

**EXPLORING ENGLISH LANGUAGE TEACHERS'
DIGITAL PEDAGOGY PRACTICES,
CHALLENGES, DESIGN AND COMPETENCE AT
MALAYSIAN UNIVERSITIES**

MARYAM BINTI MOHAMED AMIN

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by

MARYAM BINTI MOHAMED AMIN

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LIST OF ABBREVIATIONS

TPACK	Technological Pedagogical Content Knowledge
CoP	Communities of Practice
ICAP	Interactive, Constructive, Active, Passive (Activities)
DigCompEdu	Digital Competence for Educators

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EXPLORING ENGLISH LANGUAGE TEACHERS' DIGITAL PEDAGOGY PRACTICES, CHALLENGES, DESIGN AND COMPETENCE AT MALAYSIAN UNIVERSITIES

ABSTRACT

Malaysian university English language teachers experience pedagogical challenges in online classes every day. The problem with teaching language classes online 16 hours a week is figuring out sustainable digital pedagogy practices, designing effective learning activities, and acquiring high digital pedagogy competence. This study uses a mixed-method explanatory design to investigate teachers' digital pedagogy experiences at three Klang Valley public universities. A pilot study ensured validity, reliability, and generalizability. In the first data collection phase (quantitative), a survey questionnaire was used to gather data from 88 university English language teachers at three public universities. In the second phase (qualitative), eight (8) teachers from the survey were selected based on their digital pedagogy competence. Data were analysed using SPSS for descriptive statistics and NVivo 12 for thematic analysis. Findings reveal that teachers face challenges in pedagogy, technology, and digital subject content development. While teachers' digital pedagogy practices are commendable, student participation and engagement remain problematic. Teachers actively design interactive learning activities, yet many require training in personalisation and differentiation. Most demonstrate competence in empowering learners and assessments but need support with digital resources and online teaching and learning practices.

**PENEROKAAN AMALAN, CABARAN, REKABENTUK, DAN
KOMPETENSI PEDAGOGI DIGITAL GURU-GURU BAHASA INGGERIS
DI UNIVERSITI-UNIVERSITI MALAYSIA**

ABSTRAK

Guru Bahasa Inggeris di universiti awam Malaysia menghadapi cabaran pedagogi dalam pengajaran dalam talian setiap hari. Masalah utama dalam mengendalikan kelas bahasa secara dalam talian selama 16 jam seminggu adalah dalam menentukan amalan pedagogi digital yang mampan, mereka bentuk aktiviti pembelajaran yang berkesan serta memperoleh kemahiran pedagogi digital yang tinggi. Kajian ini menggunakan reka bentuk penyelidikan *Mixed Method* berbentuk penjelasan untuk menyiasat pengalaman pedagogi digital guru di tiga universiti awam di Lembah Klang. Kajian rintis telah dijalankan untuk memastikan kesahan, kebolehpercayaan dan kebolehlaksanaan dapatan kajian. Dalam fasa pertama pengumpulan data (kuantitatif), soal selidik digunakan untuk mendapatkan data daripada 88 orang guru Bahasa Inggeris di tiga buah universiti awam. Dalam fasa kedua (kualitatif), seramai lapan (8) orang guru telah dipilih daripada sampel tinjauan berdasarkan tahap kompetensi pedagogi digital mereka. Data kuantitatif dianalisis menggunakan perisian SPSS bagi mendapatkan statistik deskriptif, manakala data kualitatif dianalisis secara tematik menggunakan perisian NVivo 12. Dapatan kajian menunjukkan bahawa guru menghadapi cabaran dari segi pedagogi, teknologi, dan penyediaan digital kandungan mata pelajaran. Walaupun amalan pedagogi digital dalam kalangan guru adalah terpuji, tahap penyertaan dan penglibatan pelajar masih bermasalah. Guru sentiasa mereka bentuk aktiviti pembelajaran yang interaktif, namun ramai dalam kalangan guru memerlukan latihan lanjut dalam aspek pemperibadian dan

pembezaan pembelajaran. Kebanyakan guru menunjukkan kompetensi digital dalam aspek pemerksaan pelajar dan pentaksiran, namun masih memerlukan sokongan dalam penggunaan sumber digital serta amalan pengajaran dan pembelajaran dalam talian.

CHAPTER 1

INTRODUCTION

1.1 Overview

Governments and Ministries of Higher Education acknowledge that the 4th industrial revolution impacts future teaching skills (Abdulrahim & Mabrouk, 2020; Chung et. al., 2020; Crawford et. al, 2020; Menon & Castrillon, 2019). Higher learning institutions, however, have not fully embraced digital pedagogy skills as foundational skills on par with oral, written, or research skills. Most universities take digital pedagogy skills for granted or assume that teachers are competent in teaching online, blended or hybrid classes (Barnes et al., 2021; Murray & Perez, 2014; Sithole et al., 2019). Rather, digital pedagogy skills should be assessed, remediated, and amplified.

Empirical findings reveal that higher education teachers lacking digital pedagogy skills tend to design passive learning activities such as long online lectures (Anderson, 2020; Pablos, 2022; Zhang, 2021). The teachers may lack digital pedagogy skills or time to create engaging and interactive online language lessons. While there is nothing inherently wrong with a passive approach in teaching and learning, it begs whether university students learn as effectively in online classes as they would in physical classes, thus jeopardising the quality of English language online education at Malaysian universities.

Digitalisation, thus, entails new challenges for university teachers. It has increasingly brought a new dimension to pedagogical skills and technology, referred to as digital pedagogy. (Beetham, 2019; From, 2017; Zhang & Yu, 2021). “The concept of digital pedagogy competence refers to the ability to consistently apply the attitudes, knowledge and skills required to plan and conduct, evaluate and revise on an ongoing basis, technology-supported teaching based on theory, current research and

proven experience to support students learning in the best possible way,” (From, 2017, p3). The Digital Pedagogy Competence for Educators frameworks such as the ones created by researchers in the UK (JISC, 2022), Europe, DigCompEdu (Redecker, 2019), Spain, INTEF, Cabero, 2022) or ICT for Teachers (UNESCO, 2018) was designed in a concerted effort to achieve digital pedagogical competence in higher education but are currently underutilised at Malaysian universities.

Researchers must identify the pedagogical value in specific digital teaching and learning environments by examining subject-specific successful examples from experienced online teachers (Anderson, 2020; Sherer, 2021). Understanding Malaysian university English language teachers’ subject-specific digital pedagogy practices and challenges, design of learning activities, digital pedagogy competence strengths and weaknesses, can offer valuable insights for enhancing the quality of online language education at Malaysian universities.

1.2 Research Background

Higher education teachers were tested beyond their teaching capabilities when the COVID-19 pandemic reformed the education landscape, as teachers were forced to become digitally competent in weeks. The year 2020 witnessed the world population of eight billion people locked at home for protection against the deadly Covid virus. The most significant source of stress for higher education teachers was teaching online, remotely, and beyond university walls with little to no experience. Tech-savvy teachers who had integrated online teaching in their classrooms before the global catastrophe also had trouble adapting to online teaching and learning (Bygstad et al., 2022; Crawford et al., 2020). University teachers worldwide were tasked to master

online teaching fast, including the ability to design online learning activities and assessments.

In Malaysia and other countries, university teachers were further burdened when many students reported limited ability to access the internet, which caused them problems accessing online classes (Kelvin & Tan, 2020; Ma et al., 2021; Mishra, 2021; Wong & Moorehouse, 2021). This spurred Malaysian university teachers to swiftly adapt to various digital teaching and learning platforms to ensure no students were left behind (Kelvin & Tan, 2020; Wong & Moorehouse, 2021). Once that was achieved, another problem became apparent. Malaysian university teachers were no longer in survival mode but still had to continue to teach online classes (Maryam & Norazha, 2022). With online classes being the new norm, teachers were challenged to develop effective digital pedagogy practices.

The Malaysian Ministry of Higher Education (MOHE) has been instrumental in developing online teaching and learning guidelines at Malaysian tertiary institutions. A ten-year development plan to improve Malaysian online education is presented in the Malaysian Education Blueprint 2015-2025 (Higher Education). The blueprint outlined ‘globalised online learning’ and ‘transformed higher education delivery’ as two of its ten thematic shifts (MOHE, 2022). In 2020, MOHE instructed all tertiary institutions to conduct online classes (Wen & Kim, 2020). Since then, all higher education teachers have experienced teaching online classes. In 2022, MOHE announced that it would launch the Higher Education Digitisation Plan, and in 2024, this has yet to materialise. This current study aligns with MOHE’s mission of transforming higher education delivery.

The current digital pedagogy practices at Malaysian universities involved in this study are hybrid, blended, and online classes (Ibrahim & Ismail, 2022; Li et al.,

2022; Raes et al., 2020). Malaysian university English language teachers typically teach undergraduate learners at two to four campuses, involving seven to ten faculties. Teachers also teach local and international learners, making online, blended and hybrid classes more feasible and accessible than in-person teaching in physical classrooms. Teaching language using online, blended or hybrid models is no easy feat and requires experience. Teachers must ensure that learners learning a second language can participate in lessons, collaborate and interact with peers, and improve reading, writing, listening, speaking, grammar, vocabulary and presentation skills, all via digital platforms. Without digital pedagogy experience and skillsets, navigating and orchestrating online classes to deliver quality language education can be difficult.

This study focuses on Malaysian university English language teachers responsible for teaching English language proficiency skills in online, blended, and hybrid classes. These online, blended, and hybrid models have become increasingly prevalent in universities across Malaysia, including the three institutions involved in this study (Ibrahim & Ismail, 2021; Nordin et al., 2021; Razali et al., 2022). The structure of these models makes them particularly suitable for English language teaching, as numerous language resources are available online, creating a seamless environment that allows students to practice and interact with the language more effectively. The availability of digital resources also provides ample opportunities for students to collaborate and engage in meaningful communication in the target language (Forminykh, 2021; Mavridi, 2022).

Teaching English through digital platforms in these diverse models is a complex and challenging process. It requires more than technical proficiency; it demands digital pedagogy experience, the ability to design engaging online learning activities, and the digital pedagogy competence to manage online classes effectively

(Bygstad et al., 2022; Crawford et al., 2020). Teachers may struggle to deliver high-quality language education without the appropriate skills in digital pedagogy, including the knowledge of how to design learning activities that foster collaboration, participation, and language development (Adi & Segar, 2022; Crawford et al., 2020; Forminykh, 2021; Pablos et al., 2022). Researching university English language teachers with strong digital pedagogy skills is essential to ensure effective and meaningful English language instruction in online, hybrid, and blended classrooms.

In this study, the researcher sought to understand how Malaysian university English language teachers with low and high digital pedagogy competence navigate the demands of online, blended, and hybrid classes. By exploring the specific digital pedagogy practices employed, the challenges teachers encountered, and the levels of digital pedagogy competence among teachers, this study contributes valuable insights into how to support and enhance the digital pedagogy practices of university English language teachers and, in turn, improve the quality of online education at Malaysian universities.

1.3 Statement of the Problem

The shift to online and blended learning in higher education has underscored the urgent need for effective digital pedagogy practices. Although higher education teachers across countries such as Australia, Norway, Spain, Malaysia, Germany, and China demonstrate strong technology usage and positive attitudes toward digital tools, research highlights that many have not developed adequate digital pedagogy skills (Ewing, 2021; Forminykh, 2021; Reisolgu, 2020; Sailer et al., 2021; Sidra & Norizan, 2020; Zhang & Yu, 2021). In the United Kingdom, higher education teachers have reported significant disruption to their pedagogical roles due to online migration

(Watermeyer et al., 2021). These findings emphasise that effective digital pedagogy remains a global challenge requiring urgent attention.

Within the context of online English language education, university teachers face three primary challenges: technological, pedagogical, and subject content-related issues. Technological challenges often stem from unstable internet connections, limited access to digital resources, inadequate infrastructure, and varying levels of teachers' digital skills (Ferri, 2020; Ibrahim & Ismail, 2022; Neurwith, 2020; Sepulveda et al., 2020; Mavridi, 2022; Wen & Kim, 2020; Adi & Segar, 2022; Crawford et al., 2020; Forminykh, 2021; Pablos et al., 2022). Pedagogical challenges frequently involve difficulties in establishing teacher presence, fostering interaction, and conducting effective online assessments (Ferri, 2020; König et al., 2020; Kabilan & Annamalai, 2022; Anderson, 2020; Chi, 2018; Sepulveda, 2020; Lohr, 2022; Joshi et al., 2021; Saha, 2022). Meanwhile, subject content challenges arise from the lack of structured digital content and limited student engagement (Cavinato, 2022; Crawford et al., 2020; Muthuprasad, 2021; Sepulveda et al., 2020; Mavridi, 2022; Saha et al., 2022).

In addition to these challenges, university English language teachers often struggle to design online learning activities that foster engagement. Studies show that poorly designed passive activities can lead to disengagement, slow learning, and poor learning outcomes (Cowling et al., 2022; Lohr et al., 2022; Ma et al., 2021). Although active learning approaches are increasingly popular at universities, researchers argue that socially interactive and constructivist learning activities are necessary to improve learning effectiveness (Anderson, 2020; Greenhow & Lewin, 2021; Chi, 2018; Kabilan & Annamalai, 2022; Tice et al., 2021; Vaataja & Ruakomo, 2021). Student surveys across countries such as the United Kingdom, Italy, Australia, China,

Malaysia, India, and Cambodia confirm that the lack of online interactive activities negatively impacts learning outcomes (Borte et al., 2020; Ferri et al., 2020; Eri et al., 2021; Ma et al., 2021; Vikas, 2022).

In Malaysia, the need for university English language teachers to develop higher levels of digital pedagogy competence is especially critical. Teaching language proficiency online requires selecting appropriate digital resources, managing digital teaching and learning processes, empowering learners, and conducting online assessments (Forminykh, 2020; Mavridi, 2022). The increased demand for online and hybrid courses in Malaysian universities (Ibrahim & Ismail, 2021; Nordin et al., 2021; Razali et al., 2022) further highlights the urgency of this need. Findings from the pilot study conducted by the researcher of this current study in 2023 across two Malaysian public universities revealed that 77% of English language teachers conduct fully online classes, 85% teach blended classes, and 65% teach hybrid classes, indicating a substantial shift towards digital delivery modes.

Despite digital pedagogy's growing importance, few studies have comprehensively examined all three constructs of digital pedagogy: teachers' practices and challenges, design of learning activities, and digital competence levels, especially within the Malaysian higher education context. While digital pedagogy research often focuses on isolated aspects, systematic investigations into teachers' digital pedagogy competence levels and their strengths and weaknesses remain scarce (Vaataja, 2021; Zhang & Yu, 2021; Lohr et al., 2022; Crawford et al., 2021).

This study, therefore, addresses these research gaps by investigating three issues: (1) Malaysian university English language teachers' digital pedagogy practices and challenges across technology, pedagogy, and content domains; (2) the types of learning activities designed by these teachers, whether interactive, constructive, active,

or passive; and (3) teachers' digital pedagogy competence levels, and how these levels influence teachers' use of digital resources, teaching processes, learner empowerment strategies, and assessment methods. The research instruments, a survey questionnaire and an interview protocol, are designed based on these three fundamental issues, anchored by this study's conceptual framework. This mixed-method sequential explanatory study explains the digital pedagogy practices, challenges, design, and competence levels of English language teachers at Malaysian universities.

1.4 Research Objectives

The specific objectives of this study are as follows:

1. To determine digital pedagogy practices and challenges of Malaysian university English language teachers - particularly in technology, pedagogy, and content.
2. To describe the types of learning activities designed by Malaysian university English language teachers –particularly interactive, constructive, active or passive activities.
3. To measure and explain digital pedagogy competence levels of Malaysian university English language teachers (A1 to C2) – particularly in digital teaching resources, teaching and learning processes; learner empowerment; and assessment.

1.5 Research Questions

This study attempts to answer the following research questions.

1. What are the digital pedagogy practices and challenges of Malaysian university English language teachers - particularly in technology, pedagogy, and content?

2. What types of learning activities are designed by Malaysian university English language teachers –particularly interactive, constructive, active or passive?
3. What are the digital pedagogy competence levels of Malaysian university English language teachers (A1 to C2)? How do Malaysian university English language teachers at different digital pedagogy competence levels execute digital teaching resources, teaching and learning processes, learner empowerment, and assessment?

The expected outcomes of this study include:

1. Identification of digital pedagogy practices in technology, pedagogy and subject content, providing a deeper understanding of the current landscape of online teaching and learning in among Malaysian university English language teachers.
2. An analysis of the challenges faced by these teachers in terms of technology, pedagogy, and subject content, which will inform strategies for overcoming common obstacles.
3. Detailed insights into the types of learning activities designed by teachers, highlighting interactive, constructive, active, and passive learning activities, and their impact on student engagement and learning outcomes.
4. A clear mapping of digital pedagogy competence levels (A1 to C2) among teachers, offering a framework for professional development and a better understanding of how teachers at various competence levels adapt their teaching and assessment strategies.

5. Recommendations for improving digital pedagogy, directly benefiting educators, administrators, and policymakers in enhancing the quality of online English language education in Malaysian universities.

By providing current data and actionable insights, this study contributes to developing more sustainable digital pedagogy practices, overcoming teaching challenges, better design of learning activities, and increasing teachers' digital pedagogy competence, to ensure better educational outcomes for Malaysian university students.

1.6 Conceptual Framework

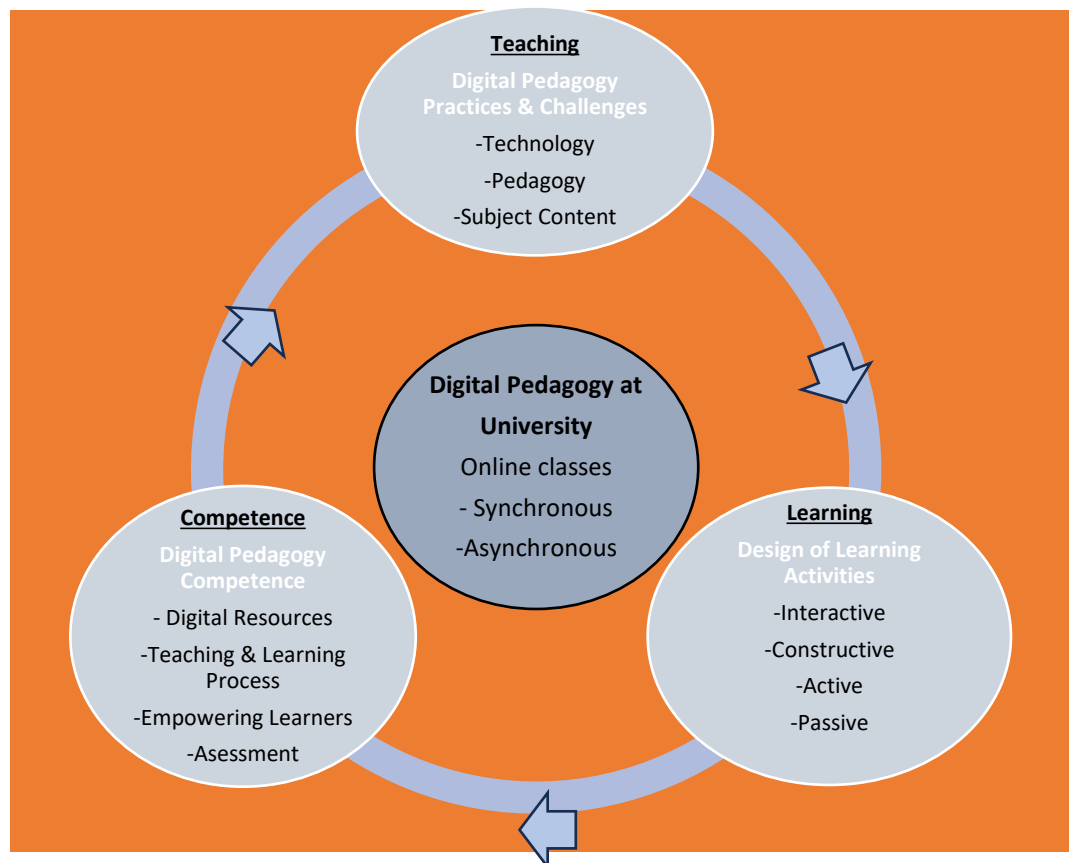


Figure 1.1 Conceptual Framework

The conceptual framework in Figure 1.1 shows the concepts in the study, with the main concept being ‘digital pedagogy’. “Digital pedagogy is not about using digital technologies for teaching but about approaching those tools from a critical pedagogical perspective. “(Hybridpedagogy.org, 2022, p1). A conceptual framework is a “visual or written product, one that explains, either graphically or in narrative form, the main things to be studied – the key factors, concepts, or variables – and the presumed relationships among them” (Miles & Huberman, 1994, p.18).).

Digital pedagogy is present in both synchronous and asynchronous online classes. Figure 1.1 shows that in digital pedagogy, there are three sub-concepts: (1) TEACHING: practices and challenges, (2) LEARNING: design of learning activities, and (3) COMPETENCE: digital pedagogy competence. Teachers’ online practices in synchronous and asynchronous classes often come with pedagogical, technological, and subject content challenges or TPACK (Mishra & Koehler, 2009). TPACK is Technological, Pedagogical, and Content Knowledge. For example, teachers’ digital pedagogy practices and challenges in online classes can be situated in TPACK, where learners’ technological access affects the teaching and learning process (Ferri, 2020; Mavridi, 2022).

Next, based on the conceptual framework, the design of learning activities in online classes can be divided into passive, active, constructive, and interactive learning activities. Since many higher education teachers are still struggling to create learning activities that are socially and cognitively engaging, the quality of online language education at universities is compromised (Crawford, 2020; Tice, 2021; Mavridi, 2022). While passive learning activities like lectures or short lessons are necessary for the success of online classes, learning activities that are active, constructive, and interactive improve learning outcomes (Chi, 2018; Sailer, 2021; Lohr, 2022).

Interactive activities can be as simple as nudging learners to interact with other learners outside class hours in online settings (Cavinato, 2022; Tice, 2022).

For higher education teachers to improve their digital pedagogy in the design of learning activities, teachers must improve digital pedagogy competence (Anderson, 2020; Ferri, 2020; Tice, 2022). The conceptual framework also has teachers' digital pedagogy competence. Improving teachers' digital pedagogy competence improves teachers' ability to find or design high-quality digital resources, improve the online teaching and learning process, empower learners, and conduct online assessments efficiently (Redecker, 2017).

As seen in the conceptual framework, the pedagogical models of synchronous and asynchronous modes are standard in blended, hybrid and online university classes in 2024. In hybrid classes, the teacher is physically present on campus and attends to virtual and in-person learners, often using web conferencing. Hybrid classes can also include asynchronous activities, such as completing online quizzes at learners' convenience. Other university teachers use the blended model, where in-person, online or physical teaching (synchronous learning) is paired with learners' independent online learning activities (asynchronous learning). In contrast, online teaching is conducted without physical classes and involves synchronous and asynchronous modes. The similarity is that all three models – online, blended, and hybrid - have synchronous and asynchronous modes (Singh et al, 2021; Siegelman, 2019).

Overall, the conceptual framework visually represents university teachers' digital pedagogy practices, challenges, design of learning activities, and digital pedagogy competence. It shows how teaching practices, challenges, design, and competence interact in teachers' online, hybrid, and blended classes at university.

1.7 Significance of The Study

This study reports the quantitative and qualitative findings on the digital pedagogy practices of English language teachers at Malaysian universities. Understanding these practices is needed to propose suggestions and recommendations to improve online teaching and learning for English language education at Malaysian public universities.

Secondly, uncovering Malaysian university teachers' digital pedagogy challenges in integrating technology, pedagogy and subject content in online classes could highlight the challenges university teachers face in online teaching and learning. Subsequently, it is hoped that MOHE and universities could provide better technological, pedagogical, and subject content support for university teachers.

Thirdly, in pursuit of high-quality online teaching and learning for the benefit of learners' language education at Malaysian universities, it is hoped that the results of this study will be able to create awareness among Malaysian university teachers to take on a digital pedagogy pivot and design four types of learning activities - passive, active, constructive, and interactive. A combination of these cognitive, affective, and social learning activities contributes to higher learning outcomes (Chi, 2018; Sailer, 2021; Lohr, 2022).

Fourth, this study identifies Malaysian university English language teachers' digital pedagogy competence levels (A1 to C2) based on the Digital Competence for Educators Common European Framework (Redecker, 2017). Measuring digital competence is meant to identify university teachers' strengths and weaknesses in digital pedagogy. The scores inform university administrators, researchers, and practitioners about the strengths and weaknesses and the support and training needed to enhance or improve university teachers' digital pedagogy competence.

Finally, this mixed-method sequential explanatory study reveals how university English language teachers at different digital pedagogical competence levels practice online teaching, encounter challenges, design learning activities, and innovate digital pedagogy in online classes at Malaysian universities.

1.8 Limitations of The Study

The limitation of this study is its small population. It is limited to university English language teachers teaching at three Malaysian public research universities in the Klang Valley area. Klang Valley's geographical location includes parts of Selangor and Kuala Lumpur, which is also known as Central Malaysia. Thus, results could not be generalised to include all university teachers teaching within Central Malaysia. Since the timeframe of this research is two years, it would not be practical to include the whole population of university teachers in Central Malaysia as this would require extra time for quantitative and qualitative data collection and analysis. Additionally, the focus and objectives of this study are only concerned with the digital pedagogy practices, challenges, design of learning activities, and digital competence of university English language teachers.

1.9 Operational Definitions

The following operational definitions are relevant to the context of this study.

1.9.1 Digital Pedagogy

The researcher takes the definition of hybridpedagogy.org (2022): "Digital pedagogy is not about using digital technologies for teaching but about approaching those tools from a critical pedagogical perspective. It is much about using digital tools

thoughtfully as it is about deciding when not to use digital tools and about paying attention to the impact of digital tools on learning.” Digital pedagogy in this study is conceptualised with three constructs: (1) digital pedagogy practices, (2) socio-constructivist orientation in designing digital learning activities, and (3) digital pedagogy competence (Vaataja, 2021; Zhang & Yu, 2021).

1.9.2 Hybrid, Blended, and Online Classes

Singh et. al. (2021) and Siegleman (2019) define hybrid, blended, and online classes. Hybrid classes can be completed synchronously or asynchronously using real-time meetings, where students interact at different times. A blended course comprises in-person sessions accompanied by online resources and tasks with a combination of face-to-face and online learning. In comparison, online classes are done entirely online, synchronously, and asynchronously. All three classes have synchronous and asynchronous modes.

1.9.3 Synchronous and Asynchronous

Singh et al. (2021) and Siegelman (2019) define synchronous and asynchronous classes. Synchronous means occurring in real-time, with participants logged in at an appointed time for a live lecture or discussion, such as over Zoom or Google Meet. The teacher and learners are in the same virtual setting simultaneously. Asynchronous means occurring or able to be completed independently according to a person’s self-paced schedule or within a broad window of time but not coordinated to be completed in real-time with another participant. Students completing assignments independently, outside of class hours, or on learning management systems such as

Google Classroom, to complete online learning activities are examples of asynchronous learning.

1.9.4 Practices

Practices are defined by the actual application or use of an idea, belief, or method instead of theories relating to it. The concept of Practices in this study is defined by the theory of Community of Practice (CoP) by Wenger (1998). CoPs were first developed to facilitate the exchange of information and knowledge among people with similar interests and passions. CoPs now provide an environment where professionals such as university teachers can share best practices and generate new answers, theories, and knowledge in digital pedagogy. The benefits of CoP among university teachers are the exchange of information and knowledge, innovation and creation of new ideas.

1.9.5 Challenges

A challenge is a task or situation that tests someone's abilities. The concept of Challenges in this study is defined by the theory of Community of Practice (CoP) by Wenger (1998). CoP, such as interviewing teachers to understand the challenges and solutions experienced, aids the rapid problem-solving of digital pedagogy challenges at universities.

1.9.6 Design of Learning Activities

This study defines teachers' design of digital learning activities by adopting Chi's (2018) ICAP theory of instruction, which proposes that teachers design Interactive, Constructive, Active, and Passive activities for learners to achieve

superior learning outcomes. “Proper implementation includes all aspects of the lesson, such as the instruction they give students, the amount of time they allocate to the activities, and the questions they ask to facilitate cognitive engagement.” (Chi, 2018, pg1776) ICAP aims to incorporate higher modes of engaging activities, design deeper questions to assess student learning and incorporate ICAP activities in synchronous and asynchronous modes.

1.9.7 Digital Pedagogy Competence

Past studies compared existing digital pedagogy competence frameworks, and the European Digital Competence Framework for Teachers (DigCompEdu) is endorsed by experts and is most relevant to higher education. The Educators’ Digital Pedagogy Competence (Redecker, 2017) indicates how four primary components of teachers' knowledge are linked. These competencies include 1) Teaching and Learning Process, 2) Digital Resources, 3) Empowering Learners, and 4) Assessments. The framework also differentiates six digital competence levels (A1 to C2): A1 Newcomer, A2 Explorer, B1 Integrator, B2 Expert, C1 Leader, and C2 Pioneer. Additionally, the Digital Competence Framework for Teachers has been adapted and integrated into surveys and case studies by researchers as a needs analysis to improve university teachers’ digital pedagogy competence for online teaching and learning.

1.9.8 University English Language Teachers

University English language teachers refer to teachers, or ‘Guru Bahasa Universiti’, working at Malaysian public universities. Malaysian University English language teachers have a teaching, language, or linguistics degree and specialise in teaching language proficiency courses at the undergraduate level. They are responsible

for giving lectures and tutorials in physical, online, blended or hybrid classrooms. They also prepare lecture notes and language laboratory manuals, supervise students' projects, handle examination matters, and revise and prepare the curriculum and syllabus. Additionally, they are involved in research, such as conducting action research and producing academic publications (The Public Services Commission of Malaysia, 2022). Additionally, they teach learners from various academic backgrounds, such as Science, Technology, Pharmacy, Nursing, Engineering, Medicine, Business, Law, and Social Sciences. The courses commonly taught are academic, specific, and workplace English courses.

1.9.9 Teachers

Teachers are people who train to teach or teach English as a second, other, or foreign language in high schools and universities.

1.9.10 Learners

Learners refer to undergraduate university students. In the context of this study, learners come from diverse fields of study, socio-economic and cultural backgrounds, and varying nationalities and ages. Learners are individuals trying to gain knowledge or skill in something by studying, practising, or being taught.

1.10 Conclusion

This chapter provides an overview, background, problem statement, research objectives, research questions, conceptual framework, significance, limitations, and operational definition for this current study on English language teachers' digital

pedagogy practices, challenges, design of learning activities and digital competence in Malaysian universities.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter is divided thematically, following the research questions. The respective sections discuss theories and past studies on university teachers' (1) Digital Pedagogy Practices and Challenges, (2) Design of Learning Activities, and (3) Digital Pedagogy Competence. In the final section, a theoretical framework synthesises the theories, concepts, and themes from literature review.

The first section of this literature review explains the connection between Digital Pedagogy Practices and Challenges with Communities of Practice (CoP) theory (Wenger, 2011) and the Technological Pedagogical Content Knowledge (TPACK) Framework (Mishra & Koehler, 2009) to cover research objective one (RO1). Past studies on Digital Pedagogy Practices and Challenges are also situated within the TPACK constructs: Technology, Pedagogy, and Subject Content.

The second section covers objective two (RO2) of this study. Past studies on higher education teachers' design of learning activities are positioned within the ICAP framework (Chi. et al, 2018). Past studies on learning activities are synthesised accordingly by type of learning activity—Interactive, Constructive, Active, Passive (ICAP). The design of learning activities is also explored through the lens of andragogy (Knowles, 1998), heutagogy (Hase & Kanyon, 2000), cybergogy (Wang & Kang, 2016), and socio-constructivist pedagogy theories (Garrison, 2010).

The third section discusses Digital Pedagogy Competence. The Common European Digital Competence for Educators (DigCompEdu) framework (Redecker, 2017) is discussed in detail to cover research objective three (R03). Previous studies on digital competence in reported followed by a synthesis of how teachers' digital

pedagogy competence is measured. This section ends with past studies on university language teachers' digital pedagogy competence levels.

The final section summarises literature on the three research objectives - (1) Digital Pedagogy Practices and Challenges, (2) Design of Learning Activities, and (3) Digital Pedagogy Competence - within a theoretical framework.

2.2 Digital Pedagogy Practices and Challenges

Ferri et al. (2020) and Crawford et al (2020) highlight the challenges of university language teachers' digital pedagogy. Ferry et al. (2020) reported on the social, technological, and pedagogical challenges in online classes by interviewing fifteen online teaching experts from seven countries. The main technological challenges stem from unreliable internet connections and learners' electronic devices. The main pedagogical challenges involve teachers' and learners' limited digital skills, the imbalance between unstructured digital content and the abundance of online resources, a lack of interactivity and motivation among learners, and teachers' limited social and cognitive presence. The social challenges mainly relate to insufficient human interaction between teachers and learners.

Another study surveyed responses on digital pedagogy from higher education teachers from 20 countries, including Malaysia. They found that “on one side of the extreme, one group of universities did very little to respond and opted to meet their governments' minimum standards. On the other side, universities rapidly moved to digitalised education... without compromising academic quality and standards of the curriculum.” (Crawford et al., 2020, p20).

2.2.1 Communities of Practice Theory

Digital pedagogy practices and challenges in higher education can be situated in the broad framework of Communities of Practice (CoP). The concept of CoP was first proposed by educational theorist Wenger in 1991. It describes a group of people who share a concern or a passion for something they do and learn how to do it better (Wenger, 2011). In essence, CoP combines the ‘domain,’ the ‘community,’ and the ‘practice’ that constitutes a community of practice (Wenger-Trayner, 2015). This implies that community members are practitioners who interact regularly and build relationships that enable them to learn from each other. Generally, members participate in collaborative activities and discussions, offer mutual support, and exchange information. For instance, higher education teachers build a collective set of resources, such as experiences, stories, tools, and approaches to solving recurring problems—essentially forming a shared practice. To sum up, CoP refers to the social process of gradually negotiating expertise in a particular domain over time.

Teaching practices evolve over time. Changes often occur as members of a Community of Practice (CoP) become aware of shifting challenges, emerging resources, and changing educational contexts. These developments may unfold gradually or be triggered by sudden disruptions, such as the COVID-19 pandemic, which compelled educators worldwide to transition rapidly to online teaching. In higher education, CoPs have proven instrumental in improving teaching and learning practices, emerging through various channels such as instructional strategies, academic conferences, scholarly publications, and policy initiatives (Hofer et al., 2022). Within tertiary-level online education, a CoP may comprise university administrators, researchers, and English language university teachers working

collaboratively to address shared concerns and develop sustainable digital teaching practices.

This study uses the Community of Practice theory to underpin teachers' subject-specific practices. English language teachers from three public universities are seen as a subject-specific community of practitioners with similar experiences. Anderson (2020) emphasises that higher education educators benefit from sharing successful and unsuccessful experiences. This collaborative reflection fosters pedagogical resilience and innovation, particularly within subject-specific communities. Furthermore, Wenger (1999) argues that CoPs are more than just collectives of shared skills; they are relational, meaning-making entities where mutual engagement and a shared repertoire create a sense of belonging and purpose. In this light, this study positions university English language teachers' voices, gathered through surveys and interviews, as key to uncovering how digital pedagogy is sustained through contextual adaptation in online subject-specific university teaching.

2.2.2 Technological Pedagogical Content Knowledge (TPACK) Framework

This study's digital pedagogy practices and challenges are situated within the Technological Pedagogical Content Knowledge (TPACK) framework. The TPACK framework, illustrated in Figure 2.1 below, illustrates that (subject) content, pedagogy, and technology represent three categories of knowledge that interact in a complex manner. The framework shows the knowledge required to integrate technology into the classroom successfully.

The authors of the framework, Koehler and Mihra (2009), argue that the three primary components of teachers' knowledge should be linked. The first component, technological knowledge, refers to the ability of teachers to use technology effectively.

The second component, pedagogical knowledge, refers to teachers' knowledge of teaching and learning processes and methodologies. The third component, content knowledge, refers to teachers' understanding of the subject they are teaching. Digital pedagogy practices require teachers' readiness to connect technology, pedagogy, and (subject) content knowledge because “at the heart of good teaching with technology are three core components: (subject) content, pedagogy, and technology, plus the relationships among and between them.” (Mishra & Koehler, 2008, p3.)

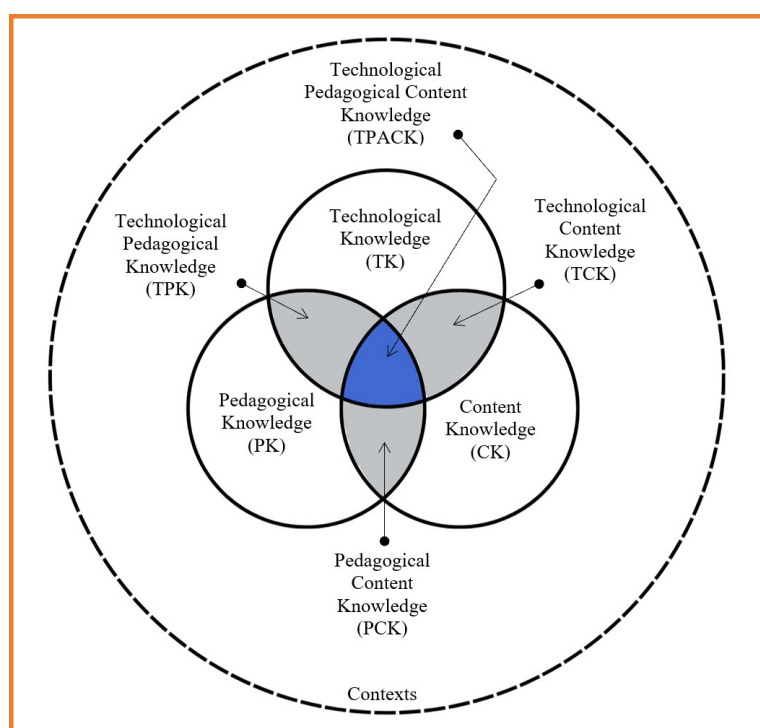


Figure 2.1 TPACK Framework (Mishra & Koehler, 2008)

Mishra and Koehler (2009, p. 5) in TPACK state, "Technology knowledge is always in a state of flux- certain ways of thinking about and working with technology can apply to all technology tools and resources." Pedagogical knowledge in the TPACK is teachers' deep knowledge about the processes, practices, or methods of teaching and learning. This generic form of knowledge applies to understanding how students learn, general classroom management skills, lesson planning, and student