DEVELOPMENT AND VALIDATION OF A BLENDED LEARNING GUITAR PEDAGOGY MODULE FOR PRE-SERVICE MUSIC TEACHERS IN THAILAND

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DEVELOPMENT AND VALIDATION OF A BLENDED LEARNING GUITAR PEDAGOGY MODULE FOR PRE-SERVICE MUSIC TEACHERS IN THAILAND

by

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LIST OF ABBREVIATIONS

CK	Content Knowledge
PK	Pedagogical Knowledge
TK	Technological Knowledge
TCK	Technological Content Knowledge
PCK	Pedagogical Content Knowledge
TPK	Technological Pedagogical Knowledge
TPACK	Technological Pedagogical Content Knowledge
ADDIE	Analysis, Design, Development, Implementation, Evaluation
RQ	Research Question
Std	Standard
Dev	Deviation
IQR	Inter Quartile Range
Freq	Frequency

PEMBANGUNAN DAN PENGESAHAN MODUL BLENDED LEARNING BAGI PEDAGOGI PEMBELAJARAN GUITAR UNTUK GURU MUZIK PRA PERKHIDMATAN DI THAILAND

ABSTRAK

Gitar adalah alat muzik yang sangat baik untuk pengajaran di sekolah kerana ia memberikan pelbagai manfaat kepada kanak-kanak. Guru muzik praperkhidmatan yang mengambil jurusan gitar di Thailand perlu mahir dalam pedagogi gitar untuk memberikan pengalaman pembelajaran yang terbaik kepada pelajar mereka. Pendekatan pembelajaran campuran menawarkan kelebihan untuk meningkatkan kualiti kursus pedagogi gitar melalui gabungan pengajaran dalam talian dan bersemuka. Kajian ini bertujuan untuk membangun, mengesahkan, melaksanakan, dan menguji keberkesanan modul pedagogi gitar pembelajaran campuran untuk guru muzik praperkhidmatan di Thailand. Modul ini dibangunkan berdasarkan model reka bentuk pengajaran ADDIE, dengan menggunakan metodologi penyelidikan campuran untuk mengumpul data kuantitatif dan kualitatif. Tinjauan analisis keperluan guru muzik praperkhidmatan dan tenaga pengajar gitar mendedahkan kandungan dan struktur modul tersebut. Pakar bidang mengesahkan modul ini menggunakan teknik Delphi. Kompetensi pedagogi gitar guru muzik praperkhidmatan diukur berdasarkan kerangka TPACK untuk pendidikan guru. Maklum balas dan komen daripada guru muzik praperkhidmatan dan tenaga pengajar gitar dianalisis untuk menunjukkan kegunaan modul pedagogi gitar pembelajaran campuran ini. Dapatan menunjukkan bahawa kandungan modul terdiri daripada tiga domain pengetahuan teras dalam kerangka TPACK: asas gitar, pedagogi, dan teknologi, manakala struktur modul

terdiri daripada tiga unit pembelajaran: tinjauan gitar, pengajaran asas gitar, dan praktikum gitar. Keputusan daripada teknik Delphi menunjukkan bahawa modul ini sesuai untuk dilaksanakan bersama guru muzik praperkhidmatan di Thailand dengan tahap penerimaan: min ≥ 3.00, median ≥ 3, dan IQR ≤ 1.00. Selepas pelaksanaan, kompetensi pedagogi gitar peserta meningkat dengan ketara dalam semua domain TPACK (sig<.05). Mengenai kegunaan modul, ia meningkatkan kompetensi pedagogi gitar guru muzik praperkhidmatan dan bermanfaat untuk kerjaya masa depan mereka (min = 4.80, S.D. = 0.41) serta sangat memudahkan pembelajaran mereka (min = 4.72, S.D. = 0.33). Modul ini juga berfungsi sebagai panduan pengajaran yang berkesan dan praktikal untuk tenaga pengajar gitar, yang memperbaiki strategi, kaedah, dan persediaan pengajaran mereka. Akhirnya, diharapkan modul pedagogi gitar pembelajaran campuran ini dapat dicadangkan kepada institusi pendidikan guru, universiti, sekolah pendidikan, dan program pendidikan muzik di Thailand sebagai kursus alternatif untuk guru muzik praperkhidmatan yang direka khusus untuk meningkatkan kompetensi pedagogi gitar.

DEVELOPMENT AND VALIDATION OF A BLENDED LEARNING GUITAR PEDAGOGY MODULE FOR PRE-SERVICE MUSIC TEACHERS IN THAILAND

ABSTRACT

Guitar is a great musical instrument for teaching in schools since it provides various benefits for children. Pre-service music teachers majoring in guitar in Thailand should be proficient in guitar pedagogy in order to offer their students the greatest possible learning experience. A blended learning approach provides advantages to improve the quality of the guitar pedagogy course through a combination of online and face-to-face instruction. This study aims to develop, validate, implement, and test the efficacy of a blended learning guitar pedagogy module for pre-service music teachers in Thailand. The module was created based on the ADDIE model of instructional design, with the use of a mixed-method research methodology to collect both quantitative and qualitative data. The needs analysis survey of pre-service music teachers and guitar instructors revealed the content and structure of the module. Subject-matter experts validated the module using the Delphi technique. Pre-service music teachers' competencies in guitar pedagogy were measured based on the TPACK framework for teacher education. Feedback and comments from pre-service music teachers and guitar instructors were examined to indicate the usefulness of the blended learning guitar pedagogy module. The findings revealed that the content of the module consisted of three core knowledge domains from the TPACK framework: basic guitar, pedagogy, and technology, whereas the structure of the module consisted of three learning units: a review of guitar, fundamental guitar teaching, and a

guitar practicum. Results from the Delphi technique indicated that the module was suitable for implementation with the pre-service music teachers in Thailand with the acceptance levels: mean $\geq$ 3.00, median $\geq$ 3, and IQR $\leq$ 1.00. After the implementation, guitar pedagogy competencies of participants significantly increased in all TPACK domains (sig<.05). As for the usefulness of the module, it promoted pre-service music teachers' guitar pedagogy competencies and was beneficial for their future careers (mean = 4.80, S.D. = 0.41) and highly facilitated their learning (mean = 4.72, S.D. = 0.33). The module also functioned as an effective and practical teaching guideline for guitar instructors, which enhanced their teaching strategies, methods, and preparation. Finally, it is hoped that this blended learning guitar pedagogy module can be proposed to teacher education institutes, universities, schools of education, and music education programs in Thailand as an alternative course for pre-service music teachers that is specifically designed to enhance guitar pedagogy competencies.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Many countries around the world recognize the importance of education in human development and the development of the entire nation. With Plato's concept of education, the functions of education can achieve human perfection. It involves the total training of character and aims at producing a morally mature individual to produce competent adults to meet the needs of the state (Nodding, 1995).

Education is the milestone of a nation's development because it develops a country's economy and society. It provides knowledge and skills to the population as well as shapes the personalities of the youth of a nation. It can have a significant impact on human opportunity to maintain their quality of life. Therefore, education is generally seen as the foundation of society, which brings economic wealth, social prosperity, and political stability (Idris et al., 2012).

According to Al-Shuaibi (2014), education is the key to future success that provides several opportunities and benefits for people. It helps in the development of a person's thinking and supports students in planning for future careers or pursuing higher education after they graduate from college.

According to Bano (2015), education plays an important role in life and serves as the foundation for human standards and a marker of opportunity. Education teaches us how to think, how to work properly, and how to make decisions. It also tells us how to lead a successful and meaningful life. Through the impact of education, people can

distinguish between correct and incorrect; true and false; and, more importantly, between humanity and brutality.

As seen, education is essential to human development, personally, socially, and professionally. It takes part in the development of the required knowledge, skills, and attitudes for a successful, equitable, and sustainable society.

1.1.1 Importance of Music Education in School

Music is an essential part of human culture and society that has existed throughout all of global history. Engaging in music goes beyond just entertainment because it has the potential to develop humans' minds and significantly contribute to their overall education. Additionally, the importance of teaching music in schools is widely known, as it can positively impact students and develop their learning environment (Welch et al., 2020).

Music education is also known for its ability to enhance students' cognitive skills such as memory capacity, concentration, awareness, and problem-solving. When students learn to play musical instruments, they must pay attention to various musical elements, such as rhythm, melody, harmony, and dynamics. This learning process in music helps to improve their memory skills, creative thinking, and overall cognitive ability. Moreover, playing an instrument requires students to use both sides of their brain, using logic and creative thinking, which help to promote cognitive ability (Miendlarzewska & Trost, 2014).

Music education also provides students with an opportunity to develop their creativity, imagination, and self-expression through musical activities. Encouragement to learn various styles and genres of music allows students to discover their own musical

preferences, develop a self-perspective, and express themselves through music. Music is also a universal language that transcends cultural and linguistic barriers, allowing students to connect with other people and share their emotions and experiences through the musical art form (Sungurtekin, 2021).

Furthermore, it has been suggested that music education improves students' learning skills and academic performance. Students who participate in music activities mostly have higher grades and standardized test scores compared to those who do not. These outcomes indicated that music education improves students' critical thinking skills and helps them to better understand abstract concepts, which can later be applied to other areas of study (Bryant, 2014).

Therefore, it may be concluded that teaching music in schools is essential to students' development since it provides several benefits for them, such as strengthening cognitive and psychomotor skills, encouraging creativity, and enhancing academic achievement.

1.1.2 Importance of Learning Guitar for Children

Guitar is a musical instrument that has been popular for centuries and has a rich cultural history since it can be used in a wide range of musical genres, such as classical, blues, jazz, rock, metal, or others, based on the variety of its' shapes, sounds, and ways of performing. Furthermore, guitar is quite easy to learn, especially compared to other musical instruments such as woodwind, brass, or other string instruments, which require years of learning and practice. These reasons have made guitar more accessible to a wider range of people and helped it gain more popularity (Manus & Manus, 2015).

For children, learning to play guitar provides them with an entertaining and valuable experience that helps develop their creativity, physical skills, coordination, and attitude. In fact, playing guitar at a beginner level does not require a lot of physical strength or a deep knowledge of music theory. With little time to practice, children can quickly learn basic guitar chords and play simple songs, which can encourage satisfaction and determination in them to play further (Suzuki, 1991). In addition, the guitar can also be a compact and very portable instrument since it varies in size. A small-size or half-size guitar allows children to carry it with them comfortably, whether they want to learn at school with friends or play at home with family (Grey, 2018).

In terms of educational benefits, learning to play guitar can develop several important knowledge and skills in children. For example, playing guitar basically requires psychomotor skills such as muscle movement, agility, flexibility, and coordination (Hayes, 2021). It also helps develop the cognitive skills of the learners, such as thinking, remembering, and applying knowledge for guitar playing (Jentzsch et al., 2014). Additionally, practicing guitar can be beneficial for improving musical skills such as rhythm, melody, and harmony, which can be applied to other musical instruments as well (Pelayo et al., 2015).

To conclude, the guitar is a suitable musical instrument for children to learn, practice, and perform. It is easy to begin, portable, and offers a wide range of benefits (e.g., musical, social, and educational) that can improve children in many aspects.

1.2 Introduction

In Thailand, the Thai Ministry of Education (2018) places education as an important part of human development since it helps people become useful members of society. The goals of Thailand's education policies are to improve the quality of education for all children and make sure that everyone has equal access, which is the key to making high-quality human resources for the future and building a strong society. As far as Thai education is concerned, teacher education programs have been developed since 1892 in order to produce pre-service teachers for Thailand’s education system (Thai Teachers' Council Archive, 2021).

According to Ryan et al. (2017), the pre-service teacher is defined as the student enrolled in a teacher preparation program who must successfully complete degree requirements, including course work and field experience, before being awarded a teaching license. The pre-service teacher is an essential component of the education system, as he or she represents the future of the teaching profession.

Currently in Thailand, there are a number of institutions offering teacher education programs at the bachelor’s degree level, especially the Rajabhat universities, a group of 38 former teacher training colleges, that are spreading around the country as the majority group producing pre-service teachers for local development (Council of Rajabhat University Presidents, 2018).

In addition, Rajabhat universities are another key driving force in the operation of educational reform in accordance with Thailand’s national strategy and education plan. By focusing on the creation of graduates of excellent quality through the teaching and learning process in order for community and local development to be strong and

sustainable, particularly the production and development of pre-service teachers, the Rajabhat universities will continue to fulfill their primary purposes (Council of Rajabhat University Presidents, 2019).

Pre-service music teachers are also another area of concentration for the Rajabhat universities. Presently, in Thailand, there are a total of 26 Rajabhat universities that provide bachelor's degrees in music education programs. In particular, there are six Rajabhat universities in the northern area, eight Rajabhat universities in the north-eastern area, four Rajabhat universities in the western area, two Rajabhat universities in the southern area, three Rajabhat universities in the central area, and three Rajabhat universities in the Bangkok area (Office of the Civil Service Commission of Thailand, 2021).

According to the core curriculum of Rajabhat universities' bachelor's degrees in music education (Council of Rajabhat University Presidents, 2019), music education programs of Rajabhat universities aim to produce pre-service music teachers who are high-quality music teachers that can integrate knowledge, skills, attitudes, morality, and professional ethics to educational management with four primary competencies:

1. Students have a good attitude towards the music teacher profession, good teaching principles, and good musical skills.

2. Students can help with learning management, get ready to teach music, and have more advanced music skills.

3. Students can integrate music learning management with community development.

4. Students can become professional music educators and help to improve the quality of local schools and communities.

Apart from teaching music in general, the music education programs of Rajabhat universities also offer some main musical instrument courses for pre-service music teachers to choose as a major instrument. According to Promchuai (2020), the most popular western musical instruments chosen by pre-service music teachers were guitar, brass, woodwind, percussion, and piano, respectively.

As mentioned earlier, the guitar is also a great musical instrument for teaching in schools since it provides various benefits for learners. According to Provost (1997), teaching guitar and performing guitar are two separate skills that are not always mutually inclusive. Good guitar players are not good guitar teachers until they learn how to develop their skills and how to teach others how to develop their skills. According to Glise (1997), guitar pedagogy is a concept of how to teach guitarists to teach guitar. Therefore, as future music teachers, pre-service music teachers majoring in guitar should be proficient in guitar pedagogy in order to enhance their teaching abilities, increase their musical knowledge, and offer their students the greatest possible learning experience.

1.3 Problem Statement

Based on the provided information, the major research problems are as follows:

1.3.1 Lack of Guitar Pedagogy Module for Pre-service Music Teachers in Thailand

Despite the importance of teaching guitar for children and guitar pedagogy for pre-service music teachers in Thailand, previous studies show that there is no specific guitar pedagogy course offered in Thailand, particularly for music education programs of Rajabhat universities (Khositditsayanan et al., 2019; Boonyanant & Hongsiriwat, 2020).

Research also consistently shows that specialized training in specific-instrument pedagogy is critical for pre-service music teachers' competency development (McPherson & Welch, 2012). Without a specific course focused on guitar pedagogy, pre-service music teachers are missing sufficient knowledge and skills to effectively teach guitar and lacking the specialized pedagogical techniques required to foster their students' development, such as skills and techniques to guide students in proper finger positioning, sitting and holding gestures, strumming patterns, and musical interpretation (Santos & Gerling, 2015). Moreover, pre-service music teachers may rely only on generalized music education methods they've learned, which do not address the specific technical, cognitive, and motor skills required for successful guitar teaching and learning (Burwell, 2010).

This issue is exacerbated by the fact that Thailand's current music education curriculum mainly emphasizes general music teaching (Thongchua, 2017), which may not sufficiently address the specific technical and pedagogical demands of guitar instruction. Thailand's teacher education programs tend to offer broad training in music education, focusing on Thai and Western music traditions and practice, basic music theory, and teacher education courses, often overlooking the specialization for specific instrument teaching (Wongwanich & Wiratchai, 2005). As a result, pre-service music teachers in Thailand are often unprepared to engage students with the practical and effective skills required for successful guitar teaching and learning. This lack of preparation leads to challenges and problems during their practicum sessions, negatively affecting student outcomes. These impacts include ineffective student engagement, limited instructional methods and strategies, low teacher confidence, and increased student struggles and frustration (Suksri, 2016).

Moreover, the lack of targeted instrument pedagogy training not only affects music teachers' ability to teach students in the classroom but also limits the potential for fostering long-term musical engagement and growth in their students. Research has shown that students who received proper instruction from teachers with specialized instrument pedagogy training tended to sustain long-term interest in music and achieve higher levels of their performance (Hodges & Sebald, 2011). On the contrary, when music teachers lack specific training in an instrument pedagogy, they may struggle to inspire student engagement or convey musical knowledge and complex techniques in a way that is accessible and motivating (Byo & Cassidy, 2005).

This is particularly concerning in Thailand, where the demand for guitar instruction is continually rising, driven by the growing popularity of Western music genres such as rock, pop, and jazz, as well as Thai contemporary music styles such as Luk Thung and Mor Lam, which increasingly include guitar as a main instrument (Sangnapaboworn, 2003; Phuphaibul, 2019). A study by Sukying and Anusornteerakul (2021) also highlighted a significant rise in students seeking to learn guitar in recent years, driven by broader cultural trends toward Western and Thai popular music. However, despite this growing demand, the availability of qualified guitar instructors remains limited, especially in rural and under-resourced areas where access to specialized music education is insufficient. This gap is further compounded by the fact that many pre-service teachers graduate with general music education degrees that do not include specific training in guitar pedagogy (Suksri, 2016).

Additionally, according to research by the Office of Thai Basic Education Commission (2020), many schools, especially in rural areas, faced difficulty recruiting teachers with specialized training in guitar pedagogy, leading to a reliance on general

music teachers who lack the expertise to provide quality guitar instruction. This shortage of proper guitar teachers limits students' opportunities to develop their musical skills and diminishes the potential impact of music education in fostering creativity and engagement.

To conclude, addressing this gap as a key problem is crucial, which led to the development of a dedicated guitar pedagogy course or module to ensure that pre-service music teachers in Thailand are equipped with the specific knowledge and skills needed to effectively teach guitar. This would not only enhance their ability to conduct guitar classes but also foster their students' musical growth and cultivate a lifelong appreciation for music.

1.3.2 Need for a Blended Learning Approach in Thailand

Thailand's education system has been undergoing a global transformation as it seeks to modernize and access quality education. As part of the country's educational development policy, the Thai Ministry of Education (2015) has emphasized the necessity of integrating technology into teaching and learning processes. This policy reflects broader global trends, where technology is seen as essential in reshaping traditional education, enabling wider access, and promoting equity in learning opportunities (UNESCO, 2021). In Thailand, where differences between urban and rural areas are growing, technology-supported learning has become a national priority to ensure equal access to education.

For this reason, the Thai Office of the Higher Education Commission (2016) underscored the need for innovative approaches such as blended learning, defined as a pedagogical model that combines online and face-to-face instruction (Saboowala & Mishra, 2020), to help teachers and students interact more effectively through online

networks. This model provides flexibility, caters to diverse learning needs, and bridges the gap between students in urban centers with more educational resources and those in remote and underdeveloped areas of Thailand (Wongwanich & Wiratchai, 2017). Blended learning also supports the development of critical digital literacy skills, which are important for Thailand's progression toward a knowledge-based economy as envisioned by the Thailand 4.0 policy (National Economic and Social Development Council, 2017).

Moreover, the COVID-19 outbreak revealed substantial weaknesses in Thailand's education system, driving a sudden change to online instruction (World Health Organization, 2020). From 2020 onward, educational institutions across the country had to promptly adapt to online teaching strategies (Office of the Basic Education Commission, 2020). However, this change not only highlighted the lack of preparedness among teachers and students for full-scale online and digital learning but also demonstrated the limitations of solely online approaches, particularly in regions where internet access and technological infrastructure remain inadequate (Srisuwan, 2021).

As Thailand recently transitioned into the post-pandemic phase, blended learning has been increasingly seen as a sustainable and balanced teaching model, combining the strengths of both online and face-to-face instruction as well as addressing digital divides while enhancing learning outcomes. Since then, the blended learning approach has been considered as a key instructional support for teachers, particularly through initiatives such as the *Blended Learning model in the Instructional Media Development Cooperation project* (Office of the Basic Education Commission of Thailand, 2022).

Blended learning also has significant potential in Thailand's diverse educational landscape. According to Saboowala & Mishra (2020), blended learning not only provides flexibility but also enhances engagement through multimedia resources, interactive

activities, and real-time feedback. In the Thai education context, where class sizes can be large and individual attention to students is often limited, blended learning allows for more personalized and self-directed learning experiences, particularly through asynchronous online components (Wong & Yin, 2019). This approach also supports collaborative learning by enabling learners to interact both in person and through digital platforms, encouraging deeper engagement and critical thinking skills (Bath & Bourke, 2010).

Moreover, given the advantages and opportunities of blended learning, applying it to the proposed guitar pedagogy module for pre-service music teachers in Thailand is an important procedure. The absence of specialized training in guitar pedagogy has long been a challenge to the effective preparation of future music teachers, particularly in local areas with limited access to expert instructors (Khositditsayanan et al., 2019). A blended learning guitar pedagogy module can facilitate pre-service music teachers to engage with high-quality digital resources via various online platforms, such as real-time online tutorials, online guitar exercises, and learning websites, etc., while face-to-face sessions can focus on reviewing their techniques, practicing guitar teaching, and then providing real-time feedback from both instructors and learners.

In conclusion, by integrating blended learning into the guitar pedagogy module, pre-service music teachers will have the flexibility to practice at their own pace and receive individualized guidance, regardless of space and time. This approach addresses the digital divide and ensures that future music teachers can access the tools and training they need to excel in both musical knowledge and educational knowledge. Blended learning enhances not only the technical proficiency of future guitar teachers but also equips them with the digital skills necessary for 21st-century education, which provides a sustainable, inclusive, and effective competency for preparing pre-service music teachers

for their future careers.

1.4 Aims of the Study

This study aims to develop, validate, implement, and test the efficacy of a blended learning guitar pedagogy module for pre-service music teachers in Thailand. This study mainly focuses on creating an effective blended learning guitar pedagogy module for music education programs of Rajabhat universities, a group of former teacher training colleges in Thailand.

1.5 Objectives of the Study

To achieve the aims, the following specific objectives have been established:

1. To develop the content and structure of a blended learning guitar pedagogy module for pre-service music teachers in Thailand.

2. To validate a blended learning guitar pedagogy module through the Delphi Technique.

3. To measure the competency of pre-service music teachers in terms of guitar pedagogy after the implementation of a blended learning guitar pedagogy module.

4. To examine the feedback of pre-service music teachers and guitar instructors towards a blended learning guitar pedagogy module.

1.6 Research Questions

The following questions were addressed for this study:

1. What are the content and structure of a blended learning guitar pedagogy module for pre-service music teachers in Thailand?

2. How valid is the blended learning guitar pedagogy module based on the data collected in the Delphi Technique?

3. How much does the blended learning guitar pedagogy module improve the competency of pre-service music teachers in terms of guitar pedagogy?

4. How useful is the blended learning guitar pedagogy module for pre-service music teachers and guitar instructors?

1.7 Research Framework of the Study

The research framework provides an overview of the procedures, variables, approaches, and concepts used in this study, as follows:

The proposed blended learning guitar pedagogy module will be created based on the ADDIE model of instructional design with the use of a blended learning approach. According to Branch (2009) and Peterson (2003), the ADDIE model is the process frequently used to develop technology-based instructional modules, which consist of five stages: Analysis, Design, Develop, Implement, and Evaluation.

The first research question shows the content and structure used in the development of a blended learning guitar pedagogy module for pre-service music teachers in Thailand. Data collected from pre-service music teachers and guitar instructors will be used to design the tentative content and structure of the module.

The second research question is to validate a blended learning guitar pedagogy module through the Delphi Technique. The purpose of module validation is to get the experts' opinions on whether a blended learning guitar pedagogy module will enhance pre-service music teachers' competencies in guitar pedagogy.

The third research question involves the measurement of pre-service music teachers' guitar pedagogy competencies after the implementation of a blended learning guitar pedagogy module based on the TPACK framework for teacher education. According to Mishra & Koehler (2006), the TPACK framework is the understanding of teacher competencies based on three core knowledge domains (content knowledge, pedagogical knowledge, and technological knowledge) and their integration.

The last research question indicates results from participants' feedback and comments regarding the usefulness of a blended learning guitar pedagogy module that enhances the guitar pedagogy competencies of pre-service music teachers and facilitates guitar instructors through blended learning environments.

1.8 Definition of Terms

There are a few terms in this study that need to be specifically defined.

1.8.1 Blended Learning

According to Graham (2013), blended learning is defined as an integrated teaching and learning approach using both face-to-face and online learning to facilitate learning activities. In this study, a blended learning module consists of face-to-face, synchronous

online, asynchronous online, and fieldwork learning activities to enhance students' learning experiences.

1.8.2 Guitar Pedagogy

According to Risteski (2006), guitar pedagogy is considered the art and science of guitar teaching, including principles, techniques, and the use of teaching strategies. In this study, guitar pedagogy covers the basics of guitar playing and more advanced topics in guitar teaching, such as guitar-related music theory, educational studies content, and the use of technology for guitar teaching.

18.3 Pre-Service Music Teachers

In this study, "pre-service music teachers" refers to pre-service music teachers, or student teachers, or music education students of Rajabhat universities in Thailand who are majoring in guitar.

18.4 TPACK Framework for Teacher Education

In this study, the TPACK framework consists of three core knowledge domains: Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK), as well as integrated knowledge domains: Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPACK).

1.9 Significance of the Study

This study shows significant impacts in several ways. Firstly, it will contribute to Thailand's music education development by providing pre-service music teachers with a comprehensive and effective pedagogical model for teaching guitar. Secondly, the study will offer a specific blended learning model for music education that is adaptable to other musical instruments and subjects. Finally, the study will provide valuable insights into the effectiveness of blended learning as a teaching approach, as well as the benefits for pre-service music teachers' learning outcomes.

1.10 Scope of the Study

The followings are the limitations and delimitations of this study:

Firstly, the purpose of this study is to propose a blended learning guitar pedagogy module for pre-service music teachers only to a group of 26 Rajabhat universities, former teacher training colleges, in Thailand. Pre-service music teachers from other institutions are not included.

Secondly, a proposed blended learning guitar pedagogy module was developed, validated, and revised only based on feedback and comments from a panel of 17 subject-matter experts in the relevant fields.

Lastly, only pre-service music teachers majoring in guitar from four Rajabhat universities in lower-northern Thailand were selected as the samples in the module implementation stage of the study.

1.11 Summary

Guitar is a great musical instrument for teaching in schools since it provides various benefits for children. Pre-service music teachers majoring in guitar in Thailand should be proficient in guitar pedagogy in order to offer their students the greatest possible learning experience. A blended learning approach provides advantages to improve the quality of the guitar pedagogy course through a combination of online and face-to-face instruction.

This study aims to develop, validate, implement, and test the efficacy of a blended learning guitar pedagogy module for pre-service music teachers in Thailand. The module was created based on the ADDIE model of instructional design, with the use of a blended learning approach. Subject-matter experts validated the module using the Delphi technique. Pre-service music teachers' competencies in guitar pedagogy will be measured based on the TPACK framework for teacher education. Feedback and comments from pre-service music teachers and guitar instructors will be examined to indicate the usefulness of the blended learning guitar pedagogy module.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive literature review in accordance with this study. Relevant literature regarding the current research topic was examined, as well as similar studies conducted in the past. The chapter consisted of seven major sections, which covered the related literature as follows: Brief History and Development of Teacher Training Colleges in Thailand, The Pre-Service Music Teacher Programs of Rajabhat Universities, Guitar Pedagogy, Blended Learning Approach, the TPACK Framework for Teacher Education, Related Research, Theoretical Framework, and Conceptual Framework of the study.

2.2 Brief History and Development of Teacher Training Colleges in Thailand

According to UNESCO (1972), the first teacher training school in Thailand was set up in 1892 in Bangkok when the Department of Education was enlarged to become the Ministry of Education. Since then, many more training schools have been established and developed under the Ministry, and a variety of training programs were offered for primary teacher training. In 1949, Prasarnmitr College of Education offered the first four-year course leading to a bachelor's degree in education, followed by Chulalongkorn University, which offered a similar program at its faculty of education. In 1956, the Thailand-

UNESCO Rural Teacher Education Project (TURTEP) was established in order to train teachers for rural areas in which students had to do their teaching practice in local schools. In 1970, teacher training colleges were established to carry out a four-year training program. All have the same syllabus, which was established by the Ministry of Education's Department of Teacher Training. There were 21 teacher training colleges in total, nine of these institutions were in the Bangkok area or adjacent provinces, and the remaining were distributed throughout the country, of which approximately two-thirds served the rural areas.

From 1975 to 1984, the teacher training colleges expanded the educational base to the range of "occupational techniques" by opening the following courses at a higher vocational level: food, construction, agriculture, economics, community development, and works of art, and finally opened other bachelor's degree courses beside the teacher education programs, i.e., a bachelor of arts and a bachelor of science (Buriram Rajabhat University, 2018). From 1990 to 1995, under the Rajabhat Institute Act, all teacher training colleges were raised to Rajabhat Institutes by King Bhumibol, and more institutes were expanded in other rural areas. Eventually, in 2005, King Bhumibol collectively elevated all of them to the status of universities, and they have been known as Rajabhat Universities ever since. Currently, there are 38 Rajabhat universities in total that serve areas all over Thailand (Lampang Rajabhat University, 2014).

In addition, since one of the most important roles of Rajabhat universities is to train pre-service teachers to serve local areas, the teacher training process has to be managed based on the teaching professional standards of the Teachers Council of Thailand, as follows:

- Language and technology for teachers
- Curriculum development
- Student learning activity management
- Psychology for teachers
- Educational measurement and evaluation
- Classroom management
- Educational research
- Educational innovation and information technology
- Teachership

(The Teachers Council of Thailand, 2017)

2.3 Pre-Service Music Teacher Programs of Rajabhat Universities

As far as music education in teacher training colleges in Thailand is concerned, in 1978, the first pre-service music teacher program of Rajabhat universities was launched at Bansomdejchaopraya Rajabhat University in the Bangkok area, followed by other Rajabhat universities to produce pre-service music teachers serving local schools in Thailand since then (College of Music, Bansomdejchaopraya Rajabhat University, 2020).

Currently, there are a total of 26 Rajabhat universities that offer pre-service music teacher programs across six educational areas in Thailand (Civil Service Commission of Thailand, 2021; Boonyanant & Hongsiriwat, 2020), as presented in Figure 2.1.

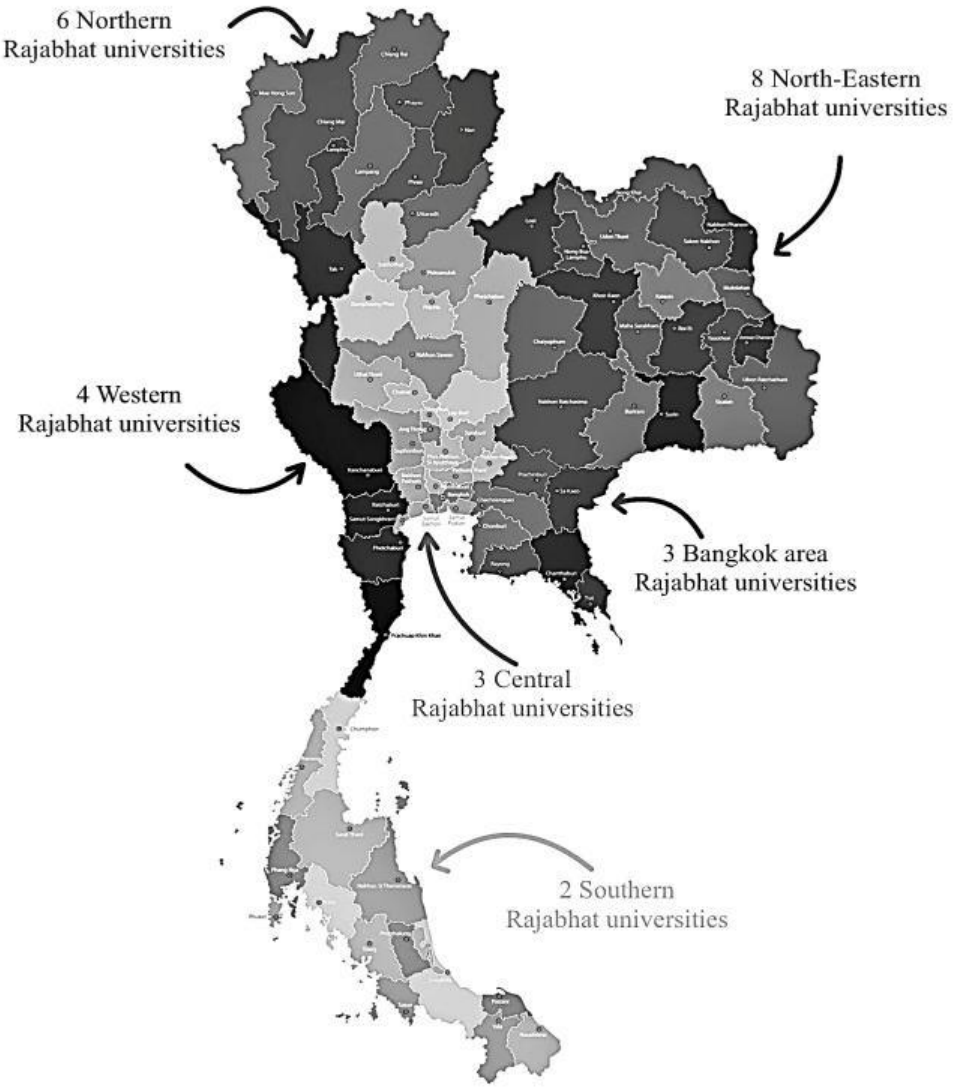

Figure 2.1 Rajabhat Universities in Thailand Offering Pre-service Music Teacher Programs

According to the Council of Rajabhat University Presidents (2019), in details, there are six Rajabhat universities in northern Thailand, eight in northeastern Thailand, four in western Thailand, two in southern Thailand, three in central Thailand, and three in the Bangkok area.

2.3.1 Pre-Service Music Teacher Programs of Rajabhat Universities in the Northern Thailand

Chaing Mai Rajabhat University is a university located in Chaing Mai province that offers a pre-service music teacher program through the Faculty of Education. The curriculum structure consists of 30 units for general education courses, 39 units for teacher education courses, 6 units for free elective courses, and 60 units for core music education courses, which cover both western music and Thai music major instruments, including Introduction to western music, Introduction to Thai music, Keyboard skills for teachers, Gong Wong Yai skills for music teachers, Theory of Thai music, Theory of harmony, Music education instruction preparation, Music education pedagogy, Music ensemble management for music teachers, Music history pedagogy, Thai folk music, Thai vocal class, Choral class, Senior project in music education, Research in music education, and specific courses on selected major musical instruments (e.g., Thai plucked instruments, Thai string instruments, Thai melodic percussions, Thai woodwind instruments, Classical guitar, Woodwind instruments, Brass instruments, and Piano).

Lampang Rajabhat University is the only university in Lampang province. The pre-service music teacher program is offered by the Faculty of Humanities and Societies. The curriculum structure consists of 30 units for general education courses, 39 units for teacher education courses, 6 units for free elective courses, and 63 units for core music education courses, which focus only on western music major instruments, including Fundamentals of Western music theory, Western music theory, History and development of Western music, Principles of military band, Musical instrument maintenance and repair, Psychology of music, Management of music Education in schools, Innovation and

technology in music education, Arranging for folk music, Pedagogy and band management for music teachers, Musical compositions for music teachers, Military band managements and pedagogy, Online music pedagogy, Audio system for music teachers, Music education research methodology, and specific courses on selected major musical instruments (e.g., Popular Guitar, Bass Guitar, Voice, Percussions, Woodwind Instruments, Brass Instruments, and Piano).

Uttaradit Rajabhat University is the main university in Uttaradit province that offers a pre-service music teacher program through the Faculty of Education. The curriculum structure consists of 30 units for general education courses, 40 units for teacher education courses, 6 units for free elective courses, and 71 units for core music education courses, which cover both western music and Thai music major instruments, including Musical skills for music teachers, Learning management for music teachers, Principles and strategies of music teaching, Music psychology for music teachers, Western music theory, History and philosophy of Western music and Thai music, Aesthetics in music education, Technology for music education, World music, Theory of Thai music, Introduction to ethnomusicology, Band management for music teachers, Musical instrument maintenance and repair, Research in music education, Music education seminar, Music education presentation, and specific courses on selected major musical instruments (e.g., Thai plucked instruments, Thai string instruments, Thai melodic percussions, Thai woodwind instruments, Thai vocal skills, Guitar, Keyboard, Percussions, String instruments, Woodwind instruments, and Brass instruments).

Pibulsongkram Rajabhat University is located in Phitsanulok province. The pre-service music teacher program is offered by the Faculty of Education. The curriculum structure consists of 30 units for general education courses, 39 units for teacher education