ICT in education in emergency remote teaching. However, the same cannot be said to the teachers as they need time to be equipped and ready to face the integration. It is important to realize that emergency remote teaching and remote learning are different in that emergency remote teaching came at a very unexpected time. The whole pandemic hit in the midst of a teaching term, so it does not provide the advantage of time for teachers to be ready.

In addition, teachers in Malaysia are said to be ill-equipped with ICT tools and skills to face emergency remote teaching (Education International, 2020). This further expresses the problem of unready teachers facing the use of ICT in teaching. Uniquely, research has also found that when teachers carry low self-efficacy, it affects their teaching and reflects on the student's achievement (Woolfolk et al., 1990). To explain, self-efficacy refers to a person's own perception of their competency in tackling a specific task effectively (Woolfolk, 2019). In other words, a teacher's self-efficacy refers to their belief on whether they can help students learn in any type of situation. And according to Albert Bandura's self-efficacy theory, physiological arousal which is one's own sense of readiness is one of the main sources of self-efficacy (Bandura, 1977). Given these points, teachers' readiness in the use of ICT during the emergency remote teaching situation is an important aspect to be discovered, as it is closely related to the teacher's self-efficacy.

1.2 Problem Statement

Remote learning is not new in Malaysia as it has been implemented in tertiary education. Specifically, the introduction of open distance learning courses in universities and colleges had incorporated the use of ICT in remote learning (Lim et al., 2020). Yet, Malaysian primary and secondary schools do not have experience with remote learning prior to the pandemic. The teacher's readiness for ICT use in teaching is questionable in an emergency remote teaching situation. This is because teachers do not have prior experience with remote learning. They are also not given any amount of time to be prepared with the skills or tools needed.

Besides that, most of the existing studies done on Malaysian teacher's readiness during emergency remote teaching investigate government school or tertiary education (AlSaqqaf & Hu, 2021; Lasi, 2021; Lim et al., 2020; Ling et al., 2021; Mansor et al., 2021; Rashid et al., 2021). There are limited studies done on Chinese Independent High School (CIHS). On an important note, CIHS face a different set of challenges as compared to government schools. Reason being all the CIHS in Malaysia are self-funded schools as a result of the 1960 Rahman Talib Report and the 1961 Education Act (Raman & Tan, 2015). With the lack of funding means that CIHS have limited resources for implementing the use of ICT in teaching and learning. For example, there are disparities in infrastructure in schools, a lack of skilled teachers and professional technicians to handle any ICT-related problems (United Chinese School Committees' Association of Malaysia [Dong Zong], 2018). Interestingly, CIHS has seen an increase in student population over the decade, despite not being funded or formally recognized by the Malaysian education system (Ong et al., 2020). This makes CIHS stand out from other schools in terms of resources which calls for the need to investigate the teacher's readiness and challenges faced when implementing the use of ICT in emergency remote teaching.

On the other hand, it has been reported that there is a poor level of digital inclusion in Malaysia which creates a huge digital gap (Lee, 2021). To put it another way, not all areas in Malaysia are well equipped with basic infrastructures for remote learning. As an example, the Sarawak Teachers' Union (STU) has expressed concerns about poor internet connectivity issues, and financial incapability to handle emergency remote teaching (Education International, 2020). Another example that went viral in June 2020 was the experience of a Sabah student who stayed on a tree for 24 hours to get good internet connectivity for an exam (Lee, 2020). Although the effectiveness of ICT usage during emergency remote teaching has been well recognized in the research field (Azar & Tan, 2020; Yusoff & Marzaini, 2021), it is evident that the digital gap issue poses many challenges for teachers to implement the use of ICT in teaching effectively. Despite the effectiveness proven, the question of what challenges do teachers face seem to be at hand in order for teachers to implement it in reality.

1.3 Research Objectives

Based on the problems stated above, this research investigates Chinese Independent High School English teachers' readiness and challenges in using ICT during COVID-19. Therefore, this study aims to:

i. investigate Chinese Independent High School English teachers' readiness to use ICT in emergency remote teaching.
ii. identify the challenges of ICT use for Chinese Independent High School English teachers in emergency remote teaching.

1.4 Research Questions

According to the objectives, this research study is designed to answer the following research questions:

i. What are the Chinese Independent High School English teachers' readiness levels for ICT use in emergency remote teaching?
ii. What are the challenges faced by Chinese Independent High School English teachers with the use of ICT during emergency remote teaching?

1.5 Significance of the Study

The findings of this study would provide an insight into Chinese Independent High School (CIHS) teachers' readiness to implement ICT in teaching English. Considering that there are limited studies done on CIHS teachers' readiness, this study would help to inform data from the Chinese teacher's perspective. As has been pointed out with Bandura's self-efficacy theory, looking at teachers' readiness would ensure the level of effectiveness of the current pedagogy.

Additionally, the data collected may be used to inform stakeholders on the challenges faced by CIHS teachers in implementing ICT. The relevant authorities such as school leaders, policymakers, and Dong Zong may use this study as a reference to evaluate and review the current pedagogy. As many studies have found ICT to be effective in teaching, coupled with the challenges pointed out from this study, necessary alterations can be made so that the potential of ICT in language teaching can be maximized.

Next, it is also anticipated that this research would reveal what is lacking in the current situation. Hence, providing relevant needs to increase teachers' readiness to face the use of ICT in the classrooms. These may also help prepare teachers for post-pandemic changes that are

about to come. As with the recovery of the nation, schools may not fully return to a traditional classroom immediately after the pandemic. This can be observed with the current recovery methods in the pandemic situation where a mix of remote and physical lessons are being conducted. Thus, there is a possibility for ICT to stay in the classroom while being integrated into the traditional classroom.

1.6 Limitations

This study is without its limitations and constraints. Firstly, there was time constraint to this study. As the study adopts a mixed-method design which includes a survey questionnaire and interviews, it was a challenge to reach more participants in 14 weeks. Secondly, the resources included in this research were limited. As this research was performed in the midst of the COVID-19 pandemic, there were certain standard operating procedures to adhere to. With that being said, resources are being limited whereby physical resources such as hard copy books are out of reach. Inter-district and inter-state travelling was also impermissible, so the sample size was limited in size and location. Thirdly, this study only investigated the teacher's readiness and challenges faced. However, the possible solutions to overcome the challenges mentioned were not included. Lastly, this study is limited in terms of the demographic differences of the sample size. As the study is performed exclusively in only one state in East Malaysia, the findings may not apply to the whole population of Chinese Independent High School's teachers in Malaysia. This is especially important as the demographics in East Malaysia and West Malaysia bear differences in terms of socioeconomic status and technology development.

1.7 Summary

This chapter proposed the researcher's intention to investigate the use of ICT in Chinese Independent High School during COVID-19. This research mainly focused on the teachers' level of readiness and challenges faced with the implementation. Given these points, this chapter discussed the background of the study in the aspect of technology, emergency remote teaching in the COVID-19 pandemic, and the use of ICT in education. Then, the problem statement was discussed alongside a few proposed research objectives and research questions. Accordingly, the significance and limitations of the research were being reviewed. The next chapter reviews the existing literature done on the related fields of the topic.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter, literatures related to the use of ICT in English language teaching are being reviewed. It begins with defining the term "ICT" which is then followed by an exploration into the situation of English Language teaching in Malaysia and the use of ICT in education. Then, a specific outlook to the use of ICT in English language teaching is being discovered through the aspect of student and teacher's readiness during online English teaching. Accordingly, the theoretical framework that relates to the topic is being highlighted. Specifically, the self-efficacy theory and the Technology Acceptance Model are included. Finally, previous studies relating to this field of study are being reviewed.

2.2 Definition of ICT

ICT is an abbreviation for Information and Communication Technologies, a term which as the name suggests, comes from the technology field. In fact, the term ICT is a branch from the word "Information Technology" which is defined as a technology process that deals with storing, organizing, distributing, creating, and using information (Hamidi et al., 2011; Mallika et al., 2018). Similarly, ICT is generally defined as information processing through various means of telecommunication (Ratheeswari, 2018). The differences lie in the focus of ICT in communication tools as compared to IT which covers a broader area of technology. Telecommunication mediums include the internet, mobile phone, computer, teleconferencing platforms as well as social networking sites.

Following the constant development of technology, ICT is seemingly common and it impacts various fields in different manners. The main reason for the widespread use of ICT is

because of its advantages like increasing productivity with less workforce and time consumed. Correspondingly, experts of each field have attempted to research and construct operational definitions for ICT that is relevant to each field individually. For instance, ICT is being applied in education, agriculture, medicine, military, government, finance, transport, business and more (Mallika et al., 2018). Due to this, it has been said that there is no single definition for ICT that is universal (Sharmila, 2019).

With regards to the education field, the United Nations Educational, Scientific and Cultural Organization defined ICT as a varied set of technological tools for information processing and communication purposes (Tinio, 2003). The varied set of technological tools have also been listed out in detail as shown in Table 1 below (UNESCO Institute for Statistics, 2009). To put into context, the operational definition of ICT in this study refers to the use of electronic gadgets (mobile phones, computers, tablets, and projectors), the Internet (World Wide Web and social media), software, teleconferencing as well as learning management systems to communicate and exchange information in the teaching and learning process. As education deals with teaching and learning, the information contained in the digital tools would represent the knowledge involved.

Table 1

Categorization of Technological Tools by UNESCO

Category	Technological Tools Involved
Computers	
The Internet	websites, blogs, and emails
Live broadcasting technologies	radio, television, and webcasting
Recorded broadcasting technologies	podcasting, audio and video players, and storage devices
Telephony	fixed or mobile, satellite, Visio/video-conferencing

2.3 English Language Teaching in Malaysia

English has always been a huge part of Malaysia, especially since the country was colonized by the British from which English schools were first established in 1816 (Shanmugavelu et al., 2020). The English language found its roots in Malaysia through education from the British colonial era. Following this, the status of the English language was retained in Malaysia through the 1967 National Language Act which labelled English as the second most important language (Azmi, 2013). In fact, English is taught as a second language in Malaysia despite it not being the national language.

The Ministry of Education has included various efforts for English language teaching (ELT). Firstly, English is set as a compulsory subject for all levels of education especially in the 11 years of compulsory education in Malaysia (Darmi & Albion, 2013). Next, the Malaysia Education Blueprint 2013-2025 emphasizes on improving the English language proficiency in Shift 2 (Ministry of Education Malaysia, 2013). It includes making English a compulsory pass subject in the national exam. Significantly, the Common European Framework of References (CEFR) was introduced into the English curriculum for primary and secondary levels in 2016 (Sidhu et al., 2018). The CEFR framework brings the English curriculum to a higher level as it is an international standard. Undoubtedly, these efforts portray the importance of ELT in Malaysia.

For decades, scholars have proposed numerous teaching approaches and methods for English as a second language. Particularly in Malaysia, the main focus of English education is placed on communicative competence. This can be seen through the implementation of the Communicative Language Teaching (CLT) approach in Malaysia since 1974 (Richards, 2002, as cited in Darmi & Albion, 2013). To enumerate, the foundation of the CLT approach is on the actual use of language for interactions and communications. Hence, ELT in Malaysia concerns the four basic language skills of reading, writing, speaking, and listening, while

assessing the learner's needs to use the language in real life for communicative purposes. Given these points, it can be assumed that the ELT in Malaysia takes on a practical view. As a matter of fact, the aforementioned efforts and approach match the needs of Malaysia as it is a multicultural country where language plays a huge role in daily communication.

2.4 Educational Technology

In recent years, the popular use of technology in education has introduced a new field to the research discipline which is otherwise known as Educational Technology (EduTech). Looking back in time, the rise of this research area stems from the emergence of the industrial revolution (IR). Specifically, the fourth IR gave attention to the use of technology in Education 4.0 (Aggraeni, 2018, as cited in Taib & Awang, 2020). With that, it can be said that the development of EduTech is affected by the IRs. Similarly, the revolution of the Word Wide Web also brought an impact to the development of EduTech as it changed the way technology is being used (Salmon, 2019).

Table 2 outlines the phases of IR, World Wide Web, and Educational Technology and further sequenced according to the year or generation as well as the descriptors involved (Karim et al., 2018; Maria et al., 2018; Moravec, 2008; Salmon, 2019; Sharma, 2019). As observed in Table 2, all three areas share a similarity that is they are being separated into four phases each. Driven by this similarity, scholars have claimed that IR brought about the phases of EduTech (Anand, 2020; Salmon, 2019; Sharma, 2019; Taib & Awang, 2020). On the other hand, certain scholars claim that the World Wide Web revolution aligns with the development of EduTech (Maria et al., 2018; Salmon, 2019).

Table 2

Phases of Industrial Revolution, World Wide Web, and Educational Technology

Phase	Year/Generation	Descriptors
Industrial Revolution (IR)		
IR 1.0	1765	Mechanization
IR 2.0	1870	Electrification
IR 3.0	1969	Automation
IR 4.0	2020	Digitalization
World Wide Web		
Web 1.0	1994	Transmissive
Web 2.0	2004	Social
Web 3.0	2006	Semantic Web
Web 4.0	2020	Symbiotic Web
Educational Technology		
Education 1.0	Digital Refugees	Memorization
Education 2.0	Digital Immigrants	Internet-enabled Learning
Education 3.0	Digital Universe	Knowledge-producing
Education 4.0	Digital Natives	Innovation-producing

2.4.1 Industrial Revolution and Educational Technology

Looking into the phases of IR, the development of technology in each phase leads to a certain level of change to the way education is being delivered. Starting with the first IR, the focus was placed on mechanization which refers to the production of machines for water and steam power (Maria et al., 2018). Salmon (2019) stated that mechanization revealed to humans that machines can perform better than humans in certain aspects. From then on, compulsory education was given importance for humans to better themselves. Thus, it can be said that the technology aspect of IR 1.0 has not brought any significant change to the revolution of EduTech. The change was only brought forth in the following phase.

The next phase, which is IR 2.0 was driven by electrification where mass production began through the use of electricity (Maria et al., 2018). Fellow researcher Salmon (2019)

believes that the mass production in IR 2.0 brought forth mass education to meet the needs of manpower and talents in the industry. So, teaching is being done in a large classroom with memorization methods and standardized schools. Similarly, Education 1.0 begins with the development of formal schools as well as the focus on memorization education (Anand, 2020; Karim et al., 2018). To point out, electrification also invented the printing press technology during IR 2.0 (Saxena & Bhat 2017, as cited in Taib & Awang, 2020). With that comes the change of the way knowledge was being distributed in Education 1.0. Instead of teachers being the information provider, information is now provided through the printing of books (Bongomin et al., 2020). From these, it is evident that IR 2.0 is the official beginning of Education 1.0.

Moving to the third phase, IR 3.0 brought an even drastic change to the revolution of EduTech. During IR 3.0, digital automation was introduced and production was done through the use of electronics and information technology (Sharma, 2019). It allows for the emergence of internet-enabled learning in EduTech, which brought the Education 2.0 era to light. On the other hand, IR 3.0 has also led to the creation of technology platforms for teaching and learning during Education 3.0 (Anand, 2020). As the term "information technology" suggests, information is transformed into open-source materials while textbooks are transferred from hard copy prints into e-books and educational websites (Bongomin et al., 2020; Maria et al., 2018). In Education 3.0, the impact of IR 3.0 encourages the use of technology to produce and transfer knowledge. Therefore, many technology mediums are used in teaching.

Later, the next phase of IR 4.0 centres around digitalization and highlights the man-machine and machine-machine interaction by enhancing the technology focused in previous phases (Anand, 2020; Maria et al., 2018). Namely, mechanization, electrification, and automation. As a response to IR 4.0, the EduTech revolution progressed towards Education 4.0 which highlights innovation. At this phase, a technology-driven and data-driven environment

is used in teaching and learning. Therefore, innovative production is needed compared to standardized education. Scholars have also pointed out that the use of ICT began in Education 4.0 due to the digitalization approach of IR 4.0 (Taib & Awang, 2020).

2.4.2 World Wide Web and Educational Technology

The revolution of the World Wide Web also brought impacts to the phases of EduTech, especially in terms of teaching methods and the inclusion of technology tools. Starting with the first phase, which is known as Web 1.0, it applies a transmissive approach where the web is only an information provider (Hiremath & Kenchakkanavar, 2016; Salmon, 2019). In other words, it is a static one-way process where users only consume the information and interaction does not exist. This produces Education 1.0 where technology is not used in the classroom but only act as a source of extra information to teachers (Maria et al., 2018). Due to this, the users of technology in Education 1.0 are believed to be of the digital refugees' generation (Moravec, 2008).

In contrast to Web 1.0, the interaction element was included in Web 2.0 through the introduction of read and write method (Maria et al., 2018). This brings forth the social web where many social networking sites were introduced for communication and interaction purposes (Hiremath & Kenchakkanavar, 2016). New technological mediums were introduced in this era, such as podcasts, blogs, email, wikis, and more. The social aspect of Web 2.0 gave life to Education 2.0 where internet-enabled learning was performed. To be specific, blended learning was introduced to the EduTech field (Maria et al., 2018). To perform blended learning and utilize the technology mediums, electronic gadgets were needed. From then, the people involved in Education 2.0 were of the digital immigrants' generation where the users are slowly adapting to the tools (Moravec, 2008). These have also proven that the use of ICT began to be prominent in the EduTech field since Education 2.0.

The emergence of Web 3.0 links to a semantic web, which means that the web involves the record and use of data recorded by machines (Salmon, 2019). Then, the data would be capable of interacting with one another to suit the user's needs. On top of the social aspect in the previous phase, the web would be tailored according to each user and put context into consideration. Significantly, the combination of social and context aspects brought to light the possibility of a virtual learning concept in Education 3.0 (Maria et al., 2018). It is known as Massive Open Online Courses (MOOC). In order to learn in a fully virtual environment, the teachers and learners must have access to the web anywhere at any time. Moravec (2008) refers to this group of users as the digital universe who can reach technology everywhere.

Moving to the next phase of the World Wide Web development is Web 4.0. It is being labelled as the symbiotic web which involves the combined interaction of human intelligence and artificial intelligence (Salmon, 2019). These characteristics impacted the EduTech field and introduced Education 4.0 with teaching methods like gamification (Taib & Awang, 2020). Uniquely, the generation of the Education 4.0 era is mainly of Generation Z which is also known as the digital natives (Anand, 2020). The users are mainly born into a digital era where familiarity with technology is high, and this level of technical capability is needed to perform gamification in education.

2.4.3 ICT in Education

Following the exploration of IR, the World Wide Web, and EduTech and its relation in phases, it can be assumed that the education revolution phases align with the World Wide Web's development directly. However, IR still plays a role in pushing for the emergence of EduTech. Scholars continuously explore the future evolution of education and recent research has also(Yunus, 2007) suggested the emergence of the fifth phase in EduTech - Education 5.0 (Taib & Awang, 2020), but it has yet to be formally established. Consequently, the exploration above reveals that the most prominent appearance of ICT in education is said to be during IR

4.0 and Web 2.0. Referring to Table 2, the timeline of these phases is between 2004-2020. With these, it can be concluded that the use of ICT in education only emerged in the 21st century and ICT has a huge role to play in delivering education according to the development of technology.

With regards to its use, research has given attention to various topics. As early as 2003, UNESCO has already previewed the trends, issues, and prospects of ICT in education (Pelgrum & Law, 2003). To point out, the study entails the situation around the world. It has been pointed out that developed countries which have successfully implemented ICT in education, lacked a structured curriculum. On the other hand, countries that were at the early stage of implementation lacked infrastructure and policies. This implies that the early research done on ICT in education focuses more on the elements related to its implementation in teaching.

In the years that follow, the most common usage of ICT in education revolves around e-learning, blended learning, and open distance learning as resources are all stored in the cloud (Mallika et al., 2018). Therefore, the research focus turned towards the actual implementation by putting context into consideration. Particularly in the research area within Malaysia, researchers have explored the use of ICT in education across various subjects and programs, such as English, literature, science, and mathematics. (Ahmad, 2013; Hasin & Nasir, 2021; Yunus, 2007; Yunus & Suliman, 2014; Zakaria & Khalid, 2016). Uniquely, these studies unanimously and explicitly agreed that ICT is a useful tool that facilitates the teaching and learning process regardless of context. Out of the studies mentioned, English came to be one of the earliest research done in Malaysia by Yunus (2007). Yet, many questions are raised although ICT in education has been an area that is being researched for more than a decade. This comes from the trend of technology that is always innovating.

2.5 ICT in English Language Teaching

Nowadays, ICT has become a part of a new teaching method in English language teaching (ELT). In fact, ICT has been included in the school curriculum for certain countries like Malaysia as outlined in the Malaysian Education Blueprint 2013-2025 (Ministry of Education Malaysia, 2013). This comes from the need for communicative competency and a student-centred approach in language teaching. Coincidentally, the C in ICT which refers to the communicative aspect matches these needs. The use of ICT as an ELT pedagogy also emerged from its similarities to existing teaching methods. To enumerate, using ICT for teaching and learning carries the cooperative aspect into the classroom, and it supports the Cooperative Language Learning approach (Gilakjani, 2017). Hence, ICT acts as a support and facilitator for ELT.

The aforementioned researches revolve around the use of ICT in a language classroom as well as its role in teaching methods and approaches. However, they were of the pre-pandemic period where ICT was only integrated occasionally or optionally. Stojković (2019) mentioned that the use of ICT in teaching should be done routinely and with a systematic approach. Therefore, the research field diverted back to certain topic areas of the early studies regarding ICT in education when the pandemic began. Current research gives importance to teachers' readiness and the challenges faced in implementing ICT in language teaching. This is because teachers carry the main role of bringing ICT into the classroom (Gilakjani, 2017).

2.5.1 Student's Readiness for The Use of ICT During Online English Learning

One of the earliest emergences of the concept of readiness for online learning came from fellow scholars Warner et al. (1988, as cited in Zou et al., 2021). They defined the concept according to three aspects: students' choice for delivery methods other than face-to-face teaching methods, students' proficiency and self-belief with the use of ICT as well as their ability to undertake autonomous learning. Subsequently, scholars have suggested other

indicators to measure online learning readiness. Among which Hung et al. (2010) present a conceptual framework to measure the level of readiness through five indicators, namely, self-directed learning, motivation, learner control, self-efficacy for computer and internet, as well as self-efficacy for computer-mediated communication. Both definitions bear similarities in that the student's own perception of their ability as well as the aspect of autonomous learning is included. The latter framework included aspects related to the advantages of ICT usage in education. For instance, ICT is known to motivate students to engage in learning both intrinsically and extrinsically (Hung et al., 2010; Tinio, 2003). As for learner control, it refers to the learners' freedom to determine their own learning pace, process, and environment (Hung et al., 2010). This is what Mallika et al. (2018) refer to as self-learning that occurs anytime and anywhere.

To put things into context, online language learning is told to differ from the experiences of other subjects or programs (Zou et al., 2021). This is because the medium of instruction already applies the content of the subject during the lesson itself, which most often refers to the four basic language skills. With that, the entire learning process not only concerns the syllabus content, but also the interactions and delivery method of the lesson as a whole.

Out of all the indicators, self-efficacy has been found to play a bigger role in determining students' readiness for online English learning (Hamzah et al., 2021). This is because a negative outlook brings out the pessimistic perspective of students despite being ready in terms of proficiency with ICT and self-directed learning.

In terms of the readiness level of students for online English learning, preliminary studies done during the pre-pandemic period reported high levels of readiness (Paturusi et al., 2015; Zulkifli et al., 2019). Yet, the studies done during the pandemic yielded a different result from students. Chung et al. (2020) found that students' level of readiness only reached a slight to moderate level. This is similar to Widodo et al. (2020) and Meladina & Zaswita's (2020)

studies which found a low level of readiness. From here, it can be seen that expectations and reality do not match which further shows that context plays an important role in producing significant results.

2.5.2 Teacher's Readiness for The Use of ICT During Online English Teaching

As mentioned above, teachers carry an active role in the language classroom. Coupled with the impact of teacher's readiness on the success level of a subject or program (Hoppe, 2015, as cited in Zou et al., 2021), teacher readiness is an important area to be investigated. The measurement of readiness for English language teachers contrasts with students as the roles held are different. For teachers, readiness is not just based on proficiency in technology, but also on pedagogy knowledge (Clark-Ibanez & Scott, 2008, as cited in Lasi, 2021). With that, Yew & Tan (2020) outlined three main factors that affect teachers' readiness which are teachers' ICT competence, infrastructure and online resources, as well as the working environment. Similarly, Zou et al.'s (2021) research segregate the measurement of teacher readiness for online English teaching into pedagogical, technical, and lifestyle readiness.

In terms of ICT competence and resources, the Technological Pedagogical Content Knowledge (TPACK) model covers three areas of knowledge that determines both areas (Yew & Tan, 2020). As the name suggests, it includes technological knowledge, pedagogical knowledge, and content knowledge. In fact, the TPACK model was widely used in research (Aniq & Drajati, 2019; Ghazali, 2020; Li, 2021; Ling et al., 2021; Yew & Tan, 2020). To explain, Gellerstedt et al. (2018) explain that this model takes on an integrated view to the three areas of knowledge which makes it a useful model at the conceptual level. However, the TPACK model did not account for the lifestyle aspect which brings in sociocultural context into the study.

Early studies done during the pre-pandemic period has found that teachers are moderately ready for ICT use in teaching (Al-Awidi & Aldhafeeri, 2017; Kumar et al., 2008; Singh & Chan, 2014). Interestingly, these studies also called for actions from the stakeholders to improve the infrastructure, policies, and technology competency of teachers in order to increase the level of readiness. For the situation of English language teaching during the pandemic period, teachers' readiness level for ICT use ranged from moderately to highly ready (AlSaqqaf & Hu, 2021; Ling et al., 2021; Zou et al., 2021). In sum, the findings during pre-pandemic and during pandemic times were slightly similar but the teachers began to have higher levels of readiness during the full implementation.

2.6 Theoretical Framework

2.6.1 Self-Efficacy Theory

The self-efficacy theory is founded by fellow psychologist, Albert Bandura as a branch under his social learning theory of behavioural change (Bandura, 1977). He defined this concept as one's belief in their own abilities in organizing and carrying out necessary steps to achieve the desired goals (Bandura, 1997, as cited in Woolfolk, 2019). Uniquely, the concept of self-efficacy is said to be dependent on the context of a subject, task, or role (Woolfolk, 2019). So, there is a need to place this concept in the light of education for the purpose of this study. In the context of teaching, Caprara et al. (2006, as cited in Barni et al., 2019) defined self-efficacy as "a teacher's belief in his/her ability to successfully cope with tasks, obligations, and challenges related to his/her professional role" (p.2). In other words, self-efficacy is a person's confidence about their own capabilities to perform successfully. It entails the questions "Can I do this?" or "Will I succeed or fail?".

To explain the self-efficacy theory, Bandura (1977) has put forth four main sources of self-efficacy. First of all, performance accomplishments are the direct source where the personal mastery experiences help to interpret one's self-efficacy level for the desired task. This means that if one had a successful experience, it would increase their confidence and vice versa. Contrastively, vicarious experience is an indirect source for self-efficacy where one observes another person's experience to measure their own sense of belief in their ability. Through observation and internalization of others' experiences would help one reflect on themselves and alter their beliefs. Thirdly, verbal persuasion refers to an external source where encouragement, feedback, or praise affects one's perception of their ability. The last source of self-efficacy comes from physiological arousal. It concerns the feelings a person produces before performing the task and a positive feeling of readiness increases one's self-efficacy level while negative feelings like anxiety decrease it.

As it is being stated that self-efficacy influences one's feelings, thoughts, and behaviour in performing a task (Bandura, 1994, as cited in Krause et al., 2017), it is important for teachers to attain an appropriate level of self-efficacy in teaching. In fact, studies have found that a higher level of self-efficacy leads to higher job satisfaction (Türkoğlu et al., 2017). That way, self-efficacy provides teachers with a driving force to be committed to teaching which in turn would increase the effectiveness of their teaching methods. This would then lead to higher academic achievements from the students. As a result, self-efficacy plays an important role in education. Its role is even more emphasised during the emergency remote teaching situation where new teaching methods such as the use of ICT come into play. This is because, during the emergence of Educational Technology (EduTech), in-service teachers were not trained and equipped with technological skills (Yew & Tan, 2020). Thus, the self-efficacy theory links with the level of readiness a teacher have in order to be confident in delivering an effective online lesson.

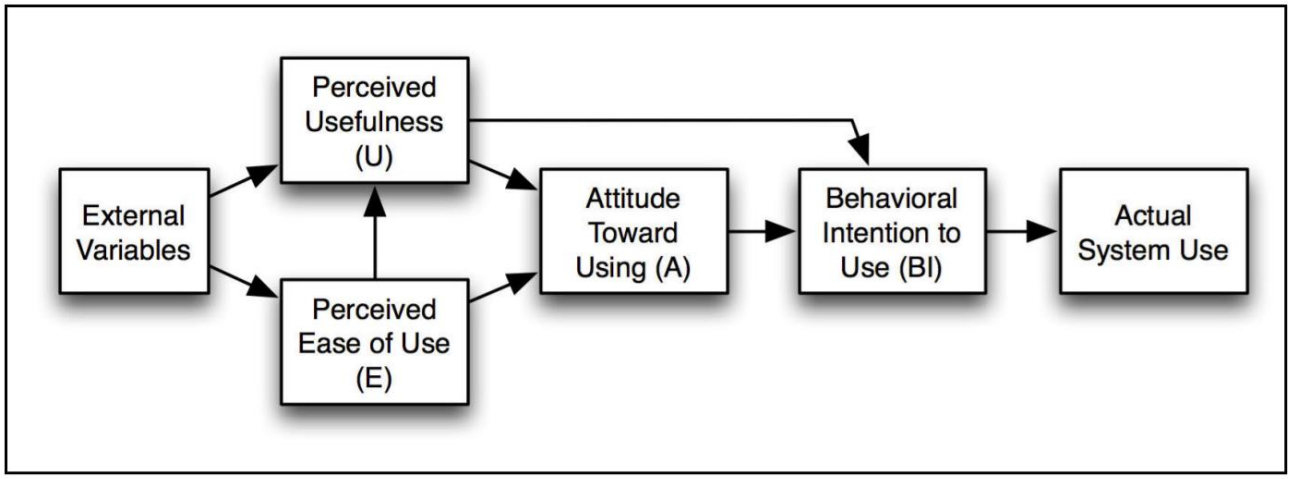
2.6.2 Technology Acceptance Model

Another model that relates to human behaviour and is established based on the self-efficacy theory is the Technology Acceptance Model (TAM). This model was proposed by Fred Davis in the information systems field (Davis, 1989) which covers the attitudes and beliefs for a person's intention and acceptance towards the use of technology. Two variables that influence such intentions are "perceived usefulness" and "perceived ease of use". To define, the former refers to the extent of a person's belief that implementing technology will enhance one's performance; while the latter refers to the extent of a person's belief that implementing technology is easy.

The TAM model has been a leading model used to investigate the readiness level for the field of EduTech and has been acknowledged worldwide as a solid model for the purpose (Zou et al., 2021). A systematic review done on 71 studies has also proven this point and further identified that perceived usefulness plays a major role in the use of EduTech as compared to perceived ease of use (Granić & Marangunić, 2019). Significantly, the studies included were all between 2003 to 2018, which signifies the pre-pandemic period. But the previous studies done are not confined to the use of EduTech in physical classrooms only, but also in virtual e-learning environments (Salloum et al., 2019). Regardless, the two variables of TAM are linked with teachers' attitudes towards technology and the behavioural intention to use it in actual teaching (Figure 1). It then measures the readiness level of teachers with regards to the actual use of ICT in online English teaching. Given these points, this study is mainly based on the TAM framework.

Figure 1

Technology Acceptance Model



Note. Adopted from "Exploring students' acceptance of e-learning through the development of a comprehensive technology acceptance model" by S. A. Salloum, A. Q. M. Alhamad, M. Al-Emran, A. A. Monem, and K. Shaalan, 2019, *IEEE Access*, *7*. (http://dx.doi.org/10.1109/ACCESS.2019.2939467). CC BY 4.0.

2.7 Previous Studies

Various studies concerning online English teaching have been done since the emergence of Educational Technology (Lasi, 2021). However, with the Covid-19 pandemic that brought about a full online teaching method, recent researches are found to be focusing on teachers' readiness (AlSaqqaf & Hu, 2021; Ling et al., 2021; Zou et al., 2021). Moreover, a few studies have also highlighted the challenges faced by English teachers in an emergency remote teaching environment (Junaidi & Hashim, 2021; Lukas & Yunus, 2021; Zou et al., 2021). As the pandemic situation is relatively new, it is equally important to identify specific issues faced by teacher's that may help improve the teacher's readiness level.

2.7.1 Teacher's Readiness

According to Zou et al. (2021), college English teachers are found to be moderately ready for online English teaching during the pandemic. Interestingly, studies done on primary and secondary schools reported that teachers attain a high level of readiness (AlSaqqaf & Hu, 2021; Ling et al., 2021). The differences in the readiness level may lie in the fact that the demographics of the studies are different. To enumerate, the college English teachers are teaching English as a foreign language in China, while the primary and secondary school teachers are English as second language teachers in Malaysia.

Despite a slight difference in readiness level, these studies have pointed out that English teachers are most ready in the technical aspect. This was commonly found through the use of a quantitative survey method across all three studies where mean scores are being presented. To point out, college teachers have higher technical and pedagogical readiness levels than lifestyle readiness (Zou et al., 2021). At the same time, the study done on primary school found teachers to be ready in all three aspects of technology knowledge, technology skills, and emotional affective (Ling et al., 2021). Although AlSaqqaf & Hu (2021) did not specify the teacher's teaching level, it was mentioned that participants are from government schools which would represent both public primary and secondary schools. So, it can be understood that both primary and secondary school English teachers are especially ready in terms of technological readiness.

2.7.2 Challenges

Moving towards the studies done on the challenges, Zou et al. (2021) found that the biggest challenge is related to pedagogy where student engagement is tough to maintain. Similarly, another study reported that classroom management was the toughest part to handle (Lukas & Yunus, 2021). It was further specified that the remote teaching situation made it hard

to keep track of students' participation in the lesson and to conduct assessments that produce authentic results. Significantly, both studies utilized a qualitative method to investigate the challenges. With these, classroom management could be recognized as the main challenge faced by English teachers in the emergency remote teaching situation.

On the other hand, lack of technical support and the unreadiness of teachers in adapting to the new delivery method were identified as some of the main challenges faced (Junaidi & Hashim, 2021; Lukas & Yunus, 2021). Evidently, these points contradict with the findings of teachers' readiness in Malaysia. However, one of the studies revealed that majority of the participants were from rural areas (Lukas & Yunus, 2021).

2.8 Present Study

Following the past studies reviewed above, they most likely account for the emergency remote teaching of English on a general level. Moreover, the contradicting findings show the importance of a consistent context and demographics to investigate the teacher's level of readiness and challenges faced. Another point to note about all of the aforementioned studies is that they did not look into the use of ICT specifically, but only on the emergency remote teaching of the English language as a whole. With that in mind, the present study further explores the level of English teachers' readiness and challenges faced with regards to the use of ICT in emergency remote teaching. As private schools were not included in previous studies mentioned above, this study would emphasise on secondary school teachers from Chinese Independent High School. To put it in another way, it would add significant information to the research field regarding teachers' readiness and challenges in emergency remote teaching of English.

2.9 Summary

This chapter has presented the definition of ICT, English language teaching in Malaysia, ICT in education as well as ICT in English language teaching. Then, it also highlights the related theories and previous studies in related fields. The following chapter will introduce the methodology used to evaluate this study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will introduce the methodology employed in this research which focuses on the teacher's readiness and challenges faced with the use of ICT. It will also discuss the research design, followed by justifications of the samples and instruments involved. Then, the data collection and analysis techniques are being explained.

3.2 Research Design

This study employs a mixed-method research design where both quantitative and qualitative methods are included. This design is appropriate to this study as it answers the research questions through both numerical and narrative data. To explain, the numerical data comes from a survey questionnaire while the narrative data comes from an interview. The suitability comes from the fact that a mixed-method design strengthens the credibility of the study, as the results obtained from both methods support one another (Şahin & Öztürk, 2019). This is achieved in the sense that numerical data illustrates a definitive view of the findings, while narrative data provides rich insight into the findings by putting context into consideration. To put it in another way, the use of both quantitative and qualitative methods allows for a comprehensive view of the research problem. With that, the mixed-method research design has been adopted for the researcher to gain a deeper insight into the level of readiness and challenges faced by teachers in using ICT.

3.3 Sample

For the purpose of this study, the participants of this research were 27 English teachers who are currently teaching in Chinese Independent High School (CIHS) from Sarawak, Malaysia. With the time constraints of this study, the number of participants is limited to only a small number. Additionally, there are no age range or gender limits to the study as they are not variables that are focused on in this study.

In terms of the sampling method, the participants were selected through purposive sampling. According to Maxwell (1996, as cited in Taherdoost, 2016), purposive sampling is a method where the researcher intentionally selects a particular set of samples to gain findings that cannot be taken from other sources. The reason for this method is that this study targets the experience of a Chinese school setting, where there is less exposure to English as compared to other types of schools. It is undeniable that the purposive sampling method generates a certain level of biasness from the researcher. However, it helps to generalize the results with justifications, provided that the data is being analyzed in a theoretical, analytical or logical manner (Sharma, 2017). Therefore, some pre-requisites are set to achieve the target of this study. The participants must be in-service teachers from CIHS who has experienced emergency remote teaching during the pandemic. Furthermore, purposive sampling helps to save time for the researcher as all the participants would have fulfilled the requirements before participating in the study. With that, there is no filtering process required to remove void responses from ineligible participants.

3.3.1 Demographic Background

The participants recruited in this study are of different generations, ranging from millennials to boomers. As observed in Table 3 below, the youngest participant is 24 while the oldest is 68 years old. In fact, majority of the participants are from the millennial era with 63% out of the total number of participants. Furthermore, there are more female than male respondents with 66.7% and 33.3% respectively. In terms of educational background, most of the participants have obtained a bachelor's degree as the highest educational level, which is then followed by masters and diploma. Out of all, high school has the least number of participants. Similarly, teaching experience also has a wide range, from 0.4 years (5 months) to 43 years. In terms of the district representation within Sarawak, most of the respondents came from Kuching district while Sibu and Miri is the second highest (Figure 2).

Table 3

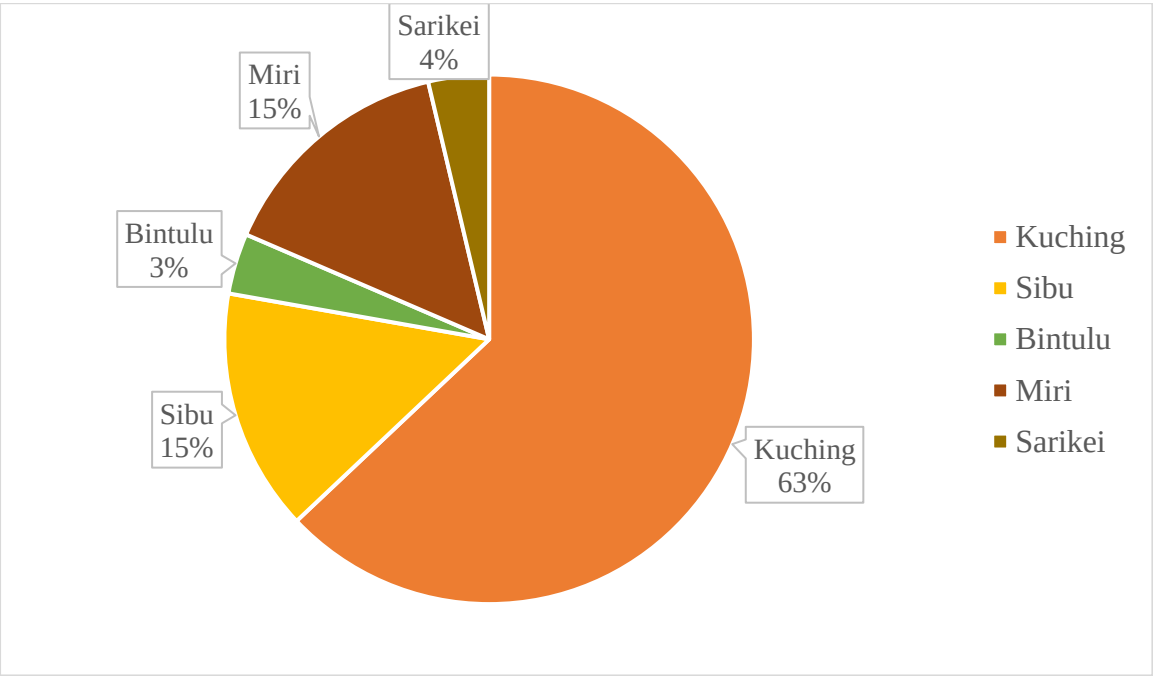
Demographic Data

Background Characteristic	N	%
Age		
Generation Z (10-25 years old)	3	11.1
Millennials (26-41 years old)	17	63.0
Generation X (42-57 years old)	3	11.1
Boomers (58-76 years old)	4	14.8
Gender		
Male	6	66.7
Female	21	33.3
Highest Education		
Diploma	3	11.1
Bachelor's Degree Graduate	17	63.0
Masters Graduate	6	22.2
High School Certificate	1	3.7
Teaching Experience		
0-10 Years	17	63.0

11-20 Years	5	18.5
21-30 Years	3	11.1
41-50 Years	2	7.4

Figure 2

District Representation of Respondents



3.4 Instrument

As mentioned above, the research method involves both quantitative and qualitative measures. As quantitative data concerns close-ended questions, a survey questionnaire is utilized while for qualitative data that involves open-ended questions, a semi-structured interview is used in this study. These two instruments are designed to answer the research questions.

3.4.1 Survey Questionnaire

To answer research question one on the level of teacher's readiness, a questionnaire is designed for this study. The questionnaire is developed through the adaptation of Kandasamy

& Shah's (2013) study. The initial study consisted of four parts which are knowledge of ICT, attitude towards ICT, use of ICT, as well as obstacles and challenges using ICT. Among all, this study adapted one part which is the attitude aspect on the use of ICT. An additional seven items are adapted from Mansor et al.'s (2021) study to measure the efficacy aspect while six items are adapted from Al-Furaydi's (2013). These questions are further modified to match the context of emergency remote teaching which is the core of this study. Prior to answering these questions, explanations on the terms and consent would be stated.

The entire questionnaire consisted of three sections. The first section of the questionnaire comprised of questions about the participant's demographic background details. Then, the second and third sections measure the level of teacher's readiness through a five-point Likert scale. For both sections, the scale ranges from Strongly Disagree (1) to Strongly Agree (5). The five-point Likert scale is chosen for its ease of use as most respondents may find it easier to understand and answer the question (Taherdoost, 2019). All 30 participants are expected to complete the questionnaire.

3.4.2 Semi-structured Interview

Moving on to the narrative data, a semi-structured interview is used to answer research question two regarding the challenges faced with the use of ICT. The reason behind the use of an interview is that it allows the researcher to gain an in-depth understanding by exploring the participants' feelings and thought about the issue. The interview questions include "Did you explore various ICT tools to teach English during the online English teaching period? What were they?", "Were the ICT tools hard to use in teaching English?" and "What challenges have you encountered with the use of ICT tools in your online English teaching during the pandemic?" Although the first few questions do not directly contribute to the research questions, those general questions are used as lead-in questions to encourage a smooth thought

process from the participants. It also helps to further elaborate the types of ICT used when describing the challenges faced.

3.5 Data Collection

This study involves two different procedures to collect the intended data. The process would be discussed in detail below.

3.5.1 Survey Questionnaire

Initially, the items of the questionnaire were being modified on Microsoft Word. After finalization, it was being transferred to Google Form where each section was being designed with the relevant columns and scales. After that, the Google Form questionnaire was administered via email to the targeted participants.

To reach the targeted participants, the email address of each school was obtained through two sources. Namely, Dong Zong and The Sarawak United Association of Chinese School Boards of Management's (Sarawak Dong Zong) official website. The first follow-up was done three working days after the email was sent through a phone call to each school. Optionally, word of mouth through a few of the reachable respondents was also utilized to reach more participants. As the CIHS teachers in Sarawak are all bound under Sarawak Dong Zong, an existing connection has already been established which makes communication easier. A second follow-up was done after three days from the first follow-up for responses that were not received.

The email and form had clearly stated that the participation is voluntary and that all information collected would only be used for academic purposes. The participant's personal information was also kept private and confidential. In the event that the explanation provided through the email and the form is not clear enough, the researcher provided two ways of

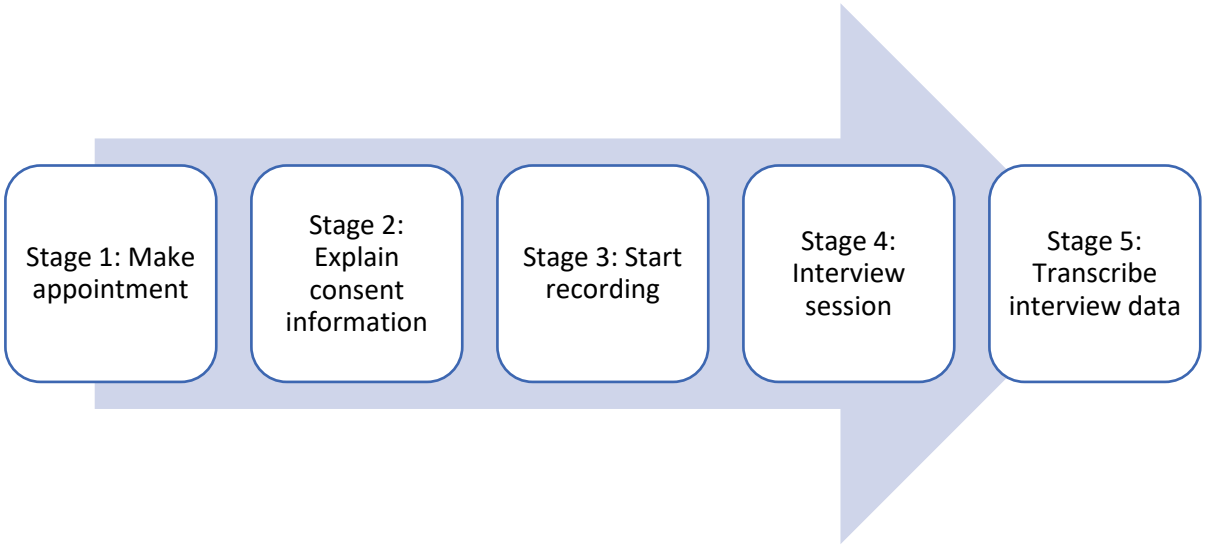
communication: email and phone number. The participants may reach out to the researcher to clarify the details of the research or questionnaire items.

3.5.2 Semi-structured Interview

Out of the 30 respondents collected in the survey questionnaire, three was selected to participate in the interview session. The sessions were conducted on a one-to-one basis which involves the researcher and one participant at each time. The selected participants would be reached out through email for consent. Then, the date and time for the interview session would also be decided prior to the session through email. Before the interview session began, the researcher explained the ethical concerns and consent for a recording. Then, the actual interview session begins by following the questions planned. In the event of short answers, the researcher added a few supplementary questions based on the situation in order to prompt responses from the participants. After the session, the interview was transcribed for the purpose of analysis. The actual session will take place for roughly 20-30 minutes through Zoom where the recordings would be administered through Zoom itself. The whole procedure for the interview is as presented in Figure 3.

Figure 3

Procedure of Semi-structured Interview



3.6 Data Analysis

3.6.1 Quantitative data analysis

The quantitative data derived from the survey questionnaire would be analyzed using Microsoft Excel and Statistical Package for Social Sciences (SPSS) 23.0. The first stage was to perform a data screening to identify issues like missing data or outliers. Then, a calculation of the frequencies, percentages, and mean values would be performed. A comparison between the mean would be performed through tabulation to determine the level of readiness. Additionally, a Cronbach Alpha test would also be administered to test the reliability of the instrument.

3.6.2 Qualitative data analysis

For the interview data, all five sessions would be transcribed using verbatim transcription. Then, the researcher would perform a thematic analysis to identify the challenges suggested by the respondents. A combination of inductive and deductive coding approaches would be utilized to identify keywords and relevant themes. As a matter of fact, the use of thematic analysis is suitable in this study as it provides an insight into the patterns of the data through its flexibility while providing a rich insight into the data (Braun & Clarke, 2006).

3.7 Summary

Overall, this chapter mainly provides an overview of the study's research design while describing the samples and instruments involved. Thereafter, the data collection process and platform were elaborated together with the data analysis methods. The next chapter would present the results and findings collected from the methodology.

CHAPTER 4

RESULTS AND ANALYSIS

4.1 Introduction

The current chapter comprises the data collected and its analysis surrounding the use of ICT tools in teaching English. The quantitative data of this study will reveal the teachers' readiness levels obtained from 27 samples. It is analyzed based on their knowledge and actual implementation of ICT. By the same token, the challenges faced by teachers in using ICT tools will be unveiled through an analysis of the qualitative data in themes. It involves the interview transcriptions collected from 3 participants through Zoom call.

4.2 Findings and Discussion

The survey questionnaire data was processed through descriptive analysis to investigate the trend in teachers' readiness levels. To explain, 23 questions were given through a 5-Point Likert Scale which ranges from "Strongly Agree (5)" to "Strongly Disagree (1)". This was followed by the calculation of the mean through SPSS Package version 23 to determine the centre point of the responses received. Four negative statements were filtered for reverse scoring. Subsequently, a scale was adapted from Al-Furyadi (2013) to interpret the mean. However, the initial study only covered a mean value of 0 - 4.0. With that, the researcher has included another scale of 4.1 – 5.0 which indicates a very high level of mean value (Table 4).

Table 4

Classification of Mean Scores

Means	Scale
0 - 2.5	Low
2.6 – 3.5	Moderate
3.6 – 4.0	High

4.1 – 5.0	Very High

Note. Adapted from "Measuring E-Learning Readiness among EFL Teachers in Intermediate Public Schools in Saudi Arabia," by A. A. Al-Furaydi, 2013, *English Language Teaching*, *6*(7), p. 113 (https://dx.doi.org/10.5539/elt.v6n7p110). Copyright 2013 by Canadian Center of Science and Education.

4.2.1 What are the Chinese Independent High School English teachers' readiness levels for ICT use in Emergency Remote Teaching?

Knowledge of ICT

Table 5

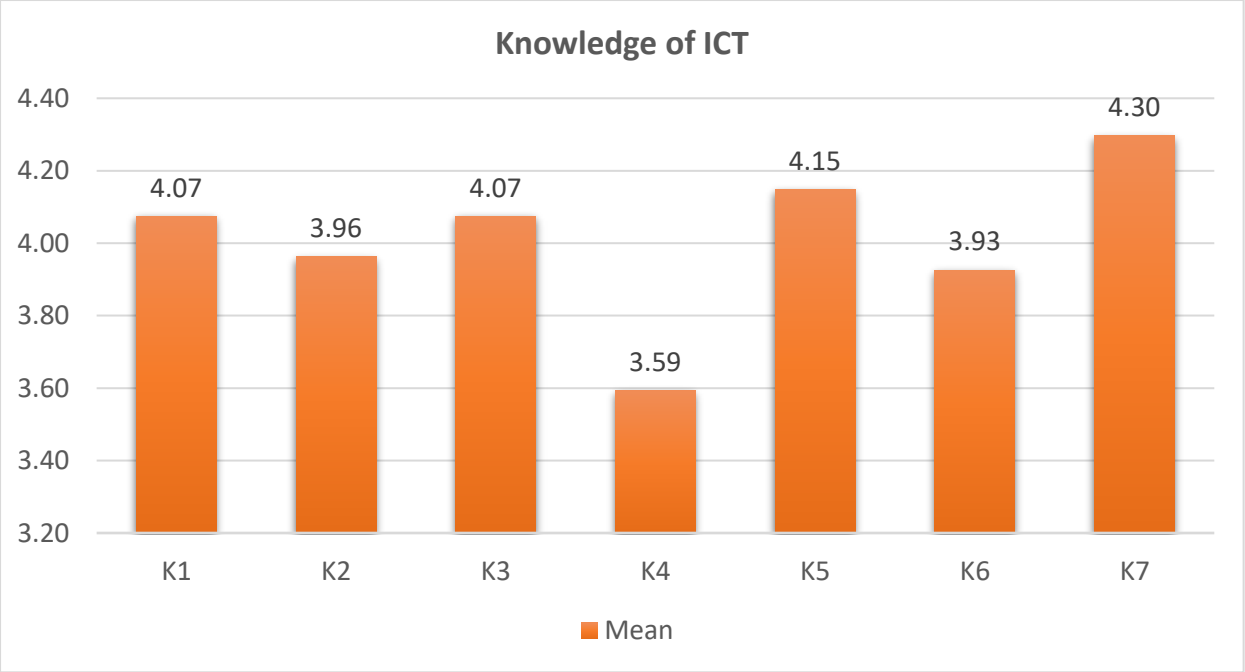
Classification of Knowledge of ICT Mean Values and Levels

Item	Mean	Level
K1.I can communicate with my students through online audio and visual comfortably.	4.07	Very High
K2.I can implement various teaching and learning strategies when using ICT.	3.96	High
K3.I can carry out my lessons live using tele-conferencing platforms smoothly (Microsoft Teams, Google Meet, Zoom, etc.)	4.07	Very High
K4.I can create a variety of English-related learning resources with online applications (Kahoot, videos, audios, e-books, etc)	3.59	Moderate
K5.I can use different kinds of platforms to share teaching and learning content.	4.15	Very High
K6.I can have a variety in terms of the platforms and resources used when conducting classes online.	3.93	High

K7.I can upload and download learning content in various forms from different sources (such as video, audio, slides, notes, and exercises).	4.30	Very High
Total	4.01	Very High

Figure 4

Mean Values of Participant's Knowledge of ICT



To achieve the first research objective, which is to investigate Chinese Independent High School (CIHS) English teachers' readiness to use ICT in Emergency Remote Teaching, Table 5 was tabulated to examine the mean scores obtained by each statement item individually and as a whole in terms of the participant's knowledge of ICT. Four items (K1, K3, K5 and K7) of this section demonstrated very high levels of mean values. Out of all, item K7 obtained the highest level with a mean value of 4.30 as observed in Figure 4. This showed that teachers can upload and download learning content in various forms from different sources. Contrastively, the lowest mean value of the participant's knowledge of ICT was at a moderate level. This was found in item K4: *I can create a variety of English-related learning resources*

with online applications. This means that teachers feel that the applications available lack in creating a variety of learning materials. The remaining two items which are items K2 and K6 obtained high levels of mean values. Both items show that the usability of ICT tools in terms of resources and teaching strategies was still agreed upon by the teachers. Overall, the total mean value calculated from all seven statement items was 4.01 which ranks the teacher's knowledge of ICT at a very high level according to Table 4. Given this point, teachers have enough knowledge needed to teach English using ICT tools during Emergency Remote Teaching.

Readiness for ICT

Table 6

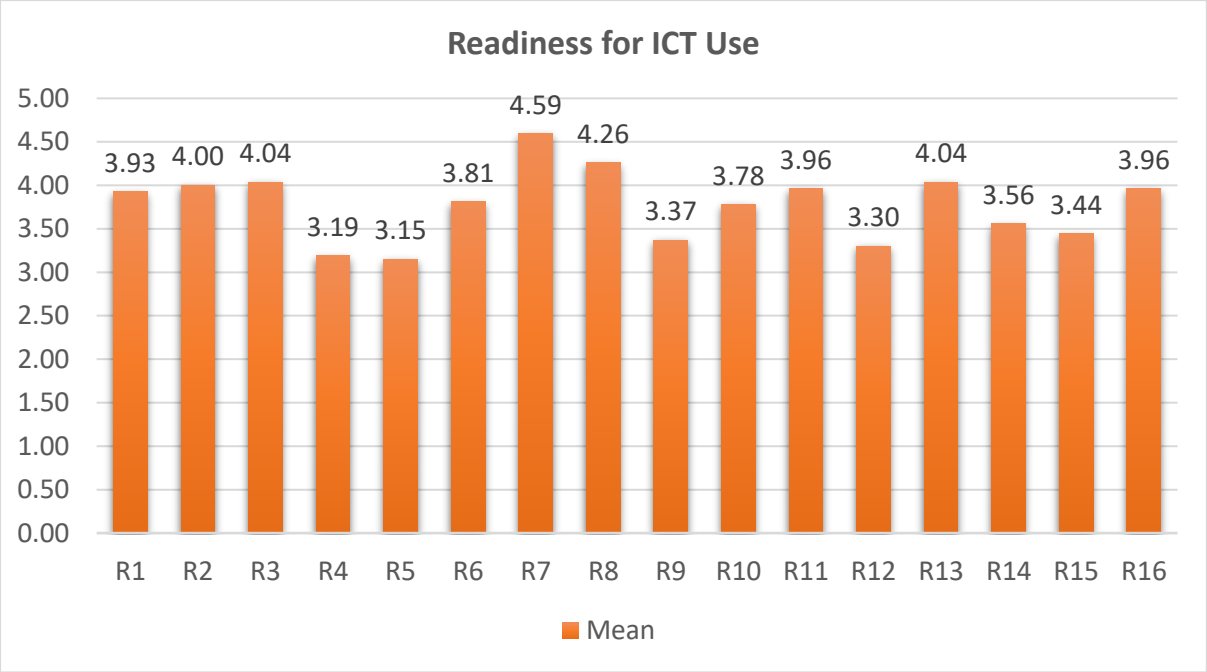
Classification of Readiness for ICT Use Mean Values and Levels

Item	Mean	Level
R1. I know what ICT tools are available for teaching English.	3.93	High
R2. Using ICT tools helped me save time in planning for the lesson.	4.00	Very High
R3. I feel comfortable using ICT as a tool in teaching and learning English during e-learning.	4.04	Very High
R4. The use of computer and other ICT tools to teach English stresses me out.	3.19	Moderate
R5. If something goes wrong I do not know how to fix it during the lesson itself.	3.15	Moderate
R6. The use of ICT in teaching and learning made me look forward to the lesson.	3.81	High
R7. The computer is a valuable tool for teaching English.	4.59	Very High
R8. The computer changed the way students learn in my classes.	4.26	Very High

R9. The ICT is not conducive for students to learn English because it is not easy to use.	3.37	Moderate
R10. The computer helped students to understand English lesson content in more effective ways.	3.78	High
R11. The computer helped me to teach in more effective ways.	3.96	High
R12. The computer is not conducive to perform good teaching because it creates technical problems.	3.30	Moderate
R13. ICT tools is a good alternative to traditional teaching.	4.04	High
R14. I think using ICT tools in teaching English will motivate my student to study more than traditional teaching.	3.56	Moderate
R15. Using ICT tools encourages more communication and engagement with my students about the lesson.	3.44	Moderate
R16. Using ICT in teaching English makes my life easy.	3.96	High
Total	3.77	High

Figure 5

Mean Values of Participant's Readiness for ICT Use

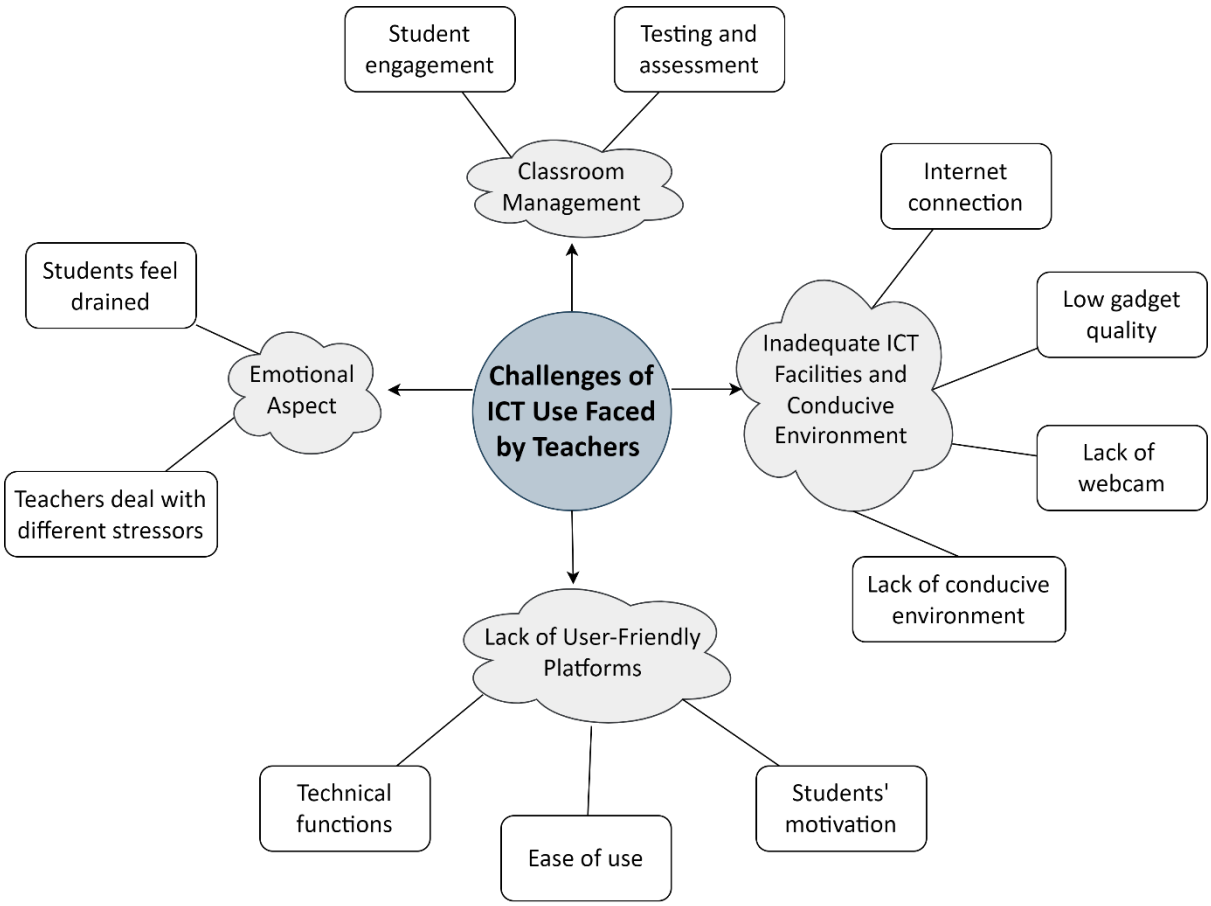


For the readiness for ICT use, item R7 demonstrated the highest mean value of 4.59 in the category while the lowest mean value of 3.15 was demonstrated by item R5 (Figure 5). most of the teachers agreed that the computer is a valuable tool for teaching English. Out of the 16 statement items, four items (R2, R3, R7 and R8) had very high levels of mean values. In fact, this level of readiness showed that teachers agreed that they could use ICT tools comfortable to teach as it saves time in planning and changes the way students learn. This is followed by six items each at the high and moderate levels of readiness for ICT use. Similar to the knowledge of ICT, the lowest level of readiness was also at the moderate level as demonstrated in Table 6. Among these, the two lowest items in the moderate level (R4 and R5) show that teachers least agree that the use of ICT tools evoked negative emotions in them while teaching. All in all, the total mean value of teachers' readiness for ICT use was 3.77. According to Table 4, this indicates a high level of readiness for ICT based on the participants' existing experiences.

4.2.3 What are the challenges faced by Chinese Independent High School English teachers with the use of ICT during Emergency Remote Teaching?

Figure 6

Thematic Analysis of Challenges Faced with The Use of ICT



Interview sessions were conducted with three participants after gathering the questionnaire survey. The interview aims to identify the challenges of ICT use for Chinese Independent High School English teachers in Emergency Remote Teaching. Participants were required to share their experiences based on five questions which lasted for 30 minutes. The interview invitation with a proposed date and time was sent out to the participant's WhatsApp number as provided in the last section of the survey questionnaire. To enumerate, the interview was mainly conducted on Zoom where the whole session was recorded. Then, thematic analysis was performed based on the transcription data. The participants' information remains

anonymous throughout this research. Therefore, the participants are labelled as P together with a number to identify different individuals in this section. The overall data are grouped according to themes as demonstrated in Figure 6. A few challenges mentioned by the teachers include inadequate ICT facilities and a conducive environment, lack of user-friendly functions, classroom management in terms of student engagement and assessment, as well as emotional challenges to tackle on the teacher and students' side.

4.2.3.1 Classroom Management

With regard to the challenges of ICT use faced by teachers, the theme that was most discussed across all participants was the issue of classroom management.

Student Engagement

Mainly, student engagement was hard to track and maintain during the lessons. One of the reasons was the lack of non-verbal communication. One of the teachers (P1) stated that: "most of the students, they're not willing to turn on the videos [camera]. So, we are not sure if they are there or not*"*. This was further emphasized by another teacher (P2): "I find physical classes to be more effective and it's easier to keep them [students] focused in class when you have eye contact and you have your gestures and non-verbal communication". From this comparison, it can be observed that the lack of non-verbal communication poses a challenge for teachers to identify students' actual participation, engage with them, and maintain their focus on the lesson.

Moreover, the low participation in lesson interactions made it hard for teachers to gauge if students understood the lesson content. P1 stated that "to turn on their mic, they [students] are quite shy". P2 also agreed with this statement that when "compared to physical lessons, I feel like they were less inclined to participate" and "they were very shy to unmute themselves

and answer questions unless they were really forced to". These responses given by the participants demonstrated the struggle teachers face in engaging with students. Their participation level was considerably low, and they are shy or reluctant to switch on their microphones and speak.

Significantly, teachers failed to ensure that students can learn effectively or achieve the learning outcomes for the lessons. In fact, teachers realize that students' absorption of knowledge is low when using ICT tools in teaching English. Then, it causes students' English proficiency levels to drop as observed through the only methods available: formative and summative assessments. The participants commented on this as follows:

> P1: "…because of these two years pandemic, you can see that the learning of the students are affected in some way, consider their level of English is quite…I would say weak …"

> P3: "…the students they don't learn as much as compared to physical class. Cause when you ask 明白吗 [do you understand]? Ah yaya, yes teacher, yes teacher. But during uh maybe quizzes time, uh it doesn't show any positive result. So uh the absorption of the knowledge is the key here. They won't be able to absorb as much…"

With the lack of student engagement, the lesson outcome was "not very sound" as explained by P3. As a result, teachers had to frequently check on students' actual presence and lesson progress by using a lot of questioning techniques. Especially since student engagement has been difficult to achieve. P2 explains that:

> "sometimes uhh mid-lesson the student will disappear to go to the toilet or to-to uh-not sure what they are doing but they would disappear sometimes. And then we will have to constantly check if they are there and whether or not they are not listening."

As a result of difficulties in achieving student engagement, teachers have to use different techniques to combat this. Yet, it was found that the methods used to increase student engagement were time-consuming. To be specific, the use of questioning techniques poses such a challenge. Several participants have repeatedly mentioned that it "takes up a lot of time" as illustrated below:

> P2: "So online when you ask them a question, they tend to take longer to answer the questions whereas in class when you ask them a question, they are able to answer a lot faster. So I feel a lot of time is wasted there, waiting for responses."

> P3: "That questioning and answering session, the q&a session eventually it becomes, it take up a lot of time, okay online."

Testing and Assessment

Another challenge faced by teachers with the use of ICT in teaching is the credibility of the test and assessment outcomes. The participants mentioned that exams conducted via ICT tools cannot guarantee the authenticity of results. This is because there are many ways students can cheat off-camera and this makes it hard for teachers to catch students who have cheated. One of the participants further shared that even when plagiarism was found, the students would deny that they have cheated on the exam. These were elaborated as follows:

> P3: "I don't think online exam is uh credible."

> P1: "sometimes we don't know when they sit for the test, like umm…the school formal test right? It's very hard for me to make sure that they don't cheat...I haven't figure out a really good way like how to prevent them from cheating."

P3: “we know that some of the students, we are very familiar with their level, with their standard, apparently the essay it doesn’t reflect how they perform because once we are able to detect plagiarizing, they would actually deny. But the thing is, we can’t in a sense catch them red handed, that’s the problem.”

These explanations provided by the participants show that the existing ICT tools available are yet to prevent students from cheating and produce authentic results. This poses itself a huge challenge for teachers in conducting tests and assessments.

Additionally, teachers have pointed out that they found it difficult to evaluate students’ learning outcomes accurately. Even when students can express their knowledge of the lesson topic. Teachers cannot be sure if they have fully understood the topic just based on one question. P1 explains that:

“we cannot 100% prevent this from happening so they’ll-there will be the issue of unfairness that when we got the result we-we are not sure if this is the result that he/she should get...We can still see that yes they have learned this, they mastered this right? But we cannot 100% sure that they really…they’re really good at it.”

As observed from these responses gathered during the interview, teachers have noticed a huge challenge of ICT use in classroom management. Markedly, in terms of attaining student engagement and ensuring the credibility of testing and assessments.

4.2.3.2 Inadequate ICT Facilities and Conducive Environment

Teachers have expressed that one of the challenges with using ICT tools in teaching was the inadequacy of ICT facilities and a conducive environment for teaching.

Internet Connection

One of the participants (P1) explained that one of "the most obvious" challenge was "not having a good internet connection". When the connectivity is poor, it breaks the connection that teachers have with students while teaching. Teachers face this quite often when the teacher's teaching and students' participation are disrupted. To elaborate, students will "get kicked out" of the platform even when "they'll try to come back in but get kicked out again due to the internet connection". In the same way, the teacher's voice will be breaking as P1 expresses that students "won't be able to hear properly what I'm saying".

Not to mention, certain platforms used in the lessons require high internet speed to function as well. This was voiced out by two participants as follows:

> P1: "It use a lot of data when you have umm like Quizziz it will use a lot of data and sometime it will tsk somehow their line is breaking up so its very hard for them to use it because of the internet connection."

> P3: ": Uhh actually we tried uh these Kahoot and Quizziz but the problem again is the stability of the connection. For us, when we start the question it can flow smoothly. But for some students, somehow maybe due to the uh poor connection, they weren't able to view the questions."

From the comments, internet connectivity clearly poses itself as a challenge in terms of ICT facilities. Without sufficient speed, certain students cannot utilize the platform and follow the lesson. As observed, some students were not able to view the questions or answer the questions smoothly when using the platform for lesson activities.

On the other hand, tests and lesson materials were also affected when internet connectivity is poor. Two participants expressed this matter below:

P2: “we can play videos as long as their internet connection is stable, then everything could be done smoothly.”

P3: “But they give the, it could be the excuses but its also reasonable that they would say, uh teacher I can’t upload my answer, I can’t submit my paper because uh the internet connection here is unstable.”

According to the responses, it has been demonstrated that teachers are limited in terms of the lesson materials provided as they can only utilize those with good internet connectivity. For instance, videos will only be shown smoothly with a good connection. With regards to tests, a participant had expressed that teachers cannot receive students' answer scripts from tests when the internet connectivity is poor.

On the whole, poor internet connection affects the teacher’s teaching and students’ participation in a lesson. It also limits the use of platforms and lesson materials with those that require high speed. Then, the exam procedure is also affected when internet connectivity is not stable.

Low Gadget Quality

Teachers found gadget quality to be a challenge because if the gadget used has lower specifications, it cannot support the educational usage of ICT tools to teach online. It was shared that the issue of lagging computers and slow internet occurs when multiple functions or applications are running at the same time. This presents many technical issues which disrupt the lesson a lot. The issue of low gadget quality was explained by P1:

“before [this, when] I used my old laptop, there will be ve- it will be very problematic because how to say, it cannot support when I have a lot of apps or anything right, it's

very hard to support because it will be very slow and I also need to turn on my video so it will slow down the speed and its, it will make the class how to say, somehow just technical issues, right? Like it's not very smooth, sometimes I will lag or anything."

Lack of Webcam

A lack of a webcam on the students' side also poses a challenge to the teacher. When the students do not have a functioning webcam to attend online classes, the teacher will not be able to track the students' non-verbal cues. As a matter of fact, teachers can only look at a screen that does not show the student's real-time face. P2 supports this by stating that: "Oh yes, that [non-verbal communication] was also another issue. A lot of them would say that they have bad connection, or they don't have a webcam, or their webcam spoiled."

Lack of Conducive Environment

Another teacher also revealed that distractions from the students' physical environment when participating in the lesson is a challenge. To point out, the unnecessary noise caused when students unmute their microphones will affect the lesson flow. It also makes it hard for students to attend classes with the lack of a conducive environment. The participant (P2) compares this to a physical classroom as such:

"Another thing is all the distractions during online lessons, uhh I think quite a few of them would attend lessons from their living room so when they…if they unmute themselves you would hear their family members talking in the background or they will be pets barking at the background. And all these are just very big distractions that you wouldn't otherwise have in a physical classroom."

4.2.3.3 Lack of User-Friendly Platforms

Technical Functions

Teachers have pointed out that ICT tools pose many limitations in terms of technical functions which makes them hard to integrate into teaching. Among which includes certain platforms that require gadgets with higher specifications. To illustrate, P1 described that most students attend classes with mobile phones and they found it hard to participate in certain activities done on collaborative platforms. When the screen is too small, students cannot see the contents on the platform or write their input on the platform. This becomes a challenge as the platform require big screens and teachers cannot include all students in the lesson activity. P1 demonstrates this as follows:

> "..for the Whiteboardfi, I guess, it is quite inconvenient for some of the students. For that one, if they want to use the…I mean the handwriting right, they need to have the touchscreen to write it. They find it very difficult to write because maybe the tools, the things are too small on their phone. Because most of them they use their mobile phone to…to join the online class. So maybe the screen is too small, it's very hard for them to use."

Other than that, another teacher had expressed that certain platforms limit the file size and it becomes challenging to upload lesson materials. P3 explains that when using Facebook, teachers "can only upload up to a maximum of 9 megabytes" and it "creates a lot of complications". To cope with this insufficient technical function, teachers would have to "compact it [the lesson materials]" and "take out a lot of things which we [teachers] think could be useful information" just to fit into the specified size limit. The participant further expressed this as a challenge of ICT tools because it is "unreasonable" for teachers to use.

Another point to take note of is that teachers found it challenging to use certain ICT tools because users cannot navigate between platforms easily. In the Emergency Remote

Teaching context, this refers to both teachers and students. Below were the responses received from the participants:

> P1: "…they have to switch back to here and there, so they find it very complicated to use it."

> P3: "maybe during classes we have to show our slides and it has to be in fullscreen uh to enable them to see the slides clearly. So it's quite difficult for teachers to navigate between slides and their camera lenses okay every now and then because that would just disrupt the flow of the lesson."

Taking these responses into consideration, teachers who were interviewed expressed that it is complicated to switch between slides and the video conferencing platform. It disrupts the lesson flow and teachers would have to prioritize the lesson content most of the time, which in this case refers to the slides. On the students' end, this issue occurs when they need to switch between collaborative tools and the video conferencing platform. Between both, students would have to prioritize the video conferencing platform to follow through with the lesson flow. With that, the challenge is found with a lack of user-friendly platforms that cater for functional use of two platforms at once.

Ease of Use

Moving on, the participants also shared that the available platforms for their use are not particularly easy to use. All the participants expressed this as such:

> P1: "basically I myself need to search for the information online. In the beginning, actually we are…we were not trained to use all these. We just uh look up ourselves and try to put all these things inside our teaching"

P3: “We are not used to all these things and uh for teachers especially, those uh senior teachers who are not very familiar with these uh ICT tools, they face a lot of problems. For example, how to turn on, how to share the link, how to create a meeting room like this. And how do you direct or instruct the students to key in the class code or the class password. Uh all these things we have to learn from A-Z.”

P3: “Because some of the students they claim that they have not received the invitation uh that we have sent out so uhhh quite a lot of them, at least 30% of the population, Okay? They failed to attend our online classes, so that was a problem.”

These responses portrayed that teachers have to spend extra time exploring the platforms that are suitable for their use. In fact, they did not have prior training or experience in using those ICT tools. Therefore, it is not easy to master the functions and they have to spend extra time learning it. Also, certain functions were too complicated to use. One of the participants explained that students could not attend classes because the invitation codes were not received despite being sent out by teachers. This caused about 30% of the school population to miss out on classes. Evidently, teachers struggle with certain platforms due to the complicated design of their functions.

Students’ Motivation

Part of the challenge with using ICT tools in teaching is that students tend to give up on the lesson easily if the platforms are too hard to use. P1 explains that the students do not bother to try even if the activities utilized interesting lesson materials such as games. To quote P1, it was mentioned that “if it’s very hard for them to erm use the tools right, sometime they will give up. They are not willing to join the games at all”.

4.2.3.4 Emotional Aspect

Interestingly, the emotional aspect was also pointed out as a challenge by the participants. They have expressed that it affects both teachers and students with the use of ICT tools during the Emergency Remote Teaching period.

Teachers

Participants have expressed that they feel stressed and tired when dealing with different stressors of Emergency Remote Teaching. It includes classroom management and technical issues. In fact, it was pointed out that teachers will affect the lesson experience when such stressors are involved in teaching. P3 expresses this issue as follows:

> Yes, it [classroom management] is very time-consuming and then it's very tiring on the teacher as well. Because we have to train or try very hard to uh learn how to manage our emotion. Because you feel like they are tempting you. If there is no response, you feel like students are actually ignoring your questions and they are not paying attention and that makes you frustrated.
>
> If you get very pessimistic and stressed over little things, it actually will give these-these students and the teachers a hard time.

Students

Similarly, students faced a limitation with ICT tools where they are required to stay put in front of the computer for long hours to stay focused on the lesson content. This becomes a challenge to teachers because it is hard for the lesson to go on smoothly. In addition, teachers cannot achieve student engagement and there is an increase in classroom management issues. P3 explains this scenario:

Another thing is that, some students they tend to ignore instructions. And then at the end of the day, they will just tell you uh ‘why are you not participating?’ Okay so, the answer is very blunt, ‘Oh I have attended the class, okay? I stay in the class. What more do you want from me?’ Its actually very strenuous on them, it strains a lot of their, it drain a lot of their energy because they can’t stay put.

4.3 Summary

This chapter has presented the analysis of data collected concerning the readiness level of teachers which was determined through the calculation of mean scores. In like manner, the challenges faced by teachers in using ICT tools during the Emergency Remote Teaching period were also presented according to the themes analysed.

CHAPTER 5

CONCLUSION

5.1 Introduction

As the final chapter of this paper, the main findings will be discussed alongside with it's relevance to the two research objectives. The discussion will be based on the results and findings presented in the previous chapter. Then, a conclusion will be drawn by the presentation of implications and recommendations for future studies.

5.2 Summary of Main Findings

Based on the findings gathered from the quantitative data, it was found that the English teachers of Chinese Independent High School (CIHS) have very high levels of ICT knowledge. Besides, the quantitative data only demonstrated high levels of readiness for ICT use, which is slightly lower than the knowledge level. Next, the data collected from the semi-structured interview further recognized four main areas of challenges faced by English teachers in teaching with ICT tools. Namely, classroom management, inadequate ICT facilities and conducive environment, lack of user-friendly platforms as well as the emotional aspect.

5.2.1 Readiness level for ICT Use

Knowledge of ICT

Among all the statements in the questionnaire of the knowledge section, teachers are found to be especially proficient in using various forms of teaching materials as well as distributing them to students through different platforms. This renews the findings from previous studies done pre-pandemic and during-pandemic which found teachers to have lower levels of knowledge of ICT. To explain, two studies done during the pre-pandemic era have found teachers to obtain a moderate level of knowledge in ICT (Kandasamy & Shah, 2013;

Singh & Chan, 2014). Teachers were only competent with ICT tools which were commonly used in their jobs, such as Microsoft applications, presentation slides and email platforms. Then, a study done during the pandemic found that teachers' knowledge levels increased but only ranked at a high level (AlSaqqaf & Hu, 2021). To compare, the knowledge level is slightly lower than the findings of this study.

The difference between pre-pandemic and during-pandemic was observed as Malaysians spend more time on the internet when the pandemic began. To illustrate, half of the internet users were found to spend 5 to 12 hours per day on the internet (Malaysian Communications and Multimedia Commission, 2020). On the teacher's end, they were forced to use the internet to teach. This results in increased exposure to different ICT tools. With that, they obtained basic skills to operate a computer and search for teaching materials online as found by AlSaqqaf & Hu (2021). Based on these studies, it is evident that actual usage plays an important role in teachers' knowledge of ICT. During the pre-pandemic era, there was less usage of the internet which resulted in a moderate level of knowledge. As with the compulsory use during pandemic, the knowledge level increases. To put it in another way, the longer time spent using the internet, the higher the level of ICT knowledge acquired. This has also been proven by Hafifah & Sulistyo (2020)'s study.

Significantly, it had been two years since the implementation of Emergency Remote Teaching when the research for the present paper was conducted. Therefore, teachers would have increased their knowledge of ICT as compared to the time of the aforementioned studies. The prolonged usage causes teachers' knowledge of ICT to rise to very high levels in this study. In fact, the teachers' knowledge of ICT also reflects their readiness for ICT use in teaching (Al-Furaydi, 2013). Without a basic knowledge of ICT, teachers might not feel ready or even consider performing their teaching using ICT tools. Thus, with very high levels of ICT

knowledge, it can be interpreted that the CIHS English teachers have obtained a certain level of readiness to use ICT in teaching during the Emergency Remote Teaching situation.

Readiness for ICT

As mentioned, the teachers' readiness level is slightly lower than the knowledge of ICT in this study. Yet, it still ranks at a high level. This is in line with Mansor et al. (2021)'s study where teachers were found to obtain strong readiness for ICT use. Uniquely, the same study also found that attitude has the highest contribution to the readiness level. As discussed in previous chapters, the Technology Acceptance Model reveals that the actual readiness to use technology in teaching is closely related to teachers' attitudes and intentions in using them. In other words, readiness can be observed through teachers' attitudes.

A few studies found that teachers have positive attitudes towards the use of ICT (Al-Furaydi, 2013; Kandasamy & Shah, 2013; Ling et al., 2021). To point out, teachers from pre-pandemic studies strongly agreed that technology is a valuable tool in teaching language as it improves the students' way of learning and provides motivation. The later study done during the pandemic also found teachers enhancing their teaching with ICT tools. Such positive attitudes found across three studies translates to a high level of readiness. Similarly, the teachers of this study least agreed that using ICT tools in teaching causes negative emotions in them. This means that they hold a positive attitude towards the use of ICT tools in teaching which translates to a certain level of readiness.

Looking at the overall readiness, the English teachers from CIHS are ready to use ICT tools in teaching English during the Emergency Remote Teaching situation as observed from the knowledge and attitude aspect. It was interesting that this study found teachers to obtain higher levels of readiness in ICT knowledge as compared to the attitude aspect. The overall

finding of this study is similar to previous studies. As reviewed in previous chapters, studies done during the pandemic have found teachers to be on the whole moderately to highly ready (AlSaqqaf & Hu, 2021; Ling et al., 2021; Zou et al., 2021). Among these, the studies have also found higher levels of readiness in terms of technology knowledge. During the pandemic, schools had to immediately adjust to the government-mandated Emergency Remote Teaching during the pandemic. The majority of them prioritised the exploration of usable ICT tools and their basic functions; the training only came secondary. This was further proven when a study found that many schools focus on the availability of tools instead of how to incorporate them into teaching (Li, 2021). Therefore, teachers may have high levels of knowledge but still find it hard to perceive themselves as ready users of ICT tools in teaching.

5.2.2 Challenges of ICT Use

Classroom Management

Although the teachers claimed to have high levels of knowledge in using ICT tools, the primary concern was with classroom management. All three interviewees mentioned that student engagement was the biggest challenge met. The same results were found across studies in the context of Emergency Remote Teaching of English (Yong et al., 2021; Zou et al., 2021). Specifically, the interviewees of this study could not ensure students' participation in class or their learning progress.

With regards to student participation, the teachers have pointed out that the lack of non-verbal communication was the biggest factor that contributed to this. Prior to the pandemic, teachers could take into account student engagement while teaching by observing the students' body language. However, with Emergency Remote Teaching, the interviewees have revealed that students tend not to switch on their cameras and microphones. Most of the time, they would

not respond to the teacher's questions as well. This further portrays limited verbal communication involved in the virtual classroom. Not to mention, a lot of class time is spent waiting for verbal responses from the students to create engagement. Engagement and interaction, no matter verbal or non-verbal go hand in hand with language learning. This is because it is among the most accurate predictors of successful learning (Tinto, 1997, as cited in Ginting, 2021). Consequently, one of the interviewees pointed out that students might have learned the lesson content but has yet to successfully master the knowledge taught during Emergency Remote Teaching. Teachers fail to gauge the student's learning progress in depth while teaching virtually. In sum, the disability of ICT tools to cater for student engagement creates limited interaction between students and teachers. It then creates more issues in managing a classroom.

Inadequate ICT Facilities and Conducive Environment

The common issue of using ICT tools in teaching concerns the quality of internet connection. All the interviewees have stated that poor internet connectivity often disrupts their teaching in terms of the lesson flow, platforms, and teaching materials. In actual fact, the occurrence of poor internet connectivity has been reported across multiple studies done in Malaysia during the Emergency Remote Teaching period (Lukas & Yunus, 2021; Ng & Yunus, 2021; Ramadass & Shah, 2022). This shows a consistent prevalence of the lack of good internet quality to cater for Emergency Remote Teaching in Malaysia.

It is important to note that internet connectivity plays an important role in Emergency Remote Teaching as it drives all aspects of virtual teaching. Without sufficient connection, teachers are not able to use innovative teaching which has been said to encourage students' learning and create a student-centred classroom (Bray et al., 2021). It creates an impact on

teachers to be demotivated to use ICT tools in teaching (Yew & Tan, 2020). This is further expressed by the teachers in this study. It was mentioned that they are being restricted of suitable platforms and teaching materials in teaching. To illustrate, certain platforms which require high internet speed has to be eliminated despite bringing the element of fun to the classroom. As a result, they tend to shy away from using them for fear of an unpleasant lesson experience. With that, the inadequacy of ICT facilities in Malaysia poses a challenge for teachers to use ICT tools in teaching to its fullest.

Lack of User-Friendly Platforms

Another obstacle of using ICT tools in language teaching is the lack of user-friendly platforms. The interviewees have revealed that teachers face issues with simple functions of ICT tools, such as adding students to the platform or creating meeting rooms. This means that the functions available are not user-friendly enough or require time to utilize them. Not to mention, the increasing functions updated throughout the pandemic confuses the teacher and they have to allocate time to update their own ICT knowledge (Joshi et al., 2021).

Even though teachers have been reported to obtain very high levels of knowledge of ICT previously, at the initial stage they were being placed into this Emergency Remote Teaching situation abruptly. They were not prepared for what was to come initially. In truth, not all teachers are technology experts when entering the Emergency Remote Teaching situation. Age is a factor where senior teachers require time and effort to learn how to function the ICT tools (Hazaea et al., 2021). Even after a certain period with actual usage, training is still required to understand the pedagogies and achieve smooth teaching. In addition, students are of the younger generation of Generation Z. They are more proficient than teachers in using

ICT. So, even with high levels of ICT knowledge, teachers will generate self-doubt about their ability to teach with ICT tools (Clement & Yunus, 2021).

Emotional Aspect

Among the qualitative data obtained, one of the interviewees has shed light on mental health as a challenge of using ICT tools in Emergency Remote Teaching. It was further revealed that both teachers and students were struggling with such challenges. Though the effects are indirect, the interviewee mentioned that it reflects on the success of teaching. To enumerate, students require psychological support in physical form to be motivated in learning (Yong et al., 2021). In the Emergency Remote Teaching context, teachers fail to provide such support when using ICT tools to teach. When that happens, teachers may feel helpless and question if they have done their best to assist pupils in succeeding (Clement & Yunus, 2021). On the teacher's end, stress also occurs when technical issues surface as explained by one of the interviewees. The teacher was worried that such stress will reflect on their teaching and affect the student's learning negatively. To point out, an existing study has reported Malaysian teachers' stress count to be at a moderate level during the pandemic (Rosli & Bakar, 2021). More studies can be done to look into the correlation between the use of ICT and teachers' mental health when teaching.

5.3 Implications of the Study

The results of this study have confirmed that CIHS teachers are ready for the use of ICT in teaching at the present moment. As a matter of fact, teachers perceive ICT tools as a positive tool for teaching. Yet, they have high levels of knowledge but lower levels of readiness in using ICT for language teaching. One crucial step needed to achieve successful teaching

through technology is to equip teachers with actual practice in teaching with ICT tools. Even though teachers may seem ready to teach at current times, research has suggested that trainings on the use of digital tools alone are not as effective as compared to training that integrate pedagogical context (Li, 2021; Meirovitz et al., 2022). This is due to the fact that using technology in daily life and in teaching are two different usages (Panesi et al., 2020). Therefore, stakeholders need to provide frequent training and look into pedagogical aspects for long-term effectiveness.

Furthermore, the high levels of readiness should not blind us from the challenges teachers face. This study has shown that without sufficient internet, the interesting materials provided cannot be used in teaching. With that being said, there is a need for facilities like internet connection to be improved in East Malaysia. Teachers should also be provided with better gadget quality to support the varied use of ICT in teaching. Perhaps, funding for gadget upgrades can be considered by the management of CIHS. Optionally, teachers should teach learners to become self-regulated learners with the use of ICT tools since it is known that funding in CIHS are limited (Raman & Tan, 2015). Through self-regulation, students will not have to depend on the teacher to learn. Especially in the Emergency Remote Teaching situation where students can only connect with the teacher through the internet. Uniquely, self-regulated learners are much more preferred when it comes to language learning with regard to real-life practice (Tajudin et al., 2022).

Moving forward, information technology companies should develop more user-friendly platforms for virtual teaching and learning. It has been known that technology can assist in the learning of all four basic language skills (listening, speaking, reading, writing) and subskills (grammar and vocabulary) efficiently (Ghanizadeh et al., 2015). Yet, its functionality poses itself as a challenge to achieve this as demonstrated in this study. Hence, it is essential to have

a platform that caters to the teaching of four basic skills with easy functions. If possible, the developers may come up with user manuals and suggested pedagogies to support teachers in using the ICT tools. It will be effective when training are not available to teachers. Most importantly, the challenges presented in this study need to be addressed by relevant authorities. Otherwise, students' English proficiency will continue to drop in the long run when not solved.

5.4 Recommendation for Future Studies

Looking at the research as a whole, there are several recommendations for future researchers to improve the research regarding educational technology. On the whole, this study only managed to recruit 27 English teachers from CIHS in Sarawak which is mainly made up of teachers from one district: Kuching. Given the sample size, the findings of the present study cannot be generalized to the educational system in its entirety. Further research may employ a similar research design with larger samples from different districts or states to generate concrete findings. Considering teachers from other areas may generate a different outlook on the issue.

Additionally, the current study failed to address other aspects of readiness. Future research may split the readiness level into different aspects. And as discussed, pedagogy plays an important role in educational technology. Thus, research may progress towards pedagogical matters since it has been a few years of actual usage in the field. It may provide a comprehensive view towards the use of ICT tools in language teaching can be obtained with further research instead of just evaluating its effectiveness and challenges. This may be advantageous for curriculum and syllabus design as well where the appropriate type of teaching methods can be focused on.

Finally, future research may also investigate the relationship between teaching experience, teacher's age, and readiness. Since it was mentioned that senior teachers find it hard to use certain basic functions of ICT tools needed in teaching, generation gap might be a subject in question concerning teacher readiness. On the other hand, additional research is needed to determine students' readiness considering most of the challenges mentioned concern their learning experience as well.

5.5 Summary

Altogether, this chapter has addressed the summary of the main findings of this current research paper with regard to the research questions. The implications and recommendations for future studies have also been presented.

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Appendices

Appendix 1: Survey Questionnaire

The Use of ICT During Covid-19: A Study of Chinese Independent High School English Teachers' Readiness and Challenges

Dear Respondents,

You have been asked to participate in a research study that is part of the requirement for a Bachelor's Degree in English Education programme for Lelia Myriam Bong Siu Mien at Universiti Tunku Abdul Rahman. Before you agree to participate in this study, it is important that you read about and understand the study and the procedures it involves.

The purpose of this study is to investigate Sarawak Chinese Independent High School (CIHS) English teachers' readiness to use ICT in emergency remote teaching and its challenges. You have been asked to participate because you are an English Teacher in Sarawak's CIHS.

If you decide to take part in this study, you will be asked to fill out a survey questionnaire which will ask you some personal information and teaching habits. This questionnaire will take about 10-15 minutes to complete.
Any information provided will be kept private and confidential. The information gathered will be accessible only by the researchers and will be kept anonymous.

Your participation in this research is fully voluntary. If you decide to take part but later change your mind, you may stop at any time. If you decide to stop, you do not have to give a reason and there will be no negative consequences for ending your participation.

Thank you in advance for taking your time off to participate in this research.

If you have any questions about the study or your role in it, the researcher will be happy to answer them for you. The researcher may be contacted at liamyriam00@1utar.my.

I have read the above purpose of the study, and understand my role in participating in the research. I voluntarily agree to take part in this research. *

◯ Agree

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Demographic Information

Age *

Your answer

Gender *

- ◯ Male
- ◯ Female

Highest Education *

- ◯ Diploma
- ◯ Bachelor's Degree Graduate
- ◯ Masters Graduate
- ◯ PhD Graduate
- ◯ Other:

Current school you are teaching in *

Choose

Teaching Experience/Year(s) *

Your answer

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Knowledge of ICT

Answer the following questions based on your personal feelings and opinions.

Note
0: Strongly Disagree
1: Disagree
2: Unsure
3: Agree
4: Strongly Agree

During the e-learning period of the pandemic:

1. I can communicate with my students through online audio and visual comfortably. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

2. I can implement various teaching and learning strategies when using ICT. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

3. I can carry out my lessons live using tele-conferencing platforms smoothly (Microsoft Teams, Google Meet, Zoom, etc.) *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

4. I can create a variety of English-related learning resources with online applications (Kahoot, videos, audios, e-books, etc) *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

5. I can use different kinds of platforms to share teaching and learning content. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

6. I can have a variety in terms of the platforms and resources used when conducting classes online. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

7. I can upload and download learning content in various forms from different sources (such as video, audio, slides, notes, and exercises). *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Back Next Page 3 of 6 Clear form

Readiness for ICT

Answer the following questions based on your personal feelings and opinions.

Note
0: Strongly Disagree
1: Disagree
2: Unsure
3: Agree
4: Strongly Agree

1. I know what ICT tools are available for teaching English. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

2. Using ICT tools helped me save time in planning for the lesson. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

3. I feel comfortable using ICT as a tool in teaching and learning English during e-learning. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

4. The use of computer and other ICT tools to teach English stresses me out. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

5. If something goes wrong I do not know how to fix it during the lesson itself. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

6. The use of ICT in teaching and learning made me look forward to the lesson. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

7. The computer is a valuable tool for teaching English. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

8. The computer changed the way students learn in my classes. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

9. The ICT is not conducive for students to learn English because it is not easy to use. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

10. The computer helped students to understand English lesson content in more effective ways. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

11. The computer helped me to teach in more effective ways. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

12. The computer is not conducive to perform good teaching because it creates technical problems. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

13. ICT tools is a good alternative to traditional teaching. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

14. I think using ICT tools in teaching English will motivate my student to study more than traditional teaching. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

15. Using ICT tools encourages more communication and engagement with my students about the lesson. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

16. Using ICT in teaching English makes my life easy. *

	0	1	2	3	4	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Back Next Page 4 of 6 Clear form

Would you like to participate in a short interview as part two of the research study? *

- ◯ Yes
- ◯ No

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Please leave your contact details below for further interview. Should you be selected, the researcher will contact you for further information.

Name *

Your answer

Contact number *

Your answer

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Appendix 2: Interview Questions

1. Did you explore various ICT tools to teach English during the online English teaching period? What were they?
2. How would you describe your students' response and participation to the use of ICT tools?
3. Are your students able to use the ICT tools? Justify your answer.
4. How effective was the use of ICT tools in teaching English?
5. What challenges have you encountered with the use of ICT tools in your online English teaching during the pandemic?

Appendix 3: Verbal Consent

Good afternoon. Thank you for participating in this research study. The title of this study is **"The Use of ICT During Covid-19: A Study of Chinese Independent High School English Teachers' Readiness and Challenges".** This purpose of this interview is to *identify the challenges of ICT use for Chinese Independent High School English teachers in emergency remote teaching.* The interview session will be recorded and transcribed. Any information you have given will be kept private and confidential, and will only be used for research purposes. Additionally, your name will not appear in any form of the data in the research report. May I have your consent to record this session?

Appendix 4: Interview Transcriptions

Interview transcription – Participant 1

Interviewer: Did you explore any different types of ICT tool to teach English during the online lesson period? And what are they? Can you list out a few?

Participant 1: Yes. Yes. I did. Umm. Actually when I look for the tools I basically use it to create a more interactive powerpoint teaching because we need to show what's the students um what we are teaching to the students. and also we need to increase the interactions, the online interactions. Some I use it for the assessments, like the quiz, test, to check if they really understand what I…I teach them. And also some after-class practice which they can do it at home. So, for the powerpoint teachings I use the Canva tool haha It makes it uh more interesting for the students. And for interaction, like in-class interactions, I use Padlet so the students they can type their feedback directly on the spot. I also use the whiteboard, I don't know how to pronounce that, whiteboardfi. It's a whiteboard that I can actually show the students the questions. Then, they can just respond. They can cut, they can take uh photos of their response, their answer that I can check if they really understand it. And also give my response personally on the…on what they show. So, and for…regarding the test, assessments, basically I use Quizziz and Kahoot, which is uhh…it has a lot of music and students they really like it when they can see the rank. Like okay I want to get number 1 so it creates a competitive erm learning environment and they really enjoy it. Sometime they can retry the question that they answered wrongly. For after class practice, usually I use Quizziz so they can redo the practice exercises that I gave them during the class so they can redo it again until they get full marks. So these are the tools that I use for my online teaching.

Interviewer: Okay, so all these tools that you mentioned. Um…how were the students' responses? Just now you did mention that they enjoy it, but uh how are their participation levels like? Were their levels high or low or is it hard to engage?

Participant 1: Mmm…it depends for the, I mean for like junior students, some of them they'll…some for the first time when use the tools, you need to guide them first. Like, show them how to use the tools for the first time. Then later, slowly when they get used to it, they are able to use it themselves. For senior students, basically they are better than us when it comes to uh technological stuff, right? So, first we need to like really guide them, show them how to use it. Once they are…once they get used to it, then, things flow really good. It-it-it's better when I start using the tools right? I can see that they are willing to participate instead of nodding off. Because uh…most of the students they are not willing to turn on the videos. So, we are not sure if they are there or not. So, the only thing is when you put the link like for Quizziz or Kahoot right? At least they click, we know that they join the uh…the games or anything. Then we know that they are doing, cause we can see their responses. They type anything or not. So, at least from erm my side I can see that, okay they started to participate the class. Umm…attentively and I also do some feedback or ask them "do you like this", "do you enjoy this", "do you think it's easy for you to use it" because if its very hard for them to erm use the tools right, sometime they will give up. They are not willing to join the games at all. So basically as long as the…the interface easy for them to use, we can see that they are more students that are willing to participate actively in the class. And you know right, English is their second language. Sometimes we need to use a lot of interesting stuff to…to make…to make them interested in the learning. So, for me, I can see that they have tsk how to say…they are more motivated in learning English.

Interviewer: Just now you mentioned that like if the tools are easy, the platforms are user-friendly, then they would be more interested to learn. The tools you have listed and have used so far, do you think they are user friendly enough for the students?

Participant 1: It also depends on what device they use. Like if they use a laptop or mobile phone to…I mean to access the apps, it's very different. For me, I think Quizziz? Quizziz is okay. For me Quizziz is okay…uhh yeah, Quizziz is okay. The other one, I'm not sure. Because for the whiteboardfi, I guess, its quite inconvenient for some of the students. For that one, if they want to use the…you mean the handwriting right, they need to have the touchscreen to write it. They find it very difficult to write because maybe the tools, the things are too small on their phone. Because most of them they use their mobile phone to…to join the online class. So maybe the screen is too small, its very hard for them to use. And they have to how to say…they have to switch back to here and there, so they find it very complicated to use it. But for the other one, like padlet, quizziz, Kahoot, its still okay but sometimes they also face another problem. It's the internet connections, internet connection. It use a lot of data when you have umm like quizziz it will use a lot of data and sometime it will tsk somehow their line is breaking up so its very hard for them to use it because of the internet connection.

Interviewer: So mainly, internet connection and devices are the main issue they faced when erm trying to attend classes right?

Participant 1: Yayaya, that's the main issue that our students face. Because some of them live quite far from the city. So I guess their internet network coverage there is not good enough? Yeah.

Interviewer: How about from your part when you are teaching, what type of challenges do you face when you use all these ICT tools to teach English. On your end.

Participant 1: Erm okay. Challenges is basically I myself need to search for the information online. In the beginning, actually we are…we were not trained to use all these. We just uh look up ourselves and try to put all these things inside our teaching because we think that erm, we need to improve our teaching. We need to change another way to teach. So first thing is we need to learn it ourselves. We need to uh really use it, try it and see if it works? For me, from my side this is, first thing is I need to learn. I need to make sure that this is good for my students. Second would be the internet connection, before I use my old laptop, there will be ve- it will be very problematic because how to say, it cannot support when I have a lot of apps or anything right, its very hard to support because it will be very slow and I also need to turn on my video so it will slow down the speed and its, it will make the class how to say, somehow just technical issues, right? Like its not very smooth, sometimes I will lag or anything. So second would be the internet connection. And third would be probably the devices erm as teacher when we need to upgrade our devices so we are able to make sure that our online class erm go smoothly. Yeah. Let me see, yeah I think that's the challenges and also sometimes if its about students, there's another challenges that is we-we couldn't see them. They uh-were be very shy, they were not willing to say something even though you ask them to open their mic, to turn on their mic, they are quite shy. I mean that is the challenges, but the good thing is that through the ICT tools right, those who were very shy, at least they were willing to type something. We have the chatbox right, so its quite useful that they are willing to type something to share their thoughts, even they can share something on the google classroom so as teachers we are able to follow up what is the students are thinking. Yeah whats the problems they are facing. So I mean there's uh goods and bads but from my side I think that even though its quite challenging, but its uh- I mean it's a good. I would say

it's a good thing because after the pandemic, when we come back to school right? sometimes we still, can still really use what we have learned during the online learning, we can somehow apply it in our teaching because nowadays in school they use uh smartboard which we can connect to the computer directly, so we can still use all these app to make the, our conventional teaching, the so called conventional teaching interesting. Yeah.

Interviewer: How about in terms of teaching strategies, pedagogies, do you feel like you were very limited in terms of using different strategies to approach the students and to make sure that whatever you're teaching comes across to the students because of the ICT tools? Do you face any issues like that?

Participant 1: It still depends. It depends of course it is better if you are able to teach face to face. But I would say that erm, it doesn't really limited me. But instead I can find out new ways to teach. It makes me explore a lot of new way to teach my students. As nowadays they are more I would say, they are more interested if you use some kind of apps. It gets them engaged in their learning. So, I don't think it really limits my teaching but actually I am able to explore new way to teach, which is more suitable to the current students.

Interviewer: Another thing is about student engagement. Just now you did mention that the students when they type in the chatbox, you can see also in Google Classroom how they are but what about their progress. Could you assess their progress? Did the ICT tools limit you in that way?

Participant 1: In terms of their learning progress, umm, we face some kind of…we face some kind of challenges. Because sometimes we don't know when they sit for the test, like umm…the school formal test right? It's very hard for me to make sure that they don't cheat.

As you know, they can send answer to their students even yeah, I haven't figure out a really good way like how to prevent them from cheating. The only thing we can do is there are some ah, like google form right, we can rearrange the order of the questions. Like different student they get different order of the questions. We can only reduce the risk that they-they will be cheating, right? But we-we-we cannot 100% prevent this from happening so they'll-they will be the issue of unfairness that when we got the result we-we are not sure if this is the result that he/she should get. That's-that's-that's one point, s-so-so my way is, I just urm, change the way I set the questions. So that the question is not that directly, its not like the direct answer. I'll make it like kind-I would say something like uh…you know HOTS, something like higher order thinking skills all that. You change it another way but you ask them you can open book. So they can look for the internet online, but at the same time you have to make sure that the question everything that you set, they can't find the answer online. I mean directly. So they have to think, so this is a way to prevent them from cheating but also urm we can see how good they are. So I would say it's very hard for me to say that if I have really urm…how to say…assess their learning progress. If like what they have learned, not in term of the test, yes we can see that. We can still see that yes they have learned this, they mastered this right? But we cannot 100% sure that they really…they're really good at it. Unless they come back to school and they sit for the test without referring to anything. Then we will be erm very sure that they have uh master this uh knowledge.

Interviewer: Since you're already back to physical class, would you say that the methods you used during the online teaching was effective?

Participant 1: I can see that for those student who were really hardworking during their online classes, I can see that when they come back to physical school right? They…not physical

school, physical classroom right? They really appreciate what they have. You can see that it motivate them to learn. Even though they, at the moment, they cannot get good result but at least they are interested in learning English. That is what I can see. I can see that because on-one of my class, most of them they are really weak in English. Like urm, there are around 28 students, and like 10 students they are really weak in English. At least, it somehow motivate them to learn. At least nowadays when they come back, they are willing to learn. They know that okay I can learn it, there's a way for me to learn. I mean it motivate them to-to learn. It increase their learning interest. That's what I can see and they really miss those apps. Because nowadays they can't bring mobile phones right? So they'll say "Teacher why can't we play the quizziz game? I really miss it," but it's not allowed for the students to bring mobile phones to school right? So its very hard for us. So just, so I can say that they really enjoy. They think that it helps them to learn uh faster and also more efficiently because they say that they can always uh revise it again and again. So that's what I can see in my students, at least they are yeah they enjoy it. They enjoy it very much.

Interviewer: Do you still have any other challenges that you would like to share?

Participant 1: Challenges? Urm...maybe because of these two years pandemic, you can see that the learning of the students are affected in some way, consider their level of English is quite…I would say weak because of the pandemic and also their…I would say their mental health is also affected. So this is the current challenges, as teacher we are facing now like how to boost our students so they are able to catch up with the current lessons. But overall I would say that in the future as teachers, we should actually use the IC-ICT tools in our classroom teaching. Like we cannot really omit the technology part, uh because right now everything is you know, we have to be, as teacher we have to be tech-savvy. Because this is

what the student like, they are born in this kind of I would say ahhh…generation. When they were born, all these technology stuff comes naturally to them. So if you are able to use all these tools in our future teaching, no matter its online learning or classroom teaching, we have to use all these tool. So that our students they will-they will learn better. This is what I can see in the future. Yeah.

Interview Transcription – Participant 2

Interviewer: Did you explore various ICT tools to teach English during the online teaching period? And what were they? Could you list out a few and how did you use it?

Participant 2: erm I used Google classroom, Google Meet. Do these count?

Interviewer: Ah yes, of course. As long as its anything related to technology they are considered.

Participant 2: Okay. Actually does your study include hybrid classrooms?

Interviewer: Could you explain how is the hybrid classroom like?

Participant 2: Uhh for hybrid classroom, I'll be teaching in the school. I'll have an interactive whiteboard. There'll be maybe half the class will be in the classroom and half of the class will be joining from home.

Interviewer: Oh okay. Yeah, that is actually considered.

Participant 2: Okay ah, I have experienced both hybrid classroom and pure online teaching and those were some the things I have used. Uh Google Classroom, Google Meet and the Interactive Whiteboard. And I also used uh Youtube frequently. It was a lot easier to use Youtube to show them videos.

Interviewer: So, you just play videos during class, is that so?

Participant 2: Ermm it's easier to demonstrate what I am talking about (internet disruption)

Participant 2: For Google Classroom right? I have all my students in the classroom and then I will upload the materials that we go through. Uhh…and sometimes uhh…we have students who don't have books yet because the textbooks are not in stock. So I have a soft copy that I

can upload in Google Classroom and that gives all of them access to the materials. And then for Google Meet, uhh that's for the actual lessons. I will share my screen and then I will conduct the lesson.

Interviewer: When you conduct your lessons, you mentioned that you will use materials from YouTube right?

Participant 2: Not just Youtube, I will have the textbook opened and I share material from the textbook and I will supplement it with maybe some videos or some infographics from google. And its easier to show this compared to uh physical classes when you have to prepare all these things way in advanced.

Interviewer: So do you use like other platforms? Like to give them tests or games or anything?

Participant 2: Not so far because all our tests have been through google meet or physical.

Interviewer: Do you use any Powerpoint slides or mainly just erm open the textbook, the softcopy which you mentioned?

Participant 2: Oh actually yeah I do have slides. Erm so I also use erm Google slides and Google Docs for exercises.

Interviewer: How do you use Google Docs? Can you explain?

Participant 2: Uh for Google Docs, I would source for material or exercises online. And then I will compile it and I'll just put it in Google Docs. And then I'll give access to my students so they can do the exercises from home. It's actually extra uhh extra homework for them.

Interviewer: So how would you describe your students' response level and participation level when you use all these ICT tools to teach online?

Participant 2: Okay uh compared to physical lessons, I feel like they were less inclined to participate. Erm…they were very shy to unmute themselves and answer questions unless they were really forced to. And uh…it was a lot harder to try to elicit responses from them.

Interviewer: What about like in terms of giving them homework, how are their participation levels when you use these tools for online classes?

Participant 2: Also lower, because uh its probably all the distractions around them at home. So sometimes uhh mid-lesson the student will disappear to go to the toilet or to-to uh-not sure what they are doing but they would disappear sometimes. And then we will have to constantly check if they are there and whether or not they are not listening.

Interviewer: So how do you check whether they are there listening if they are shy to respond? Like you mentioned that they don't open their mic and all that.

Participant 2: Because there is a chatbox at the side, so I will call their names and I will ask them questions directly.

Interviewer: So when you force them to then only they will participate. Is that so?

Participant 2: For most of them yes, but if I insist that they use their mics, most of them would lah.

Interviewer: Regarding all these tools that you have used, are your students able to use them? If yes, how? If no, then why?

Participant 2: Uhh they do know how to use it. Erm, for example for Google Meet they can raise their hand if they have a question or if they would like to answer. So I erm, I would tell them like if you don't understand anything please raise your hand. And some of them would utilize this function.

Interviewer: What about those that don't? How do you find out more about their progress and all that.

Participant 2: I actually go through the name list and I try to get every student to participate by asking them questions.

Interviewer: Then how effective do you think all the ICT tools that you had access to and you could use were?

Participant 2: overall, they were so so for me. I would still prefer physical classes. I find physical classes to be more effective and its easier to keep them focused in class when you have eye contact and you have your gestures and non-verbal communication.

Interviewer: You mentioned non-verbal communication so does that mean that you can't see the students during online class?

Participant 2: Oh yes, that was also another issue. A lot of them would say that they have bad connection, or they don't have a webcam or their webcam spoiled. Lots of excuses lah.

Interviewer: Even with these challenges, do you think that your teaching during online was effective to them? How was their learning progress?

Participant 2: I think to some extent it was okay but still physical lessons brought about a lot more progress.

Interviewer: For the final question, what other challenges have you encountered when you use ICT tools to teach online English during the pandemic?

Participant 2: The most obvious one is not having a good internet connection. Erm sometimes some of them would just uh…would uh…how to say…would leave Google Meet and they'll try to come back in but get kicked out again due to the internet connection. So…and sometimes…uhh from my side if the connection is bad then they won't be able to hear properly what I'm saying either. Another thing is all the distractions during online lessons, uhh I think quite a few of them would attend lessons from their living room so when they…if they unmute themselves you would hear their family members talking in the background or they will be pets barking at the background. And all these are just very big distractions that you wouldn't otherwise have in a physical classroom.

Interviewer: What about urm in terms of urm your teaching strategies. Do you think that ICT tools limit your teaching strategies? Or perhaps lets say the pedagogies that you wanted to use but because of the limited ICT tools and internet connection, these challenges, you could not perform. Do you face any situation like that?

Participant 2: Hmm no. It actually helped with it. As I have mentioned, I use…I have started using more videos and more visual aids when I'm teaching. And especially in the hybrid classroom, I can use the interactive whiteboard and just show them uh uh for example videos or audio recordings. Okay, I can test them on their listening skills. Mmm yeah so I'd say I'm still benefitting a lot from ICT tools despite the bad connections and all that.

Interviewer: You did mention that you would go through the list of students and call each of them to make sure of their participation. Do you think it was very time consuming in a way because of a lack of functions from the ICT tools to track the students' engagement and progress?

Participant 2: Yes, for sure. So online when you ask them a question, they tend to take longer to answer the questions whereas in class when you ask them a question, they are able to answer a lot faster. So I feel a lot of time is wasted there, waiting for responses.

Interviewer: Do most of your students open their camera? Or most of them don't?

Participant 2: Uhhh at the beginning they would open their cams but towards the end they would not and it's a mixed batch basically. For some classes, they were okay with turning on their cameras and for some they just give a lot of excuses.

Interviewer: Are there any other challenges that you faced when using all these ICT tools?

Participant 2: Mmmm, I feel like they are a lot of advantages for sure. Uhhh…errr…uh…how to say…I was able to diversify the way I taught my students. Ermm…and yeah the visual aids certainly helped a lot. And I was able to show my students a lot more interesting things to keep them engaged and to keep them motivated. And I feel like my students enjoyed my lessons a lot more compared to a few years ago before online learning.

Interviewer: So overall you'd say that um using ICT tools still is a better option and less challenging to conduct English lessons. Is that so?

Participant 2: Ermmm…well… the disadvantages are bad internet connections. But overall, yes I would still say ICT tools definitely helped.

Interview Transcription – Participant 3

Interviewer: So we'll start with the first question. Did you explore various ICT tools to teach English during the online teaching period? What were there.

Participant 3: Uhhh basically we-we were brought into the pandemic uh eh quite suddenly. And then we were required to transfer the teaching mode to online mode. So, we have uh w-we-we were given a week or two to actually try out. The first level or the first stage was through Facebook. Ah through Facebook. We're supposed to use that platform, we use that platform, and then connect it to live, okay? Facebook live and then we teach, and we will present our slides through Facebook and then we invite, we created these uh groups and new account okay, according to classes, then you invite the students one by one using their accounts. So, it was quite tedious. Kay? Because some of the students they claim that they have not received the invitation uh that we have sent out so uhhh quite a lot of them, at least 30% of the population, Okay? They failed to attend our online classes, so that was a problem. And after that, of course the uh exposure, or the introduction to the Google Classroom, that helps a lot, that changed a lot of things actually. So we have Google Classroom, we have Google Meet, i-it's a comparatively, a very reliable and more stable platform I should say. Because uh we can actually invite students via email addresses, and then we can actually call them and then we can upload our materials. That's one of the most important thing, because through Facebook okay, they have limited uhh what we call, not database, ermm ah size that, size of the file that we could upload. So, say for example if my presentation slides uhh contains videos, audio tracks for listening purposes then it would maybe 50mb or 60 megabites? So they have a limitation via Facebook, okay? We can only upload up to a maximum of 9mb, so that creates a lot of yes complications as well. But for Google Meet, uh it has more space, more options for us to upload our files. Uh we can share materials, we can mark our homework and we can use the jamboard. And then we can play videos as long as

their internet connection is stable, then everything could be done smoothly. The lesson can be carried out smoothly. Mmm.

Interviewer: So, you would say that Facebook was very limiting in a way that the materials you could only upload a very small file?

Participant 3: Yeah usually we would have to compact it. Of course we have to take out a lot of things which we think could be useful information. Its not really, what we call reasonable. Not really uhh credible in a sense.

Interviewer: How about other aspects, such as like slides. Do you just use Microsoft PowerPoint or do you have other platforms that you use?

Participant 3: Uhh Initially, I used Microsoft Powerpoint, but uh I tend to attract students' attention with more colourful slides. Uh better templates, I uh, I realise that from my personal experience with the WPS. Okay, WPS supports more colourful or lively or vibrant templates. They have more options as well.

Interviewer: Okay, then what about in terms of like um exercises and homework? Do you just upload a pdf file or is it a word file? Or do you use collaborative items like Google Docs?

Participant 3: Ummm basically what you have just mentioned, we've used all of those. It depends on the format of the documents. Sometimes when we actually search online it comes in pdf form, it doesn't work. Then maybe we convert it into word or excel or notepad. So there are various format which we have used. But I think, the most common and the most convenient format would be pdf from my side.

Interviewer: How about exams? Do you use any ICT tools for exams? Any platforms?

Participant 3: Uhh exams, now from what I remember was we carried out exams through Google Meet as well. So we set, we scheduled the paper, we upload the paper and schedule according to each slot, pick the time slot and then it will be available. Say for example 1st of July, okay English language paper 1 starts at 2. And then ends at 3.30 so before that, a week after before that we upoloaded the papers and then we schedule the paper to make it available and of course a long with that, it has to include very detailed instructions on the ways to use it for the students. So that they know how to navigate through the papers. And of course on the submission problem. And that actually creates a lot of problems as well. Although we told them okay you can submit your paper, it should be in word form or pdf form, okay? or image, okay especially for mathematics say for example. But they give the, it could be the excuses but its also reasonable that they would say, uh teacher I can't upload my answer, I can't submit my paper because uh the internet connection here is unstable. Because we give them time limit, you have to submit 15 minutes after uh the exam ends. So uh that creates another problem as well.

Interviewer: Regarding exam, would you think that the ICT tools and the platforms that are available which you used also, they are limiting in a sense that they can't really keep track on time limit like you mentioned just now? and also you can't tell whether students are cheating or not.

Participant 3: Mm yes. Yes of course. That's why the results, we tend to make adjustments. And make it formative assessment instead of summative, so that it includes, say for example the exam would be thirty percent, homework 20 percent, and then uh small test or quizzes 15

percent, ah things like that and attendance. Uh uh so that it won't adjust too much. Because apparently we-we-we know that some of the students, we are very familiar with their level, with their standard, apparently the essay it doesn't reflect how they perform because once we are able to detect plagiarizing, they would actually deny. But the thing is, we can't in a sense catch them red handed, that's the problem. Yeah uh so uh the next round of exam, we actually uh make it compulsory for each student to turn on their camera. Chuckle and there are certain rules that we applied which means that we angle, your camera has to show your face, your pen and your paper on the desk. So that we can see if there is other devices or material lying around them. But of course, kids nowadays they learn fast. Things like that they learn fast compared to academic content of course, so they might have extra devices lying around or sometimes uh accidentally we have cases that we overheard parents telling them answers because uhh say for example the essay is on an autobiography of a pair of shoes. So, the student will ask the parents to google, okay, to google the essay and read it out for them. And we actually caught one student red handed which is very interesting because we uh uh the entire process is, the the class, the classmates were actually listening to the same exam like just now. So that is one interesting factor as well. So, I think the roles of parents are very crucial because they allow this uh attitude to be carried out. And they actually know that conning or or cheating in exam, it is improper to do it this way but um maybe out of uh mere affection that they actually, they try to help, to justify their stand. I don't think online exam is uh credible.

Interviewer: First time hearing such interesting stories. Maybe we can move on to the next question regarding all the ICT tools you have used, how would you describe the students' response and participation level?

Participant 3: Uhh I would say that maybe during physical classes we can see how they laze around and they would just doze off. Again but uh maybe during classes we have to show our slides and it has to be in fullscreen uh to enable them to see the slides clearly. So its quite difficult for teachers to navigate between slides and their camera lenses okay every now and then because that would just disrupt the flow of the lesson. Okay, so most of the time, ermmm we try in a sense, psychologically to think that okay, I believe my students would be paying attention. Okay, I trust them. So we have more frequent interaction in a sense that because every now and then I would ask questions. So I will ask "are you paying attention", "what is the answer to this question?". That questioning and answering session, the q&a session eventually it becomes, it take up a lot of time, okay online. And so that's one case. okay that's one side. Another side would be, the teacher would progress faster through the syllabus. Because no one is giving any response and no one is actually disturbing or interrupting the class, okay? They will just turn on to prove that they attend the lesson. And that might be lying in their bed, eating their lunch or whatsoever, it is happening, playing games with another phone. So there's no noise, not much physical fusses so the teacher will be teaching and teaching and go on teaching, continue teaching so for us, as teachers, we were able to cover the syllabus much faster than uh expected but of course the outcome, like what you have asked, uhhh its uh its not really sound in a sense.

Interviewer: Have you managed to use any other uh platforms or any other ways to maybe sort of like engage the students, to know that they are participating in class? Have you tried anything like that?

Participant 3: Uhmmm sometimes we play games, sometimes I show them videos on uh say for example riddles, okay? And then uh, we have games say for example spot the different

word in the category or two for example. Ah then, it will actually initiate some interaction there. But uh as usual we realise that students' concentration, a little time of their period of concentration is very short. Uh in a way we have to give out a lot of ways to navigate between games, quizzes, riddles, and you know the actual lesson, giving them exercise. Sometimes if the lesson is around uh 70 minutes, because in our school, 35 minutes is one period. So if I have to periods, then in between I would play a video. Say for example an educational video on uhm kindness or happiness. Okay? To, as a form to motivate them to learn. Ah, so I can distract them for a while. So that they can focus on their studies again after the short video clip. These are some the ways I will use during online classes.

Interviewer: Did you use anything for your quizzes? Or do you like just show your slides? Or do you use kahoot, quizziz or any similar platforms?

Participant 3: Uhh actually we tried uh these Kahoot and Quizziz but the problem again is the stability of the connection. For us, when we start the question it can flow smoothly. But for some students, somehow maybe due to the uh poor connection, they weren't able to view the questions. So uh if we were to confront them and ask Oh why did you not answer your question? You have not sent in your answers through the chatbox, and then they will just take uh their erm smartphone okay? Capture the screen and indeed, they were unable to do the question. There is nothing there on the screen, just the layout of the Quizziz. So, we find these kind of problem as well. Another way that I use, okay so as to train their listening skills, I would read out the question. I would narrate the dialogue, a conversation. And then they would write down the answers. So that is another way. So, we do some roleplay and then I have to act in different types of voices. Maybe one or two sometimes, because it's a dialogue.

Interviewer: You already described how you can use Kahoot and how was your experience. How about other platforms? Were your students able to use it? If yes, then perhaps you can explain how and if no, then why can't they use those tools effectively.

Participant 3: Erm okay, in a sense it would be erm. If I divide them into different categories, uh we are clear that students are divide into different classes based on their capability or academic proficiency. So, if I were to teach students from the first class, of course they are better. They catch up fast, they can cope with the lesson. So, they can follow instructions faster compared to the students from the last class. Mm so that is the difference okay? When it comes to their proficiency level. Another thing is that, some students they tend to ignore instructions. And then at the end of the day, they will just tell you uh "why are you not participating?" Okay so, the answer is very blunt, "Oh I have attended the class, okay? I stay in the class. What more do you want from me?" Its actually very strenuous on them, it strains a lot of their, it drain a lot of their energy because they can't stay put. Every teacher who enter the class would require them to stay put. So from 7 o'clock until uh Pei Min here is 10 minutes past three, they have to be there except for recess time. If they were having physical class, then we could require them to do activities. Okay, every now and then they are allowed to stand and answer questions. They can go to washrooms, okay? things like that. But the thing is timing is one very crucial thing. You will find out that or realise that why is it that everytime when I need to visit the washroom, the teacher call out my name and ask me to answer questions. But when I'm sitting still in front of the screen, in front of the computer, no one wants to ask me a question. And then when I think, okay I'm safe now, I can stand up. Maybe grab myself a cup of coffee and suddenly the teacher will be asking say for example, Lelia once, Lelia twice, Lelia thrice and then they have a rule, okay I called you out thrice. Okay? And you didn't respond yeah you are absent. So that is what makes them frustrated as

well because uh they are expected, they are required to stay put. So I think from their perspective, it-it-it's a little bit unfair and uh exhausting as well.

Interviewer: So this would definitely affect your teaching as well right?

Participant 3: Mmhmm yes, because I keep calling out names. And maybe I'm very good at picking out students who are not in their seats apparently, so it happens. But actually maybe out of that 35 minutes, the 33 minutes he has been there. But I'm using 10 seconds to call out his name three times. It in a way isn't really fair for that students as well. So slowly, teachers they realize the problem as well. So we tend to say for example give the window of 5-10 minutes, after 10 minutes we will check their attendance again. Then maybe that is a better way. After 10 minutes I will call out again, "Okay Lelia, I'm checking again if you're still there? You said you just went to the washroom so I think 10 minutes is enough." then you might be answering "yes teacher I'm here." Then, we would consider that the student is actually present. Uh in a way, flexibility counts. A lot, of flexibility. We have to stand uh from the student's position to understand how they feel and uh in a way we try to hope or wish that students could cooperate with us as well. So when we guide them, say for example to use the ICT tools. Most of the kids they are very fast at it. Nowadays kids, th-they learn fast especially when its not academic. Seriously, honestly. Oh teacher I know that jamboard. Oh teacher, that's Kahoot I played with that. Oh quizziz good. Ah yes, but of course when it comes to answering the questions in Quizziz maybe they'll give all the wrong answers.

Interviewer: So just now you mentioned on the flexibility of 5-10 minutes later you'll call their names, do you think this takes up a chunk of your teaching time. Your actual teaching time, like is it time consuming to do this method?

Participant 3: Yes, it is very time consuming and then its very tiring on the teacher as well. Because we have to train or try very hard to uh learn how to manage our emotion. Because you feel like they are tempting you. If there is no response, you feel like students are actually ignoring your questions and they are not paying attention and that makes you frustrated. But that's because everyone is new to the online learning environment. So that's why after a time, we jot down our feedback, our reflection and we from there, we learn how to adapt and adjust our teaching method. And then we learn how to be more flexible so that it won't pressurize the students too much. And ah at the same time, for us psychologically its gonna help. Or else, both the teachers and students they will be very stressful.

Interviewer: Then I guess we can move on to the next one, so for all the tools you have used, how effective were they for you to teach English?

Participant 3: I would say that without ICT tools, uh online learning or online classes are basically, literally impossible to be carried out. Okay, with ICT tools, it certainly helps a lot when we teach English. English of course is a flexible course and it covers a huge scope actually. So for us, we have more things, okay? More materials because we can focus on four different skills: reading, writing, listening, speaking. So if I need to train them speaking, I can just ask them questions okay? and then I will choose two students to role play a conversation, okay? Or give them general questions to train them to answer complete sentences as required by the CEFR. So, ICT tools for us, it is very convenient. And most of the time, I think uh mine will rotate uh revolve around videos and audio tracks, slides. Once in a while I will give them a song. Say for example, a song and then you're supposed to detect or identify the verbs in the song. The parts of speech, yeah. It helps a lot. If we don't have all these tools and

equipment, it-it can, its just a dead classroom actually. The variety is actually the key here. Because they get distracted easily, that's why.

Interviewer: Then we can move on to the next questions, which is what are the challenges encountered with the use of ICT tools in your online English teaching during the pandemic time?

Participant 3: I guess it's the unfamiliarity with it. Because erm, starting from our academic years when we were students up to just two years ago, all our students they were exposed or classes were carried out physically. So when this pandemic hit us, everything changed and we have to adapt to the change. And it happened immediately. We are not used to all these things and uh for teachers especially, those uh senior teachers who are not very familiar with these uh ICT tools, they face a lot of problems. So we help each other out actually. For example, how to turn on, how to share the link, how to create a meeting room like this. And how do you direct or instruct the students to key in the class code or the class password. Uh all these things we have to learn from A-Z. And in fact, till this point this day, we are still learning so that we could be well prepared, uh touchwood haha, for the next pandemic or maybe the change in our education. Then we might need to adapt online learning in the nearest future. So we, in this way, it helps us to be prepared. But when the pandemic just started it actually forced us to be prepared. The stress is there, but now we train ourselves every now and then and maybe try to request the school to have training courses so that we have ICT experts or professionals to guide us. Okay? What can we use, okay colourful things or how to make your classroom or lesson more interesting or go on smoothly. So these are all the things that we encounter along the way. But we get frustrated, and then uh sometimes when you want to share something, say for example the video, its not-its playing but there's no audio and then

you have to check the settings and then change it to stereo mix and then once the video is done, we thought the setting would bounce back to microphone and then we keep talking talking talking and suddenly the students were like 老师没有声音, you're muted. Oh okay okay okay okay. So all these things, we have to be very optimistic in a sense. If you get very pessimistic and stressed over little things, it actually will give these-these students and the teachers a hard time. So after a few attempts, I uh prefer to stay optimistic and and try to solve the problem step by step. Mmm I think actually online learning is interesting but maybe it could be half half. Not everything uhh should be carried out online. Like we have face to face interaction with the kids, and then uh sometimes online teaching say for example when we're giving extra classes, and now it works as well. Say for example if the teacher, okay the teacher that is uh tested positive, isn't it. And then he or she won't be able to attend to school but we hope that we could teach the students to they can just turn on the tv. We have the uh smart interactive board in every class in Pei Min here. So, connect to Google Meet then there you go. You can see we have our class. Mm so its convenient in a sense I would say. It's like we have to absorb the advantage and try to solve the disadvantage so we can see the good in it haha

Interviewer: Are there any other challenges that you would like to share?

Participant 3: Oh yeah, sharing and teaching the syllabus? I would say that teachers who are teaching online, are actually the ones who improve a lot. We teach and we learn. But I guess the students they don't learn as much as compared to physical class. Cause when you ask 明白吗？ Ah yaya, yes teacher, yes teacher. But during uh maybe quizzes time, uh it doesn't show any positive result. So uh the absorption of the knowledge is the key here. They won't be able to absorb as much because in the class, I would go to their seats/table knock knock,

ha! Wrong answer. Then it-it kinds of activate in your mind that I made a mistake, but online, not as much cause yes, I can’t really see them as well.