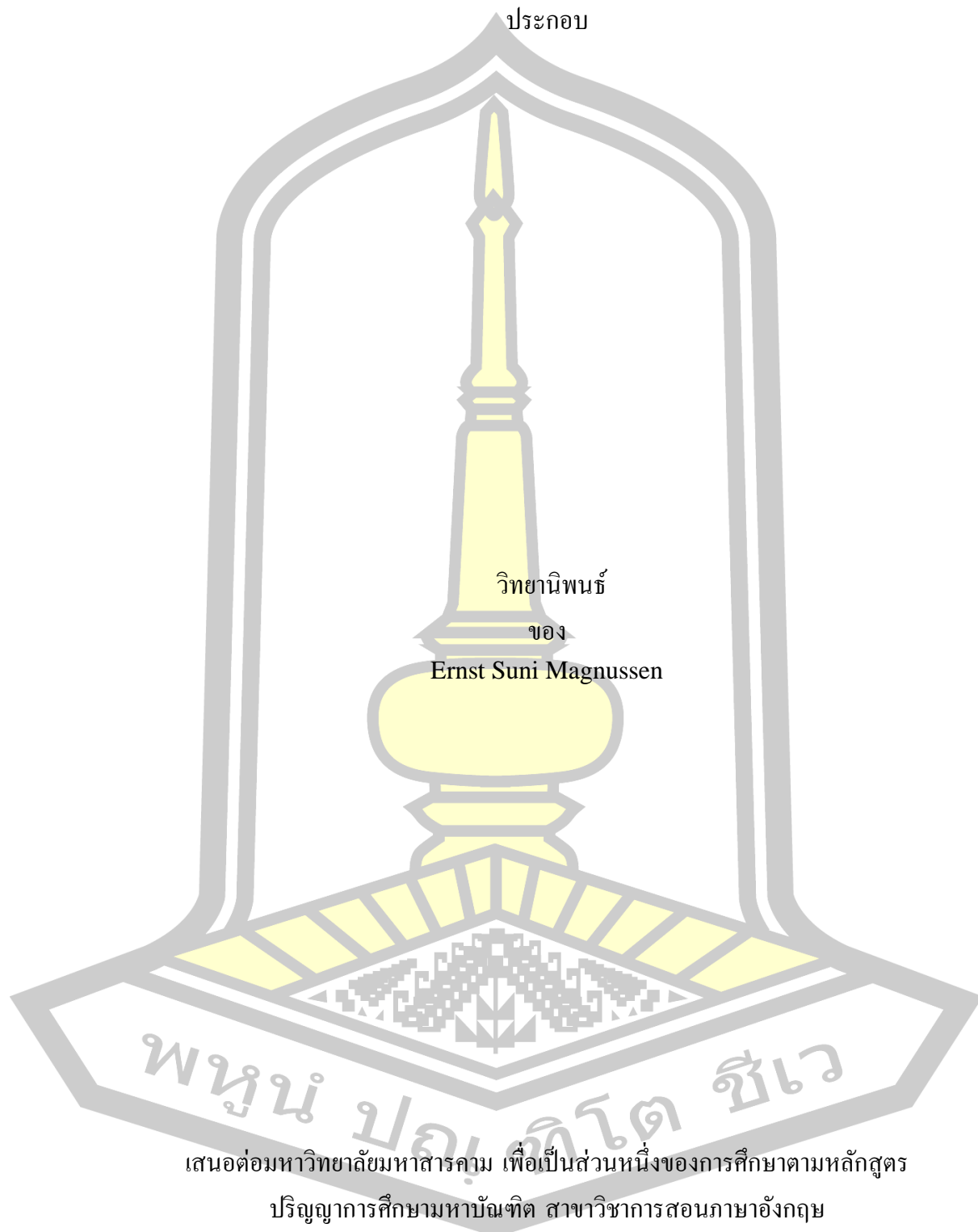An Investigation of Thai Preschooler's Vocabulary Acquisition through Songs and TPR

Ernst Suni Magnussen

A Thesis Submitted in Partial Fulfillment of Requirements for

degree of Master of Education in English Language Teaching

November 2020

การศึกษาการเรียนรู้คำศัพท์ของเด็กอนุบาลในบริบทไทยโดยวิธีการสอนแบบเพลงและท่าทาง
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ABSTRACT

Vocabulary acquisition is essential for successful language learning, yet, little is known about young learners' vocabulary acquisition in the Thai EFL context and what teaching methods effectively facilitate vocabulary acquisition. Hence, the current investigation looked at the effects of implementing songs and TPR on pre-schoolers' vocabulary acquisition in a Thai EFL context. The participants, 72 pre-schoolers, four to five years old, were taught 12 target words using TPR and songs in three whole classrooms for six weeks. The mixed-method research design was used to triangulate data collected from two tests and video recordings. The tests, one receptive and one productive, were administered as pre, post, and delayed post-test. Moreover, the hidden cameras captured the participants' reactions during the intervention. The findings indicated that singing and TPR had a significant effect on the participants' receptive and productive vocabulary acquisition, but no method was significantly better than the others. Also, the video recordings shed light on the participants' reactions to the implementations. Indeed, songs and TPR were effective to teach the target words and facilitated dynamic interactions in the classroom. Specifically, the data suggest that merging the two methods (TPR&S) was slightly more effective. However, the short period of the intervention and the small number of participants limited the findings. Finally, singing and TPR can be recommended for teaching young learners English vocabulary in EFL contexts.

Keyword : Vocabulary acquisition, young learners, teaching methods, EFL context, mixed-method research, TPR, Singing

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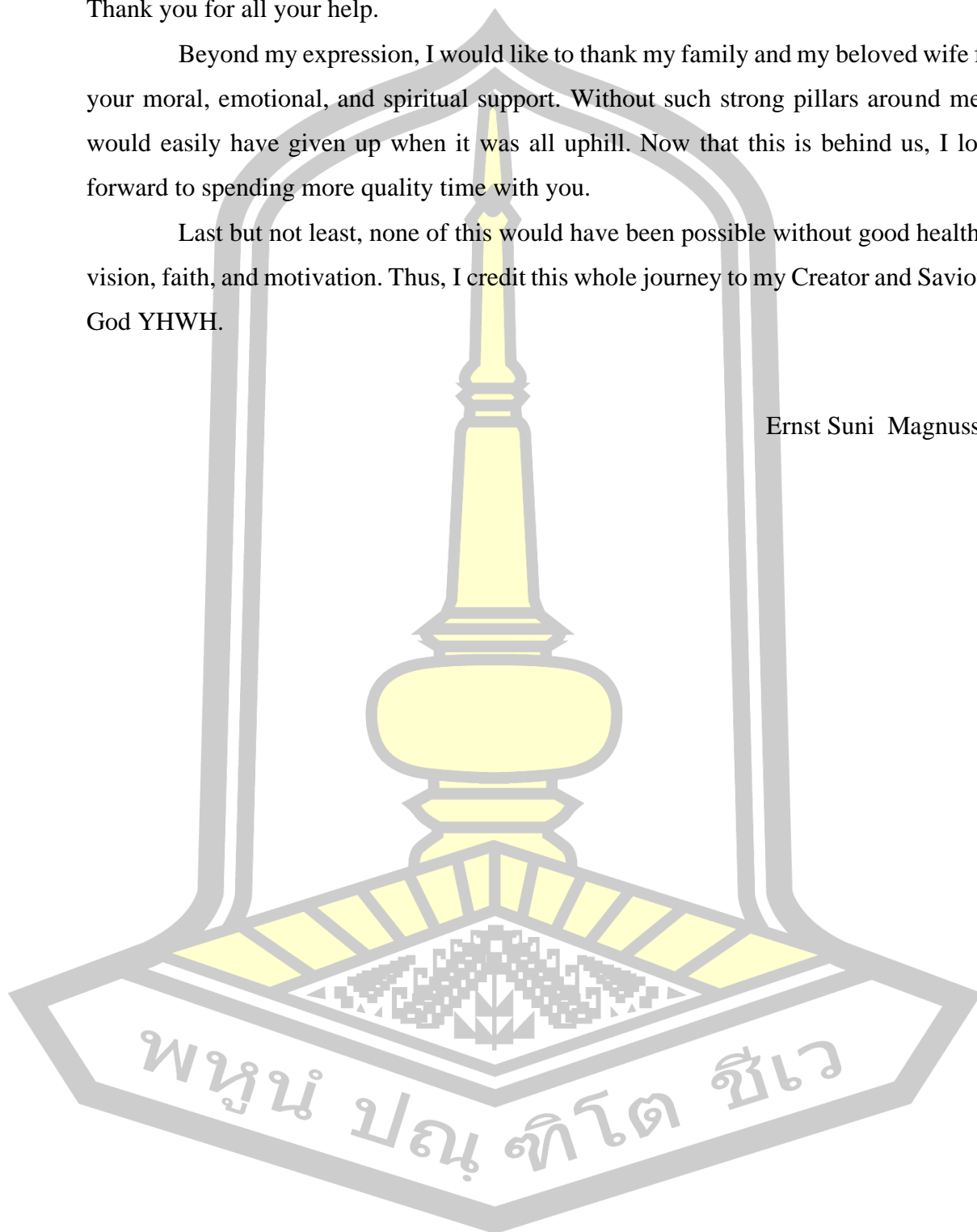
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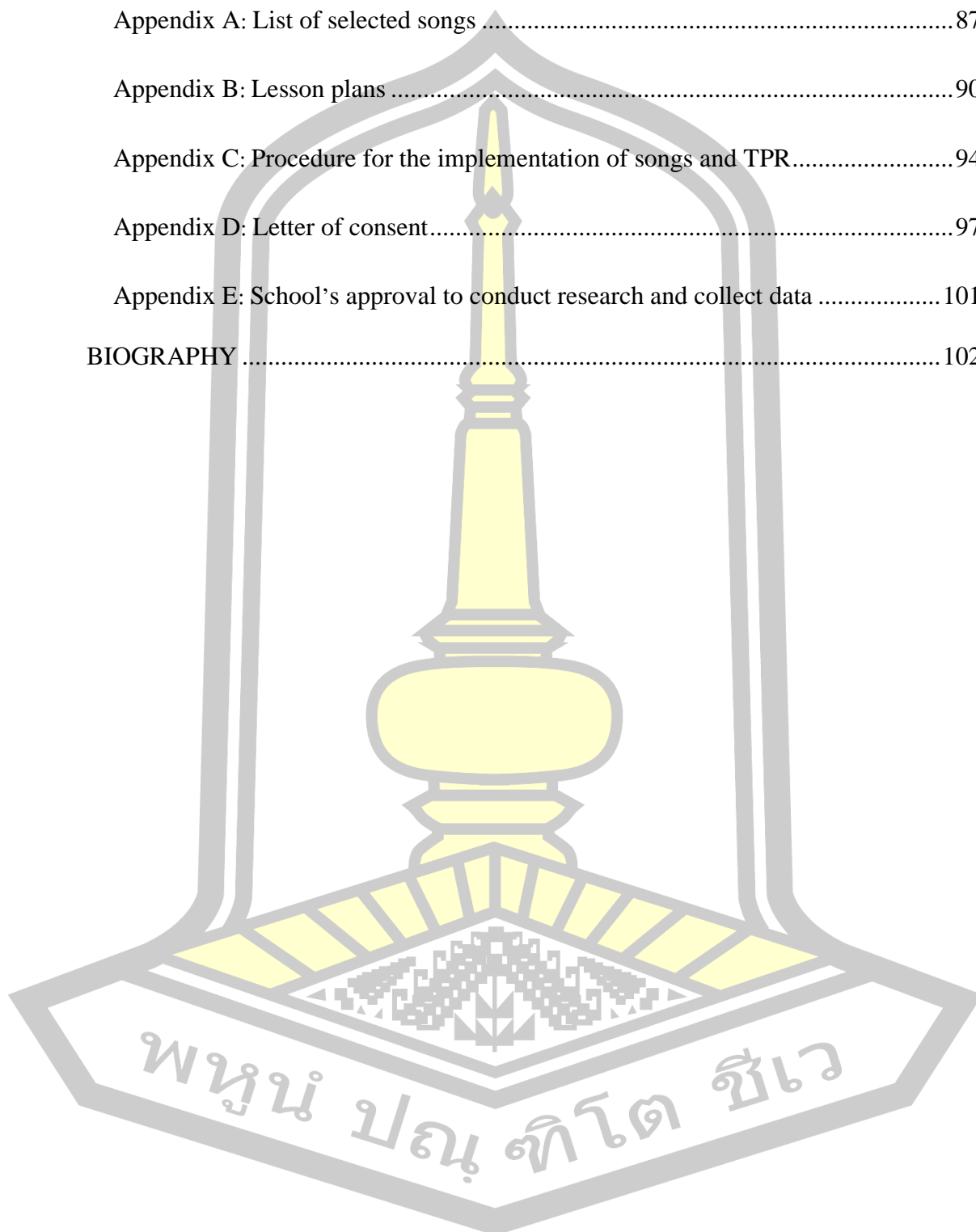
Ernst Suni Magnussen

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CHAPTER I
INTRODUCTION

This chapter presents the background of the study to cover some important factors that lead to this study. Moreover, the purpose of the study, the scope of the study, and the significance of the study reveal what can be expected of this study and why it was essential to do this investigation. Finally, some important definitions of terminology are provided that are specific to the context and setting of the study.

1.1 Background

Words are a stepping stone to language learning, and it is widely acknowledged that vocabulary acquisition is vital to all levels of language learning. The first steps in learning English in the Thai context should, therefore, be carefully established to ensure that the young children in Thai schools get a good start and a firm foundation in their L2. Hence, to investigate how children learn words may play a significant role in how educators implement teaching methods in young learners' classroom.

Without sufficient word knowledge in English, young learners will not be able to understand what is said the classroom, nor will they be able to express their needs to their foreign teachers. What is more, they will be behind their ASEAN peers in reading and writing at all levels in school. Ultimately, the next generation will not be competitive in many areas due to a lack of adequate communication skills in English. Hence, it is of uttermost importance, to investigate the early steps of vocabulary acquisition closer and learn more about what teaching methods promote effective vocabulary acquisition.

Teaching methodology has proved to have a significant impact on young learners' (YLs) vocabulary acquisition (Shin, 2006). Specifically, songs and total physical response (TPR) are known as two methods that work well with young learners. Previous research on the application of these two methods in English as a /Foreign/ Second Language (EF/ESL) classroom revealed several positive factors of applying songs and TPR in

foreign language contexts. Positive contributions such as higher motivation, enjoyment, improved listening skills and bettered pronunciation are important to vocabulary acquisition (Sullivan, 2016, Thao, 2019; Uthaya Kumar & Sandaran, 2018; Bernal Suancha, 2013; Pimwan, 2012). However, the results are somewhat mixed concerning the impact of the methods on vocabulary acquisition, especially in a Thai EFL context. Therefore, more research into how the two methods impact vocabulary acquisition would contribute to the field of vocabulary teaching and learning in a Thai context

It is widely accepted that beginning early with learning a foreign or second language has some advantages to the long-term language learning process (Joyce, 2002; Lightbown & Spada, 2013). Thornbury (2002) argues that the earlier the young learners can acquire the first 2,000 - 3,000 words, the better are the prospects for them to obtain a higher level of English later on in school. Moreover, Lightbown & Spada (2013) found that studies on the Critical Period Hypothesis (CPH) indicated that learners are better at acquiring some features of the language in their early years. For instance, accent and grammar seemed to improve as the young learners are more prone to internalise language programs they are exposed to in the target language (Hees & Nation, 2017). Yet, not much is known about how young learners acquire vocabulary and what teaching methods support young learners' acquisition of words

Although previous research has revealed several positive aspects of using songs and TPR with young learners, relatively little is known about the impact of these methods' on young learners' vocabulary acquisition; particularly in Thai EFL contexts. Therefore, this study aimed at investigating preschoolers' vocabulary learning throughout six weeks of implementation. Also, the current study aimed at providing more insight into the roles of pedagogical methodologies in vocabulary acquisition.

1.2 Purposes of the research
The primary purpose of the current study was to examine the effect of songs and TPR on preschoolers' vocabulary knowledge. It also aimed to explore how their behaviour

may impact their vocabulary learning. Hence, four research questions were formulated to guide the study and address the gap in the literature, as follows:

1. What are the effects of songs and TPR on participants' receptive vocabulary knowledge?
2. What are the effects of songs and TPR on participants' productive vocabulary knowledge?
3. Is there any difference between the teaching methods on Thai participants' vocabulary knowledge?
4. How do the participants react to the teaching methods?

1.3 Scope of the study

The scope of this research covered theories in Second Language Acquisition (SLA) regarding young learners' vocabulary acquisition, teaching methodology, and learning characteristics. Moreover, the aim was to explore further the teaching methods that previous studies found to be effective to enhance young learners' vocabulary knowledge.

Acquiring receptive and productive vocabulary knowledge is essential to successful language learning. Although learning the first 1,000 words in their native language is rather effortless for most children, learning the first 100 words in L2 and be very difficult. Indeed, the importance of vocabulary acquisition cannot be undermined and more must be done to find ways to improve young learners' vocabulary acquisition. Thus, to find ways to aid young learners' to form a firm foundation in their L2 learning is of uttermost importance. Therefore, the focus of the current study was to investigate to what extent teaching methods impact vocabulary learning. As such, this study aimed at contributing to previous studies by further exploring young learners' vocabulary acquisition and what teaching methods may be most suitable for vocabulary teaching. The investigation was done by two tests measuring the participants' receptive and productive vocabulary. One test was given before the implementation of songs and TPR and one after the implementation of songs and TPR. Also, a third test was given to

measure the retention of the word. The data was collected and analysed. Also, video recordings were analysed to find out how the participants reacted to the implementation of songs and TPR.

1.4 Significance of the study

Although several studies have already been conducted on implementing songs or TPR in young learners' settings, not many studies have applied both teaching methods in the same context and compared them. Hence, this study aimed at extending previous knowledge by investigating to what extent songs, TPR, or a mix of both methods, would enhance young learners' vocabulary knowledge. Indeed, this study aimed at looking into the effects of teaching methods on young learners' vocabulary learning in the Thai EFL context.

The significance of the current study is the investigation of young learners' vocabulary acquisition by observing the effects of implementing two teaching methods, songs and TPR. Moreover, quantitative measures were used to measure the participants' vocabulary acquisition and qualitative measures to observe their reactions to the implementations and how it could contribute to their vocabulary acquisition. Therefore, the study shed light on young learners' vocabulary acquisition and how songs and TPR impact receptive and productive vocabulary learning. In sum, the significance of this study is the outcomes of the investigation that hopefully can inform educators on YLs' vocabulary knowledge and the importance of applying appropriate teaching methods to enhance YLs' vocabulary knowledge.

1.5 Definitions of terms

Receptive vocabulary knowledge

Receptive vocabulary knowledge is the ability to recognise the form and meaning of a word in speech and reading. Specifically, for this study, young learners' listening comprehension refers to receptive knowledge of words. (Hees & Nation, 2017).

Productive vocabulary knowledge

Productive vocabulary knowledge refers to the ability to use words in speaking and writing to convey meaning. Specifically, for this study, young learners' speaking ability refers to their productive knowledge of words. (Hees & Nation, 2017).

Vocabulary acquisition

Vocabulary acquisition in this study refers to the process of learning words in the target language. Knowing a word includes receptive vocabulary knowledge and productive vocabulary knowledge, and how both receptive and productive vocabulary knowledge develop on a vocabulary knowledge continuum according to Nation (2013).

Retention

Retention in this study refers to the participants' knowledge of the words after the intervention is completed. Retaining a word is the ability to recall a word's form, meaning, or use in a way that can be measured. Specifically, the participants responded to a stimulator (a picture for the receptive vocabulary test and a question in the productive vocabulary test) by using the receptive or productive vocabulary knowledge already established in the learner's mind.

Reaction

Reaction refers to the participants' reactions such as social interaction which includes verbal and non-verbal communication between students to students and teacher to students. Moreover, reactions include physical movement and emotional response to the interventions. Such reactions can be observed visually by the use of video cameras.

Young learners

Young learners refer to children below 12 years of age, however, a more specific term, "very young learners' is often used to describe children below seven years of age (Shin, 2006). The current study defines the participants as young learners in pre-primary education (Sundqvist & Sylvén, 2016).

Singing

Singing in this study refers to the application of songs for language learning purposes. It is not singing to teach mastery of vocal singing. Instead, it is a way to promote language learning by employing songs that are related to the target words. For this purpose, the need for musical instruments is not necessary.

Total physical response

Total physical response (TPR) is a teaching method that promotes physical movement while learning languages. Movements are believed to stimulate learning, lower anxiety, and improve retention of new words. All the target words in the current study were associated with a body motion that the participants learned simultaneously with the new words.

In conclusion, this chapter outlines the background, the purpose, the scope, the significance, and some definitions important to the current study. In the following chapter, literature related to the current study is reviewed and discussed to establish the theoretical background for this study and to narrow down the gap that guides the research questions.
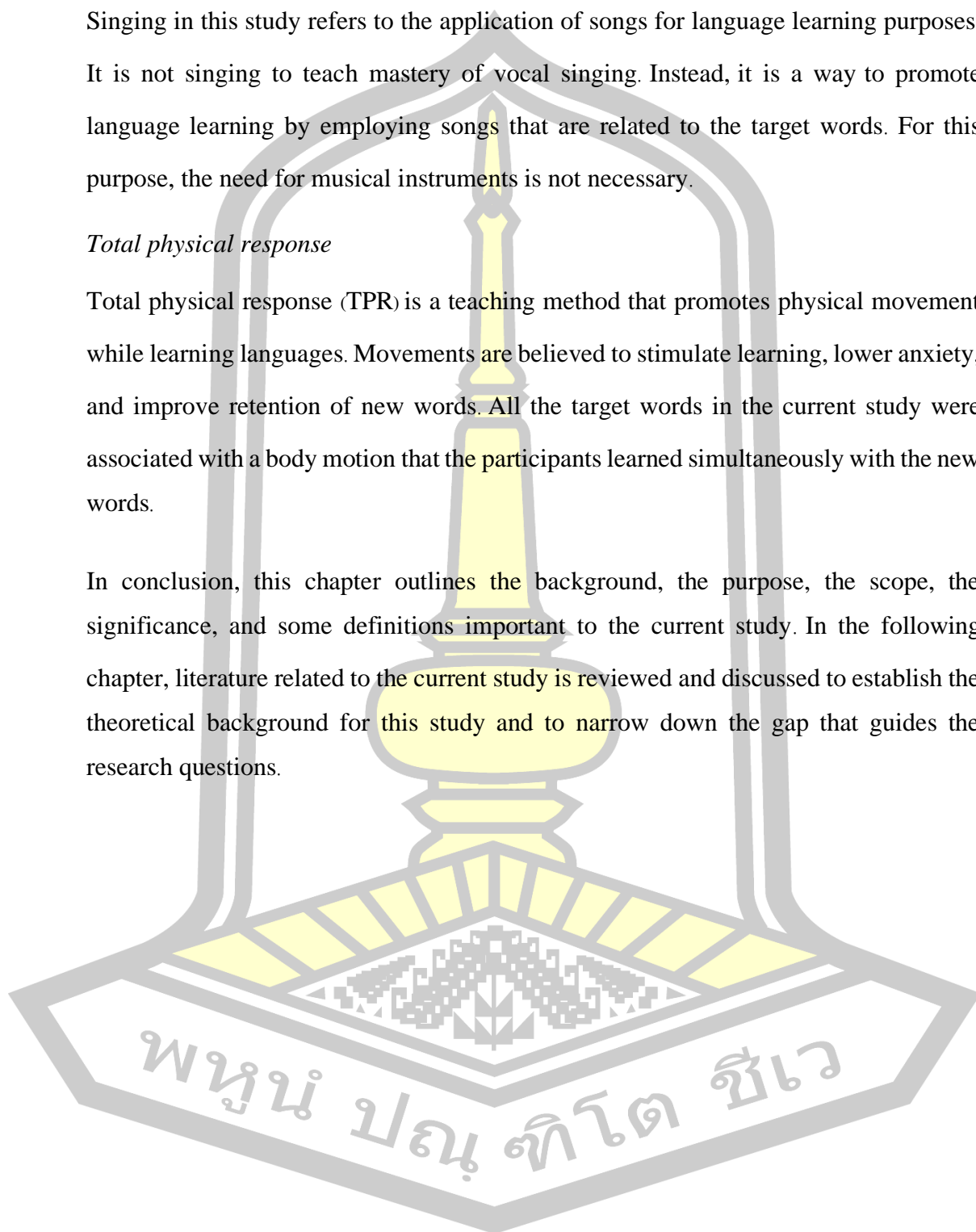
CHAPTER II
LITERATURE REVIEW

This chapter presents the theoretical framework for the current study and reviews previous literature related to young learners' (YLs') vocabulary acquisition and the impact of teaching methodologies on vocabulary learning. As such, the concepts of vocabulary acquisition, including vocabulary knowledge, vocabulary learning, and teaching methods, are outlined. Moreover, previous findings regarding young learners' vocabulary acquisition and the application of songs and TPR are unfolded and discussed. Finally, the theoretical framework and previous findings are linked to the present study.

2.1 Vocabulary knowledge

Knowing words and the various aspects of a word is necessary for successful vocabulary learning. To fully understand the various aspects of a word, some fundamental aspects of vocabulary acquisition need to be in place first. A fundamental understanding of the word is to recognize it when heard spoken or read in a text. So, what learners can recognise from spoken or written texts is considered knowing the word at a basic level. However, there is more to knowing a word than to recognise words when heard or read. Significantly, Nation (2013) defines the three aspects of knowing a word as form, meaning, and use, and assigns each aspect into receptive and productive knowledge, as shown in Table 1.

Table 1: What is involved in knowing a word (Nation 2013: 49)

Form	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelt?
	Word parts	R	What parts are recognisable in this word?
		P	What word parts are needed to express the meaning?
Meaning	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concepts and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

Note: R = receptive, P = productive

As displayed in Table 1, knowing a word must be considered a complex and deep cognitive process which makes teaching words a challenging task.

Furthermore, Nation (2013), based on several studies, concludes that it takes learners 16 meetings of a word to gain sufficient knowledge of it. It means that children need to hear or read a word up to 16 times before they can understand it in spoken or written form.

In addition to knowing a word with regard to form, meaning, and use, it is necessary to distinguish between receptive knowledge and productive knowledge. According to Nation (2013), the distinction between receptive and productive vocabulary knowledge is related to the skills involved. For example, reading a book or listening to a song requires receptive knowledge. As such, receptive knowledge is needed in order to comprehend the input such as listening to a song or reading a book. . Moreover, Nation (2013) found that receptive knowledge is acquired easier and develops faster than productive knowledge as the cognitive load to process input is less compared with productive language output. However, as Nation (2013) has put it: "understanding a word

does not necessarily result in being able to use the word appropriately" when needed in speech or writing. In contrast, productive knowledge or using a word, either in speech or in writing, is more challenging as it requires recall of words and knowledge of how to use it correctly to convey meaningful messages. Consequently, productive knowledge is more profound as it requires knowledge of the pronunciation, spelling, and pragmatics of a word.

Moreover, receptive vocabulary knowledge develops as learners meet words at their level frequently enough and in meaningful ways. In other words, reading and hearing a new word often enough eventually leads to knowing the word receptively;

Besides, learners in EFL contexts encounter new words in L2 almost exclusively in the classroom and are especially deprived of opportunities to use words productively as in speaking. Hence, their receptive vocabulary knowledge often advances faster than their productive vocabulary knowledge. Thus, the importance of comprehensible and level appropriate input in the classroom cannot be understated to ensure progressive development of receptive vocabulary knowledge.

The process of acquiring a word consists of several steps. For example, Thornbury (2002) pointed out that reading an entirely new word separate from its context does not infer much to the reader about its meaning. However, seeing the word gives the learner an impression of the form of the word. Word form consists of parts such as spelling, syllables, and length. Nevertheless, if the word is read without its context, it is hard to know anything about its meaning. Additional tools, such as a bi-lingual dictionary is needed for looking up the meaning of the word. If examples of how the word is used in context are provided, it may help the reader to guess the meaning. Nonetheless, without such examples, guessing the meaning is almost impossible.

Besides, knowing a word is not just to understand its definition but also to know its different aspects such as annotations, close collocations, pragmatics, and register (Thornbury, 2002). Therefore, it is important to consider how to scaffold EFL learners'

vocabulary learning so they can built up their receptive vocabulary knowledge and eventually use the words in speech and writing.

It is important to distinguish between receptive and productive knowledge of words. Although receptive and productive vocabulary knowledge both are a part of the vocabulary knowledge continuum, it is necessary to distinguish between the two. For instance, learners can recognise the sound or spelling of a word, and they might even know the meaning of the word in L1; however, they cannot use the word in their speech or writing. So, learners can acquire receptive knowledge without acquiring the productive knowledge of a word. In addition, knowing a word in different contexts when spoken or written requires even more profound vocabulary knowledge (Miller & Gildea, 1987). Hence, having receptive knowledge of a word is possible without having the productive knowledge of the same word as the two develop differently on the vocabulary continuum.

Although learning words is essential to language learning, vocabulary acquisition does not come naturally to all learners. For instance, EFL (English as a foreign language) learners have minimal exposure to English, and thus, their vocabulary acquisition can often be slow. With only a few hours of English in school and some independent practice when doing their homework, the prospects for effective vocabulary acquisition are limited.

Importantly, before L2 learners can participate in communicative tasks in English, they need to acquire around 2,000-word families to complete communicative tasks such as keeping a conversation, writing a letter, or reading a story. Hence, helping learners to know the different characteristics and features of words so they can make most of the limited time and exposure they have may enhance their vocabulary acquisition (Thornbury, 2002).

Beyond reading or hearing a word and gaining receptive knowledge of a word, the mental process that starts when encountering a new word is worth some attention. Thornbury (2002) outlines how the mental process of learning a word

proceeds. While a word is digested, the brain is working hard to organizing it. As the word is encountered several times, a mental lexicon is created to which multiple paths are created, and connections made with other words and knowledge. Apparently, words are stored with other words with similar sounds (homophones) which often make learners slip with words like chicken and kitchen as they are likely stored close to one another. The way words are stored in the mind is two-fold, form, and meaning. However, most of the time, the mental path to the meaning is stronger. Furthermore, the brain does even more to connect a new word to other cognitive areas, for instance, connecting the word with general knowledge (a kind of an encyclopedia) or with the memory (a form of a mental diary). Thus, the mental process of learning words is complex; yet, significant to vocabulary acquisition.

Although acquiring words receptively and productively is essential to adequate language proficiency, knowing the words is not all there is to language acquisition. Learners need to acquire other aspects of the target language such as grammar, phonetics, pragmatics, and syntax so they can communicate efficiently.

To sum up, knowing a word is a complex interconnected process composed of multiple connections, including syntactic, semantic, phonological, orthographic, morphological, cognitive, cultural, and autobiographical (Thornbury, 2002). Stressing the importance of vocabulary knowledge alone is not sufficient; the significance of vocabulary learning must likewise be addressed. Hence, the role of vocabulary learning is presented in the following section.

2.2 The role of vocabulary learning
Successful communication is only possible when language learners know enough words and how to use them appropriately as stressed by Schmitt (2000) that "lexical knowledge is central to communicative competence and the acquisition of a second language" p. xi. Hence, in this section, the importance of knowing a sufficient amount of words found in previous literature is reviewed. Moreover, Nation (2013) notes how language use and vocabulary knowledge are intertwined: knowledge of vocabulary

enables language use and, conversely, language use leads to an increase in vocabulary knowledge. Furthermore, Nunan (1991) reasons that acquiring a sufficient amount of words determines language learners' success and their communication proficiency as using the language structures and applying its functions depends on vocabulary knowledge. Importantly, Meara (1980) identifies vocabulary knowledge as one of the significant challenges for L2 learners. Likewise, Oxford (1990) points out that vocabulary is "by far the most sizeable and unmanageable component in the learning of any language, whether a foreign or one's mother tongue, because of tens of thousands of different meanings". The size of vocabulary needed for comprehending text and conversations can discourage many language learners or is of such significance that it must be prioritised throughout language teaching and learning.

Vocabulary size can indeed cause challenges as it may take years for learners to reach the first threshold. The first real threshold in vocabulary learning is around 1,000 words. Although 1,000 words may seem overwhelming to young children, the significance of learning them cannot be underestimated as they are used in all texts and conversations. Significantly, Nation (2003: 136) expressed the significance of learning the first 1,000 words:

> The most useful vocabulary that every English language learner needs, whether they use the language for listening, speaking, reading, or writing, or whether they use the language in formal and informal situations, is the most frequent 1000 word families in English. The vocabulary is so useful that it covers around 75% of the running words in academic texts and newspapers, over 80% off the running words in novels, and about 85% of the running words in conversations

Moreover, the importance of vocabulary knowledge and acquisition has been acknowledged by educators and policymakers in Thailand. According to the Basic Education Core Curriculum B.E. 2551 (A.D. 2008), students in Thailand should acquire around 350-450 words the first three years in school, and by the end of primary, they

should have reached 1,050 – 1,200 words (Ministry of Education, 2008). However, one study revealed that the actual receptive vocabulary size in year six was around 480 words and the productive vocabulary size around 292 (Kotchana & Tongpoon-Patanasorn, 2015). At this rate, it would take Thai learners another six years to reach the 1,000 words threshold. Hence, the need to implement effective strategies in classrooms is crucial to help Thai learners acquire a sufficient amount of words so they can reach the vocabulary size needed for effective communication.

Although there are many effective strategies for learning words and good sources to draw from to make learning more enjoyable, explicit teaching and learning vocabulary is often applied. For example, before English exams, students try to cram a vocabulary listen so they can do better on the test, only to forget the words immediately after the exam. Besides, explicit teaching and learning should be used sparsely (Nation, 2003). If every new word needs to be explicitly taught and learned, vocabulary learning is more or less an impossible achievement. Instead, a more thorough approach to language learning must be introduced to learners.

Significantly, Hees & Nation (2017) point out that most new words are acquired through multiple incidental meetings of vocabulary in various sources such as conversations, teacher talk, and reading. Moreover, they draw attention to four aspects of effective vocabulary learning. First, it is important to maintain listening and reading exercises at a level that is comprehensible and meaningful to the learners to avoid that they meet too many unknown words in the text which results in lack of understanding and boredom. In addition, learners' previous knowledge of words can play an important role in learning new words as more words can be connected to words already known; for example, words with a similar sound (homophones) or spelling can easily be connected with a word already known. Besides, learners may need to use English words in other subjects such as maths and science that are useful and meaningful to learn. Also, pre-teaching words before listening and reading exercises is a good way of drawing learners' attention to words. Finally, vocabulary learning strategies such as word

consciousness, word interest, dictionary skills, analytical skills, and guessing strategies are useful tools for them to learn words more efficiently besides developing a positive attitude towards learning.

Furthermore, Hees and Nation (2017) point out that vocabulary-related systems such as prefixes, suffixes, and collocations are essential to language acquisition as they occur in so many words. Native speakers pick up on these systems rather quickly as they acquire around 3,000 words before compulsory education. However, without a significant amount of words, these systems may be poorly established in L2 learners' minds and their ability to learn new structures limited. Drawing learners' attention to learning systems is likely to enhance their vocabulary acquisition.

Importantly, English language learners (ELLs) must consciously learn vocabulary-related systems in school. Indeed, the limited input they get in the classroom, mainly from textbooks, teacher talk, and handouts, slow down the acquisition of vocabulary-related systems. Learners need to be exposed to authentic written and spoken text at their level to ensure that they acquire the words. Conscious teaching of vocabulary and structures needs to be supported by more reading and listening input. Besides, to enhance language fluency, ELLs should be encouraged to produce short utterances that help them move their receptive knowledge to productive knowledge (Hees & Nation, 2017).

Moreover, other vocabulary-related systems that are especially useful for beginners to know are phonics, spelling, sight-words reading, and root of words (head-word derivatives). Incidental learning of such systems requires an abundant amount of input at learners' levels so they can acquire them. Thus, it may take a long time for the learners to acquire the words incidentally (Hees & Nation, 2017).

Importantly, Hees and Nation (2017) present six (learning) conditions that need to be in place for successful learning to take place. All six categories are essential for authentic

vocabulary learning to occur. As soon as one or two of these categories are missing, vocabulary learning is likely to slow down. The six learning conditions are listed in Table 2 as follows:

Table 2: Conditions for vocabulary learning adopted from Hees & Nation, 2017: 40

Learning condition	Receptive/productive	Explanation
Multiple encounters	Receptive	Meeting words a number of times when listening or reading
	Productive	Producing words, a number of times when speaking and writing
Deliberate attention	Receptive attention Productive attention	Deliberately noticing or recalling the word's form, meaning or use
Noticing	Receptive Productive	Paying attention to newly met words and being fascinated with words Noticing gaps in word knowledge
Retrieval	Receptive retrieval Productive retrieval	Meaningfully engaging with words while listening or reading Using and trying out words in speaking or writing
Varied use	Varied receptive use Varied productive use	Meeting and producing words in varied spoken and written contacts
Elaboration	Receptive elaboration Productive elaboration	Learning more about the word, including its form and its meaning and its contextual use

As Table 2 displays, the learning conditions each play a significant role in vocabulary acquisition.

To sum up, leaning a word is a complex process that requires that learners are exposed to the target language with sufficient instruction focused on form, meaning, and use of words. The importance of developing a word-conscious classroom environment is essential in EFL/ESL contexts. The teachers need to be aware of the need for appropriate level input and to provide the learners with plenty of opportunities to explore and use the language in meaningful ways so they can develop good language skills. The role of teachers and teaching in vocabulary acquisition is covered in the following section.

2.3 Teaching vocabulary to young learners

Teaching remains an important part of EFL learners' vocabulary acquisition as they mainly acquired words in L2 in the classroom. Hence, the approaches applied in the classrooms and the role of the teacher must be considered.

Thornbury (2002) stressed that there is a critical amount of words that learners need to acquire to reach their first threshold. Teaching plays a significant role in EFL learners' efforts to reach their first vocabulary threshold. Both intentional and incidental teaching of words is necessary to get leaners well started in L2 learning. Also, vocabulary teaching must consider the impact of L1 and how to take advantage of learners' previous knowledge.

Moreover, Tokowicz (2014) stressed the importance of learning that YLs must acquire high-frequency words to become successful language users. However, EFL learners receive limited exposure to L2 text in their environment, which significantly slows down their acquisition (Silva & Otwinowska, 2018). Hence, effective teaching methods should be applied to help language learners develop vocabulary knowledge and vocabulary learning strategies.

Lightbown and Spada (2013) emphasize the importance of vocabulary teaching and learning in a second language context, as it is almost impossible to develop vocabulary knowledge without some teaching. Moreover, teachers should be aware of the challenges L2 learners face in acquiring vocabulary in the target language. Indeed, as stated by Oxford (1990), learners find vocabulary learning to be one of the most challenging parts of language learning. The mere number of words that are needed for reaching communicative levels can discourage learners. Lightbown and Spada (2013) point out that L2 learners need to acquire at least 2,000 words so they can communicate efficiently. Also, the first 2,000 words are necessary for reading any text, fiction, or technical, as fluent reading requires knowledge of around 80-90 per cent of the words met in the text. If learners do not know a sufficient amount of vocabulary, the reading becomes painfully slow, and their interest to read may quickly be lost. Hence, both

explicit and implicit vocabulary teaching need to be facilitate by the teachers. Also, teachers should draw students' attention on the high-frequency words so they can acquire them as quickly as possible.

Hees and Nation (2017) present an approach to vocabulary teaching for YLs with specific implications and applications. Hees and Nation note that vocabulary teaching has received much attention in previous research, and findings point to the benefits of direct teaching. However, some efforts to measure the results of direct vocabulary teaching disclosed that the learning rate was as low as one word per two teaching hours. Rather than spending too much time on direct vocabulary teaching, a mix of both direct and indirect teaching seems more favourable as it allows learners to acquire the vocabulary explicitly and incidentally. Moreover, Hees and Nation (2017) recommend that the time is spread over the three strands of vocabulary teaching: meaning-focused input, meaning-focused output, and fluency development (Hees & Nation, 2017).

Furthermore, Hees and Nation (2017) stress that vocabulary teaching must be individualised so learners can progress according to their level. Also, vocabulary teaching should aim at challenging those with large and small vocabulary repertoire. Moreover, Hees and Nation (2017) propose some approaches for how to address the issues related to vocabulary teaching. Some vocabulary teaching approaches are suggested by Hees and Nation (2017) as follows: First, teachers can follow the order of vocabulary learning by using bands spanning over the most high-frequency words from 1-3000 to select the vocabulary appropriate for their students' levels. Secondly, teachers can draw students' attention to keywords in the classroom as explicit teaching of words has been found to have a positive impact on vocabulary learning. Thirdly, teaching words can have several advantages such as deepening learners' knowledge of a word and raise their awareness of the usage of the word. Fourthly, YLs' great potential to learn new words should be taken advantage of by introducing a wide variety of vocabulary through engaging and meaningful activities. Fifthly, teaching subject-related vocabulary

is beneficial as leaners need the vocabulary in other subjects. Subject related vocabulary can even be taught in the subject class rather than in the English class. Sixthly, conditions of learning such as recurring encounters, noticing, retrieval, varied use, elaboration, and deliberate attention are worth investing in and raising learners' awareness to, so can develop their language learning strategies accordingly. Seventhly, the use of technology can speed up learners' vocabulary acquisition. However, the software needs to be carefully selected, so it meets the learning goals of the class

Additionally, Hees and Nation (2017) recommend some teaching techniques to draw YLs' attention to vocabulary learning. Firstly, teachers can quickly define the words on the board or ask the students to guess the meaning and in collaboration find the meaning. Also, the students can be encouraged to come up with synonyms or examples of the word's usage. Secondly, clapping out the syllables of the word or spelling it, either verbally or in writing, helps the students see the form of the word. Finally, providing the students with a few examples of how the word is used and some of its frequent collocations can help them to use it adequately.

What is more, Hees and Nation (2017) stress the importance of recurrence as meeting a word once or twice is not enough for it to stick in learners' memory. Hence, teachers need to set up activates that reinforce previous met words. A few activities are suggested as follows. First, the learners can work with words individually, in pairs, and as a class to ensure multiple meetings and some discussion about the words. Secondly, a word-expert activity, aimed at helping the students to think about the word in more creative ways, can include a short writing or drawing activity. Thirdly, designating a wall area in the classroom where students can move words around and make sentences on their own is an excellent opportunity for them to revise recently learned words on their own. Fourthly, making a vocabulary box and filling it with word-cards, their visual representation, their spelling, and sentence example. The cards should be kept well mixed so learners can practice sorting by drawing them back up

and matching them with their equivalent. Finally, a pointing game, where learners can recognise previously learned words and identify them, can be played as a short review activity.

Hees and Nation (2017) also give some implications for teaching and learning: First, unknown and partially know words need direct attention without consuming too much time. The words can be quickly recited using a short chant or a short dialogue. Secondly, words should be revisited in various ways and the meaning and use of each word progressively extended as frequently as possible. Thirdly, recycling words through classroom activities such as word games, classroom discussions, songs, and stories reinforce the memory of words. Fourthly, learners should be encouraged to use words they know well in speaking and writing so they can obtain productive knowledge of them. Moreover, learners should be made aware of the importance of high-frequency words and mid-frequency words. Finally, their attention should be directed towards these words in everyday classroom activities such as counting the members when lining up, useful commands, and common small-talk like talking about the weather.

In sum, the importance of vocabulary teaching cannot be undermined. Therefore, teachers should make use of the various principles, teaching methods, and available teaching activities like the ones' mentioned above. In the next section, the two approaches, songs and TPR, which are used to teach vocabulary in YLs classrooms, are presented.

2.3.1 Songs as a method

Songs have an ancient tradition for educational use and have been used to educate children for as long as we know. Children have learned their tribal history, songs, lineage, and their language by singing with their family and friends. Also, songs have helped preserve cultures and languages close to extinction (Okorodudu, 2014). Moreover, singing engages the right hemisphere of the brain, which is believed to enhance language learning. Furthermore, songs have a social significance as singing in

a group bonds people to the language and the message of the song. Hence, there can be no doubt that songs have educational value transferable to language teaching and learning (Davis, 2017).

Research related to the effects of using songs with YLs' learning languages provides us with helpful insights that can direct instruction in EFL classrooms. Shin (2017) argues for using songs with YLs as there are many benefits of singing in ESL/EFL classrooms. Research implies that music was human's first intervention, and music and singing are an integrated part of human life as most people enjoy singing, making music, and dancing. Moreover, many attempts have been made to apply music to English instruction, but often singing is just used as fill-in activities with hardly any connection to the rest of the content of the class.

There are so many natural aspects of singing that contribute to language learning; hence, singing and using songs to teach languages is widely used in L1 and L2 classrooms (Shin, 2017. Moreover, Shin (2017) presents the following arguments for songs and music in children's development. First, children naturally tend to initiate movement and dance to beats and rhythms they hear in their environment. Secondly, music, movement, and rhythm develop together as interaction with music and songs is progressive in children's development from simple clapping along with a tune to singing along and moving at around four years old. Thirdly, music is essential to a child's development throughout the primary years as their choice of music changes as they grow.

Furthermore, Shin (2017) argues based on the advantages of applying singing in English classrooms such as stimulating the brain and activating it more deeply while learning. Such cognitive engagement enhances language learning, lowers anxiety effects, and positively influences emotional and social factors. Hence, singing songs in the classroom helps learners using the language without fear; it helps them remember words and phrases better and improves their reading skills.

Songs have various use in the classroom; however, singing related to language learning needs to be structure, so it helps the learners to acquire the target language. Specifically, Shin (2017) lays out how the application of singing songs in the classroom can be multifaceted to avoid monotonous repetition of songs. First, songs need to be carefully selected and meet specific criteria. For instance, jazz songs are good alternatives to nursery rhymes as they are easily adjusted, text can be added, the tempo changed, and no instruments are needed. What is more, motions should be intertwined with the songs as gestures make songs livelier and help retention of content and details.

Additionally, Shin (2017) provides some pedagogical steps for teaching songs as follows: First, the topic of the song should be introduced and keywords highlighted; known and unknown words. Secondly, listen to the song to get a feel for the tune, rhythm, and the refrain. Thirdly, implicit teaching of the lyrics. The refrain should be taught first, then each stanza while repeating the refrain after each stanza. Fourthly, draw the children's attention to the meaning of the song and use L1 appropriately. Also, any realia useful to convey the song's meaning should be introduced. Finally, hand and body motions should be incorporated as fitted for the song.

Moreover, Shin (2017) suggests some alternative activities for listening and doing as follows: First, the use of finger play (like in Itsy Bitsy Spider). Secondly, allow children to point at pictures that illustrate words in the song. Thirdly, the children should be encouraged to move, dance, and make motions that work with the song. Fourthly, the song's story can be acted out in a separate play. Fifthly, drawing a picture of something from the song is a creative way of engaging the learners. Sixthly, use pictures to sequence the song's storyline. Finally, do a fill in the missing word activity either in writing or orally as is fitted for the students.

Davis (2017) found in nine other studies, some advantages with singing songs and some positive impacts singing has on vocabulary learning. First, Davis and Fan (2016)

compared singing songs with choral repetition with a control group and found both singing and choral repetitions enhanced vocabulary production, but neither method was better than the other. Likewise, Medina (1990) compared two groups, one singing a story text and the other reading it, found that both groups improved their receptive vocabulary significantly, but the differences between the two methods were insignificant. Moreover, four of the studies reviewed in Davis (2017), comparing control groups with intervention groups, found that songs had a positive impact on receptive vocabulary. However, only one study was able to measure a significant change in the participants' productive vocabulary on the post-test.

Furthermore, songs also have a positive impact on learners' motivation. Davis (2017) refers to five investigations that observed the participants' motivation. All studies concluded that songs had a positive impact on younger learners' motivation. In addition, Huertas and Parra (2014) observed that most students enjoyed singing; yet, some children were only pretending to sing and were just mimicking their teachers or peers. Hence, the apparent enjoyment the children may express while singing is perhaps not a good indicator of the pedagogical value of the method.

Although Davis (2017) found many reports of positive effects of using songs with younger learners, there are also some apparent issues teachers need to be aware of to teach songs effectively. First, although it sounds like the whole class is singing, Huertas and Parra (2014) observed that some participants were moving their lips but not singing. Although it is assumed that singing provides learners with natural ways of using the language and repeating target words frequently, Leśniewska & Pichette (2016) study found that the learning rate of the target words was 50 per cent after 60 exposures which must be considered low as Nation (2013) approximates 16 meetings with a word to suffice for acquisition.

In sum, singing is an integrated part of human life and has been used for educating children at all times. The transition from using songs in daily life into the classroom requires some structure and planning to benefit language learning. Teachers who follow

the useful steps provide above for implementing songs in the classroom and selecting the right song can expect to see children engaged with L2 learning in a meaningful and fun way.

2.3.2 TPR

James J. Asher developed the total physical response, better known as TPR in the 1960s-70s. Asher was inspired by the earlier development of including physical movement in language teaching. Also, as a psychologist, Asher was concerned with how the right hemisphere of the brain could be more activated in language learning. Until then, the translation method and the audio-lingual method had dominated language classrooms, and these approaches encouraged activation of the left hemisphere only. Hence, with Asher's TPR approach, learners could enjoy a less stressful learning process and, more importantly, a more successful approach to engage with a foreign language and acquire it (Brown, 2007).

Notably, Asher was not the first one to approach language learning with physical movement. Instead, he elaborated on previous efforts by educators in the early 20th century who had applied a similar approach to language learning; however, their publications did not spread widely (Richards & Rodgers, 2014). Indeed, Asher made motor learning successful and popularised in California, and from there, it spread around the world. Now, it is commonly known by its abbreviation TPR and is widely used in classrooms all over the globe.

Moreover, from observing children learning L1 from their parents, Asher noticed that most of the language children are exposed to consist of short commands such as "pick up the banana" or "stop making that noise" (Brown, 2007). Besides, children's interaction with their parents often results in simple actions according to the adult's utterances. This lead to the assumption that children acquire language by listening to simple commands and physically responding to such commands. Hence, physical movements should always be demonstrated first, following an oral demonstration (Richards & Rodgers, 2014). Therefore, Asher concluded that much of early language learners' speech consists

of short chunks accompanied by physical movements that reinforce the given commands (Brown, 2007).

Furthermore, Asher assumes that adults can learn L2 like children learn their L1 from their parents. Importantly, receptive comprehension should always proceed with any efforts to produce the language. The process of acquiring L2, according to Asher, develops in the following steps: First, learners must comprehend the target language before they begin to produce it. Secondly, they should acquire their first threshold of the target language before they are taught speaking. Thirdly, when students have done plenty of listening and have sufficiently acquired the language, they can transfer their knowledge of the language to other skills such a speaking, reading, and writing. Fourthly, focus on meaning is more important than focus on form (Richards & Rodgers, 2014). Thus, Asher's use of TPR encourages an abundant amount of input from the onset based on the assumption that learners internalize what they hear and read. Only after a sufficient amount of input and internalization of the target language should learners be taught speaking and be encouraged to use the language. Asher's theory of language is focused on verbs in the imperative form. Thus, it is a grammar and structuralised approach. Asher's divides language into two main categories, namely, abstractions and non-abstractions. Non-abstractions are considered to be the more accessible parts of the language, such as concrete nouns and imperative verbs. Indeed, non-abstractions should be acquired first. By internalising the non-abstractive language first, learners construct an internal language web that functions as a foundational structure for that language. Abstractions are taught later, as they are considered more challenging to learn (Richards & Rodgers, 2014). If the non-abstraction foundation is well established, the abstractions can more easily be added.

Asher's theory of learning is premised on three concepts: First, stimulus results in a response, which is similar to traditional behaviouristic language approaches. Secondly, the left and right hemispheres play different roles in language learning. Finally, learning

is induced when stress-levels are low. Likewise, retention is better when anxiety is absent or low.

The three concepts of learning theory are based on Asher's observations of how children learn their first language. Asher's observations are similar to those in the Natural Method and the bio program, which develops in three steps. First, while children listen and acquire the language, a mental web for L1 is constructed. Secondly, children acquire language more rapidly with motor-movements when their parents order them to do something that immediately requires an action; for instance, "Johnny pick up your fork" or "Jenny, take the peel out of your mouth." Thirdly, as the language is sufficiently acquired, speech follows naturally (Richards & Rodgers, 2014).

Additionally, the bio-program includes some concepts of brain lateralisation that influence this approach. Asher believes that the brain is wired for languages; L1 and L2. Indeed, the left and the right hemispheres of the brain play different roles in language learning, but most language learning occurs in the left hemisphere. The activation of the right hemisphere with physical movement, thus, enhances learning as the physical movement helps learners relax. Finally, relaxed learners with low levels of anxiety are likely to acquire the language better (Richards & Rodgers, 2014).

The procedure for TPR in the classroom could follow the following steps. First, students listen to a constructor giving the commands and acting them out. Then, they listen and repeat the actions without repeating the words. Importantly, the teacher is at the centre and leads the class with pre-selected commands and chunks.

In sum, there are some advantages and disadvantages to using TPR in the classroom. The advantage of allowing children to move while learning is important to keep in mind as children naturally enjoy movement. Also, some humour can easily be added to the physical activity with some highly imaginative commands such as "put your toes in your ears" or "place the scissors on the teacher's head." On the other hand, there are some

disadvantages to this approach, for instance, the construct of short commands and chunks, which are not always applicable in compound sentences. Hence, TPR makes a beginner-friendly approach that explicitly enables learners to listen and speak in the target language (Brown, 2007).

2.4 Related studies on vocabulary teaching and learning

In addition to the theoretical framework established above, the need to examine recent studies related to the current is necessary. Below are some of the previous studies accessible to the researcher summarised and related to the current study.

Joyce (2016) found story-singing and story-reading to be effective methods to teach new vocabulary. Story- singing and story-reading were compared between two groups of about 35 children in each. Each group was divided into two classrooms and were given a four days intervention. A pre-, post-test scheme was applied to collect quantitative data. In addition, qualitative data were collected by observations of classroom interaction and interviews with teachers and students. The findings revealed that both singing a story, and reading the story enhanced vocabulary acquisition significantly. Also, the findings revealed that singing and other repetition is helpful for retention of new vocabulary. Besides, classroom discussion and interaction about the target words are helpful to vocabulary learning. Finally, using pictures to illustrate the target words and leave them on display during the intervention is a productive aid in vocabulary teaching.

Moreover, Sullivan (2016) noted that music had become a low priority subject in schools in the U.S. However, most kindergarten teachers are well aware of the utility of music in children's education. Qualitative data were collected by applying focus group interviews with teachers, interviews with kindergarteners, and classroom observations. The findings reveal that music indeed has a positive impact on kindergarteners' learning and their participation in classroom activities

In a review of five empirical studies applying TPR, Asher (1966) summarises some of the findings. All five experiments compared TPR with another teaching approach to

measure the retention of the selected target language (words, phrases, complex sentences, and compound sentences). The first three studies were an extension of a pilot study conducted with three children learning Japanese. The pilot study revealed almost perfect retention of the target words. Hence, the findings in the pilot study were tested in five consequent studies. In all five studies, during the TPR session, the participants listened to a recording of the target language and acted out the command with an instructor simultaneously. Hence, Asher (1966) concluded that that TPR, indeed, is highly efficient in second language teaching. Learning new words and phrases by repeating them and simultaneously making body-movements is both more productive and enjoyable compared to traditional activities, including repetition of writing or speaking. Finally, longitudinal studies are recommended to ensure long-term effects from using TPR in second language teaching.

A more recent study by Samir (2017) was conducted with 60 students in year two to investigate the impact of TPR on learners' pronunciation. The experimental group was taught using TPR, while the control group was taught using a conventional method. A pronunciation test was applied after the intervention, and the results revealed that the experimental group improved their pronunciation significantly more than the control group. Hence, the study found TPR to be useful for improving learners' pronunciation.

2.5 Summary of the current study

The currents study aimed to contribute to the field of SLA by conducting an investigation. The research project would provide more empirical data about YLs' vocabulary acquisition. Previously, songs and TPR have been found competent to teach YLs English. Nevertheless, the specific impact of these two methods on YLs' vocabulary learning is underexplored in a Thai EFL context. Hence, investigating which of these two methods were more useful to teach the selected target words was believed to be a contribution to previous studies.

Singing has been found to be effective to teach languages as songs present learners with authentic language in a fun and communal way. Children naturally enjoy singing and learning from them. Hence, songs are useful in EFL settings with YLs.

Likewise, TPR is effective to teach YLs as body movements associated with language learning is an engaging and interactive way of learning essential chunks of the target language associated with physical movements. The physical part enhances learning and retention of words and chunks. Thus, TPR is a useful tool in YLs' classrooms; especially in an EFL context.

This chapter has outlined what previous literature reports on young learners' vocabulary acquisition and how songs and TPR can be used to enhance young learners' vocabulary knowledge. In the following chapter, the research methodology is outlined.
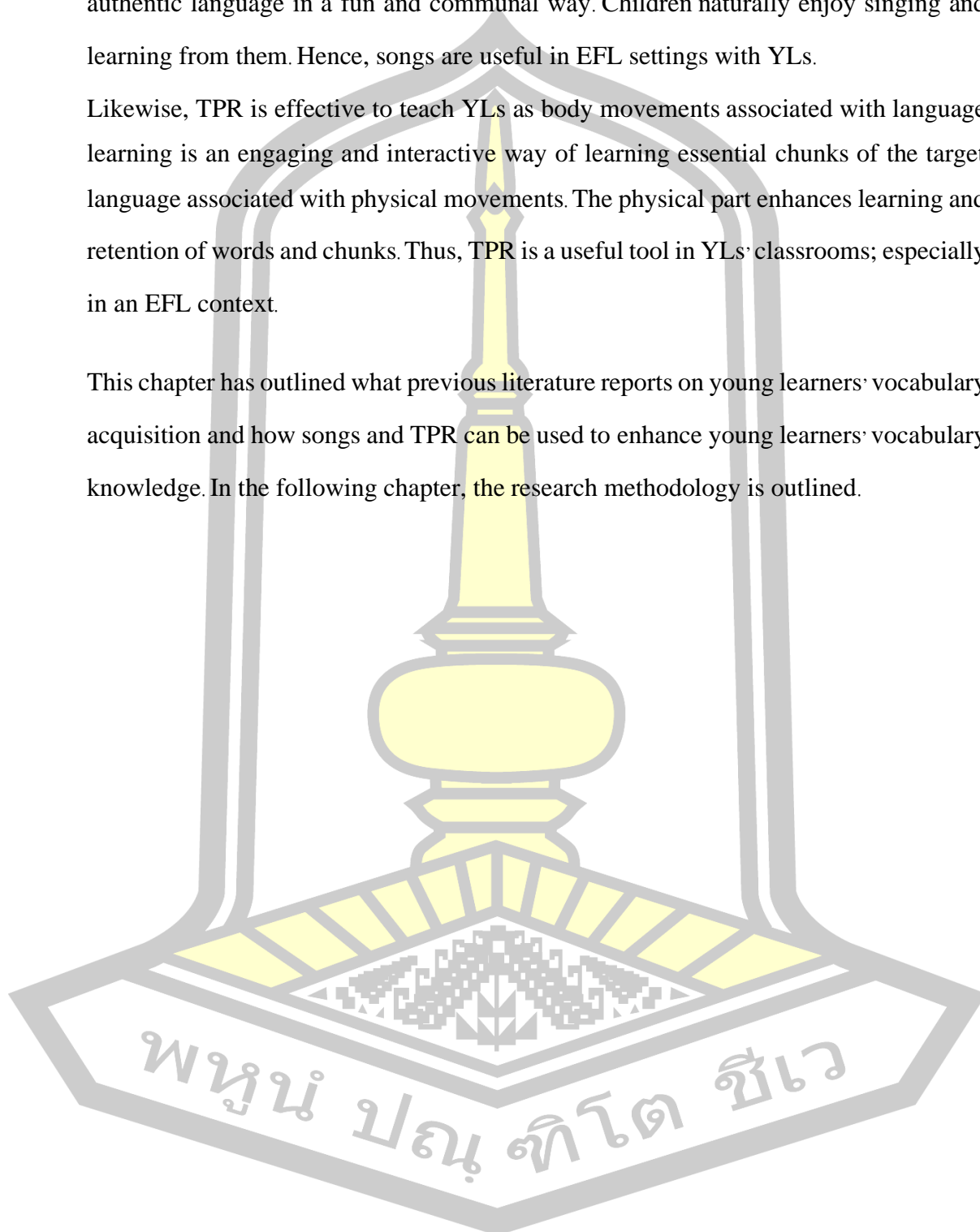
CHAPTER III
RESEARCH METHODS

This chapter outlines the research methodology of the current study, including the participants, instrumentation, methods, procedures, and data analysis for both quantitative and qualitative design.

3.1 Participants and setting

The number of participants in the current study was 72. As expected, the number of participants included in the study was lower than the number of children in the intact classrooms. At the beginning of the study, there were 95 participants; however, not all of them were present for the pretest, post-test, and delayed post-test. Hence, data was collected from the 72 participants (N=72) that participated in all tests. Only the participants that participated in all three tests, pre, post, and delayed post-test qualified for inclusion in this study. The number of participants in each classroom was 22 in the TPR group, 22 in the singing group, and 28 in the TPR and singing group (hereafter TPR&S) group.

The participants were four to five years old and were learning English in a Thai EFL context in a pre-school located in north-eastern Thailand. Moreover, they were all Thai nationals and had Thai as their native language (L1), except for one bi-lingual child; English and Thai. English was, therefore, considered a foreign language to the participants. Although some of the participants might have had some exposure to English at home, most of them were only exposed to English in school. Most of those participants who were exposed to English outside of school had parents who had studied abroad. Some of the participants' parents might have encouraged their children to use technology for learning English or take private tutoring classes. Hence, some of the participants may have been exposed to some English in their home and after-school environment. However, most of the participants were not exposed to English in their homes or through any media. Thus, although a few of the participants were exposed to

English outside of school, the great majority could be considered complete beginners at the onset of the study.

Furthermore, the three experimental groups were kept intact as it was believed to benefit the children to remain in a familiar and safe environment. Young children are socially and emotionally dependent on their teachers and friends, and any significant changes to the environment could have negatively impacted their participation. Moreover, the participants as a whole were considered a homogenous group as they had similar social and economic backgrounds.

Importantly, all participants were minors at the onset of the study, and for ethical consideration of their participation, informed consent was produced. The informed consent explained the purpose of the research, how data was collected, and the expected outcomes. Also, it contained a request for permission to have the children participating in the investigation (see appendix D). Finally, it was translated into Thai.

The setting for the current investigation was in a preschool and kindergarten program affiliated with a local government university in the north-east of Thailand. English was taught in every class five days a week, 30 minutes a day.
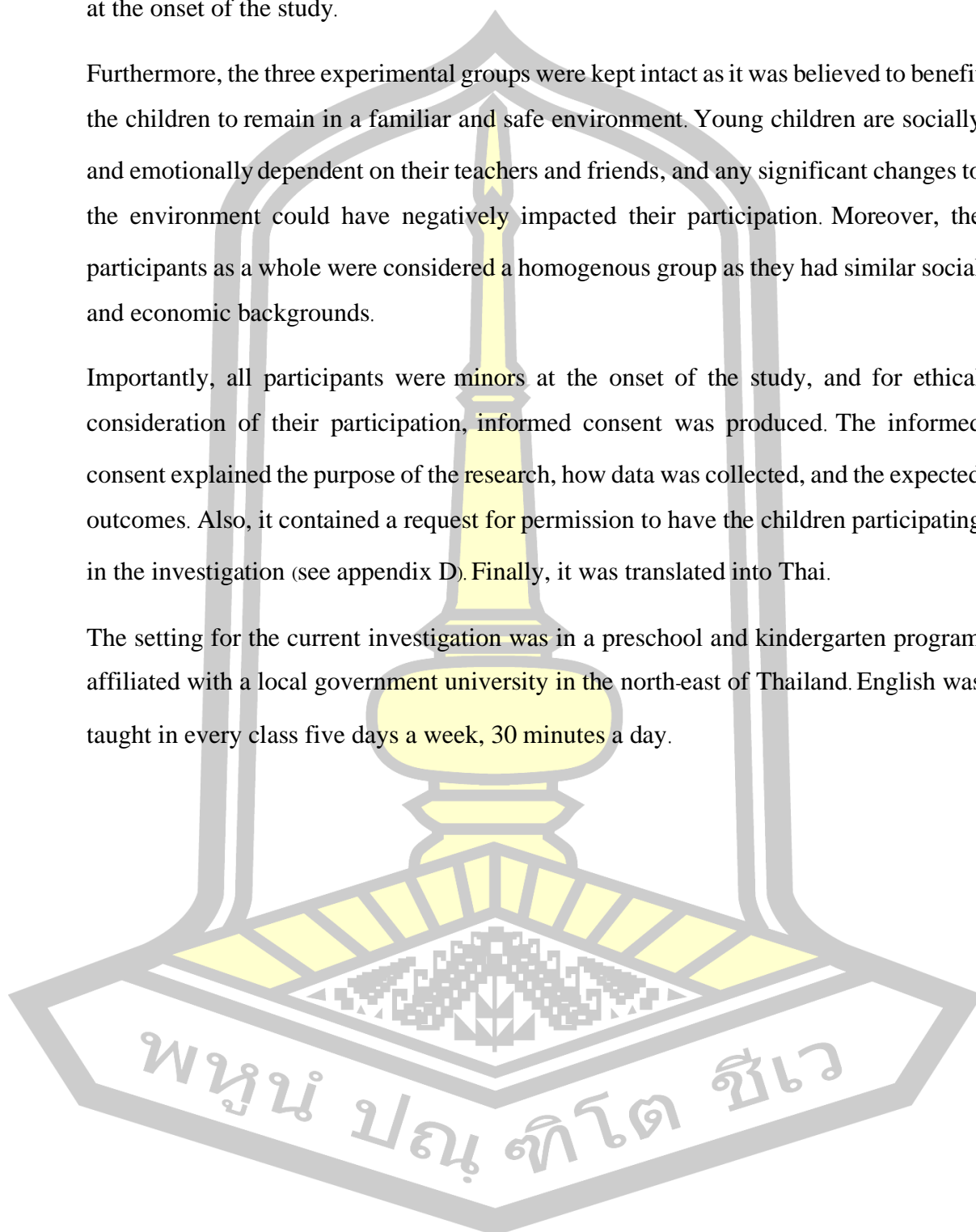
3.2 Research instruments

Two vocabulary knowledge tests were applied in the current investigation. One test measured the receptive knowledge and the other productive knowledge of the target words. Both tests measured vocabulary knowledge without requiring reading or writing.

The productive vocabulary knowledge test was adapted from the Expressive One-Word Picture Vocabulary Test (Brownell, 2000). During the test, one picture representing the target word was presented to the participant, and the participant was encouraged to produce the word they thought the image represented. Productive language in English and Thai was allowed for this part.

A scoring rubric was used to assess the participants' productive vocabulary knowledge as presented in Table 3

Table 3: Rubric scores for productive vocabulary test adapted from Sukying (2018)

| Rubric	Sampling	Score
Nothing comprehensible is produced, or the wrong answer is given	-	0
The word is familiar, and the word with the correct pronunciation is given in Thai	ปรบมือ	1
The word is familiar, and the word with the correct pronunciation is given in English	Clap	2
The word is used with partial semantic appropriateness in a simple sentence in English	Clap I I am clap.	3
The word is used with semantic appropriateness and grammatical accuracy in a simple sentence in English	I can clap. I can clap five times. I can clap and sing. I am clapping.	4

In addition, the receptive vocabulary knowledge test was developed based on the Peabody Picture Vocabulary Test – 4th edition (PPVT) developed by Dunn and Dunn (2007). The test included the same 12 target words. Each target word was displayed with a picture simultaneously with two other images; functioning as distractors. One point

was given for pointing out the corresponding picture for the spoken target word and no point rewarded if several pictures were pointed out randomly, or if no picture was pointed out. The participants were given a few seconds for each question to identify the corresponding image. The scoring rubric presented in Table 4 was used to assess the participants' receptive vocabulary knowledge.

Table 4: Rubric scores for receptive vocabulary test adapted from Sukying (2018)

Rubric	Score
Receptive comprehension of the word is insufficient, and the wrong picture is selected	0
Receptive comprehension of the given word is sufficient, and the correct picture is selected	1

Moreover, qualitative data was collected with hidden video cameras. The cameras were installed in each classroom as surveillance cameras but were used in the study to observe the participants during the intervention. A demonstration of the position of the camera and its caption of the classroom is displayed in Figure 1.
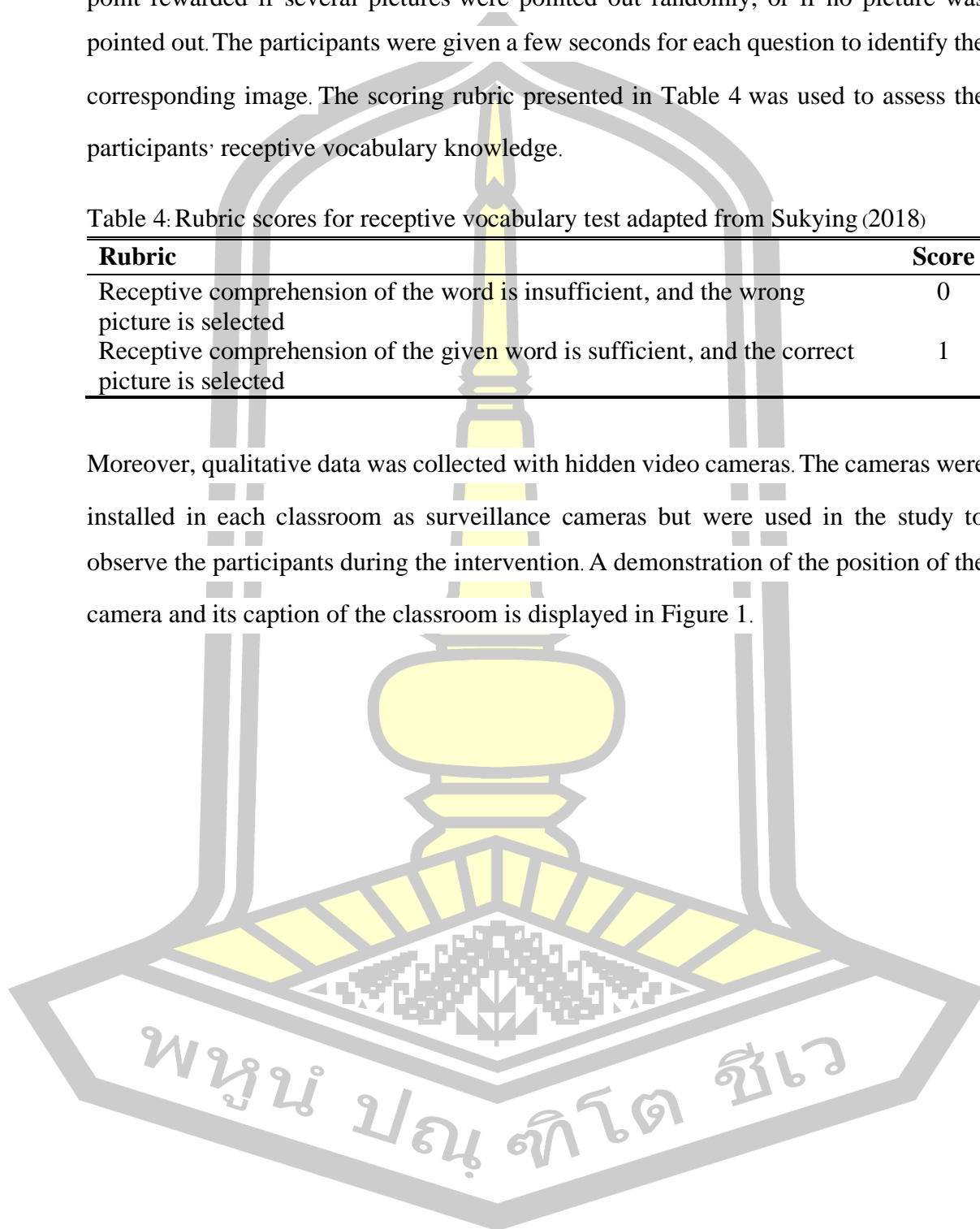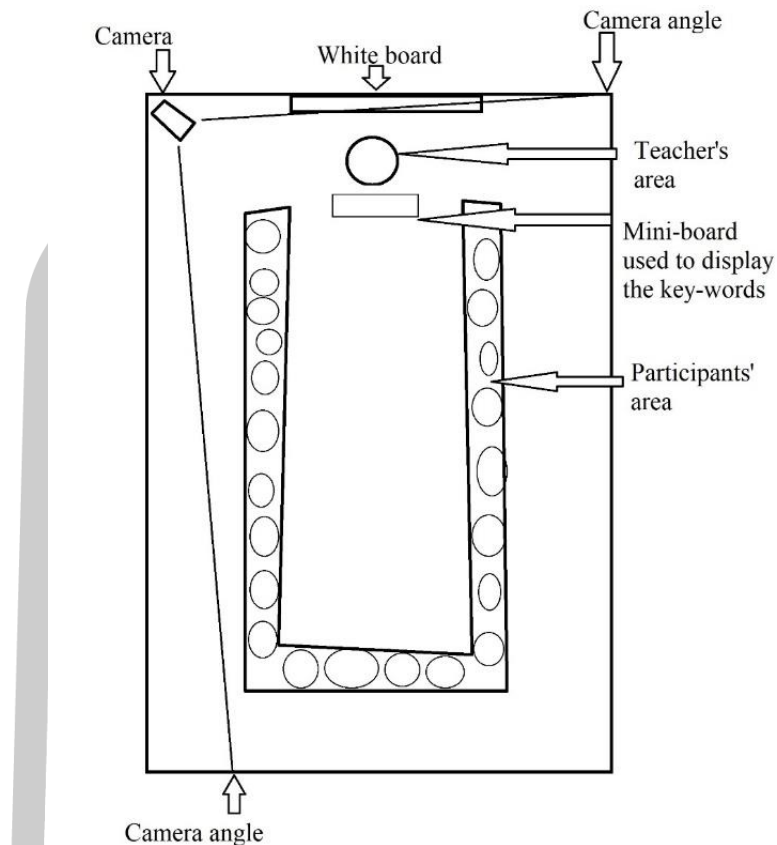
Figure 1: The hidden camera's caption of the instruction area

With consent from the school (Appendix D), video recordings from the period of implementation were collected from the storage drive where all the recordings from the surveillance cameras were stored. Only recordings of the implementations were collected and stored. The analysis focused on how the participants reacted according to the pre-selected themes during the intervention of each teaching method and how the participants' reactions impacted their vocabulary acquisition. That is to say, how their levels of social interaction, their physical reactions, and their emotional expressions enhanced their vocabulary acquisition.

3.3 Research procedures

To answer the quantitative research questions, data were collected by applying two vocabulary tests. The tests measured the participants' receptive and productive knowledge of the target words.

To answer the qualitative research question, samples of the video recordings from the classrooms were analysed, and the data coded according to three preselected themes related to SLA theory. The themes were selected according to aspects of SLA that have been found to impact vocabulary acquisition. The analysis of the video recordings was intended to shed light on the significance of the participants' reactions to the teaching methods during the intervention.

This study was mixed-method research (MMR) combining quantitative data collected from an experiment and qualitative data collected from video recordings. According to Weyers, Strydom, & Huisamen (2014), inter-triangulation allows the researcher to collect both qualitative and quantitative data by merging information from two or three sources of data. Moreover, this design is likely to save the researcher some time and resources. On the other hand, it may be strenuous for a sole researcher to collect and analyse two kinds of data as he has to collect two kinds of data concurrently (Paltridge and Phakiti, 2015).

The quantitative data collected by tests were obtained after each test and filed for later analysis to answer the qualitative research questions. Moreover, the data collected by video recordings were analyzed and coded according to pre-selected themes related to SLA theory to address the fourth research question.

The MMR research design applied in the current study is illustrated in Figure 2.
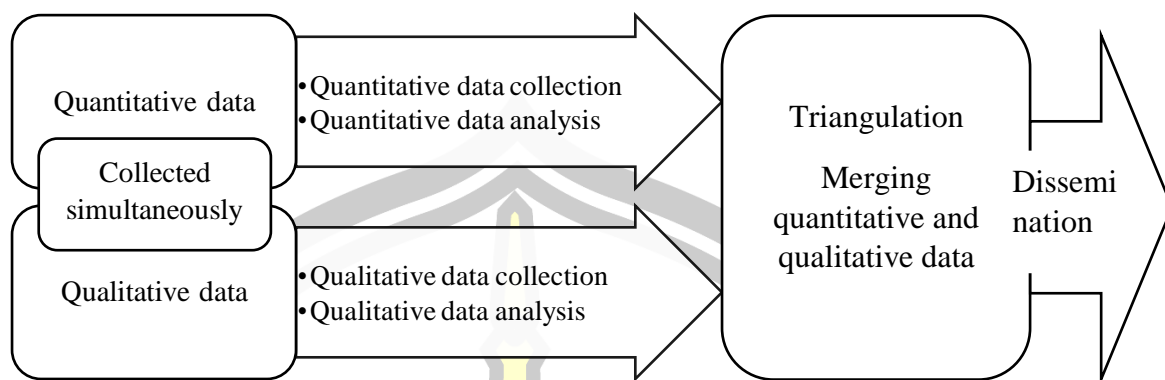
Figure 2: The research design illustrated (adapted from Scott et al., 2018)

The research procedure developed in five steps as follows: pilot-study, pretest, intervention, post-test, and delayed post-test The pilot test was conducted to find the most suited target words and to ensure that the images representing the target words were clear. The pretest was conducted over two days before the intervention began. The post-test was conducted the day after the implementation ended and lasted for two days. Finally, the delayed post-test was conducted two weeks after the implementation ended to test the participants' retention of the target words. The procedure for the research is displayed in Figure 3.
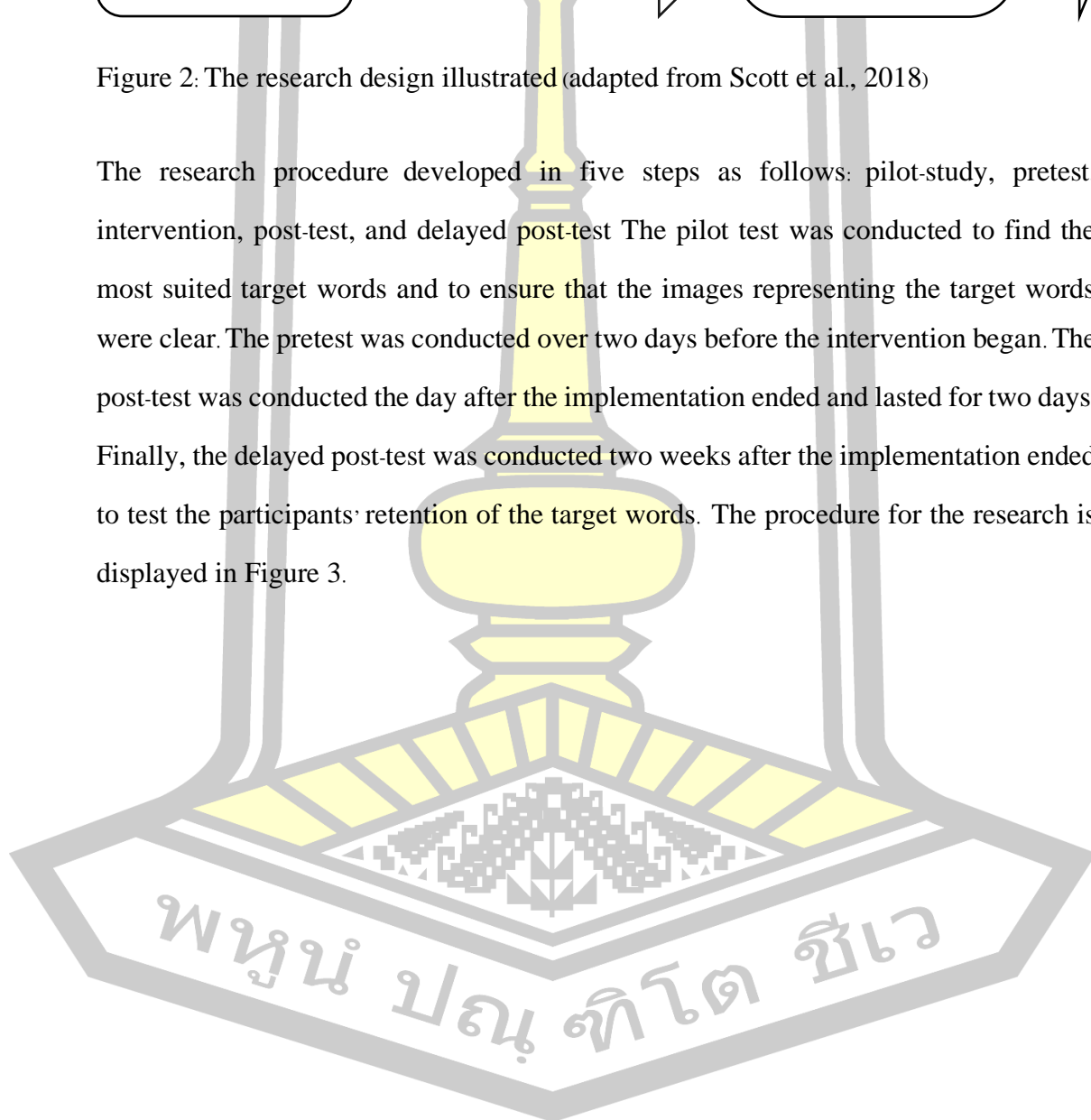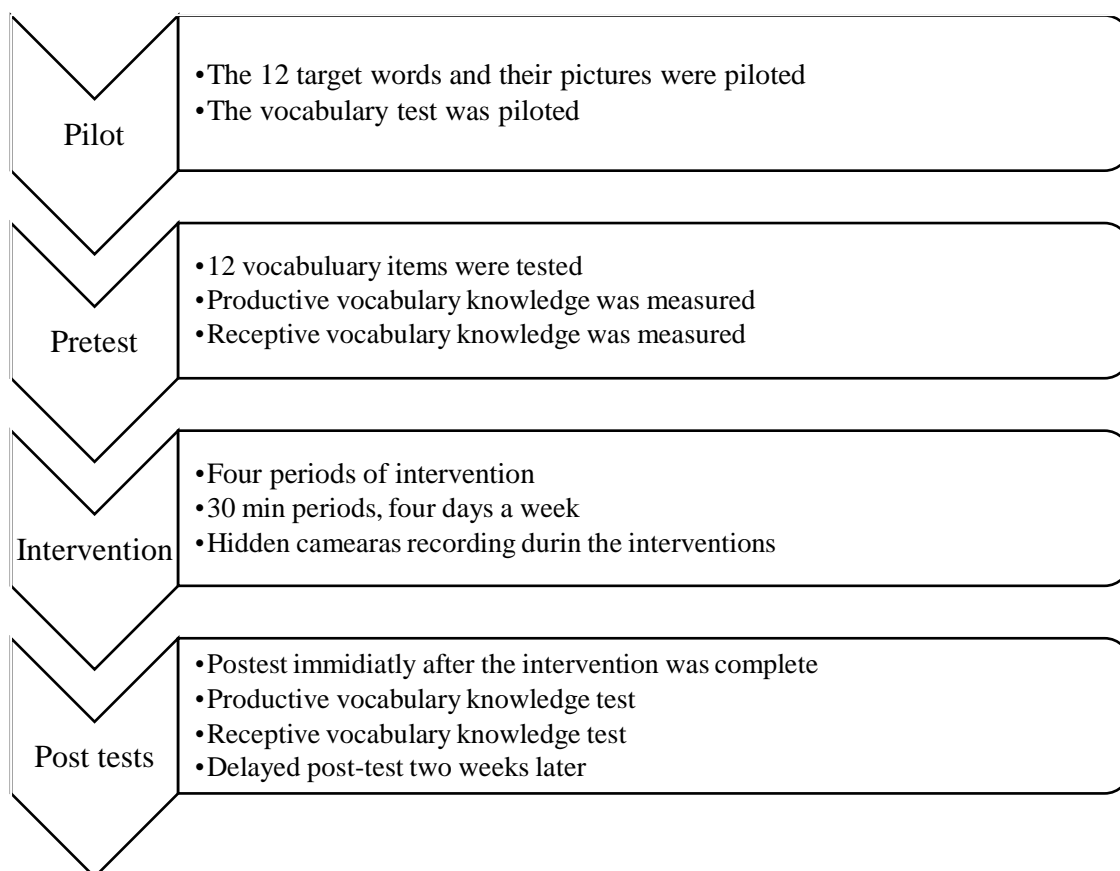
Figure 3: The research procedure

3.3.1 Test procedures

The test was computer-based with the pictures displayed on a monitor using the online platform Google Forms, which at the same time, collected the data from the participants' answers. The researcher, with the help of an assistant, supervised the participants as they were selecting the pictures they deemed equivalent to the uttered word. One participant was tested at the time. First, the researcher collected the participants' personal information and then he proceeded with the receptive vocabulary test. The following day, the participants did the productive vocabulary test following the same procedure.

3.3.2 Word selection

The 12 target words, six nouns and six verbs were carefully selected following specific criteria such as frequency and relevance. Hence, the NGSL (Browne, Culligan, & Phillips, 2013) was used to check for frequency and the English Vocabulary Profile

(English Vocabulary Profile, n.d.) to check for level appropriateness in A1-A2 scales as shown in Table 5.

Table 5: Selecting the 12 target words according to word-lists

	Nouns	CEFR	NGSL	Thai NC		**Verbs**	CEFR	NGSL	Thai NC
1	Book	A1	192	Included	7	Talk	A1	82	Included
2	Room	A1	413	Included	8	Play	A1	166	Included
3	Paper	A1	499	Included	9	Watch	A1	306	Included
4	Table	A1	637	Included	10	Eat	A1	453	Included
5	Key	A1	712	Included	11	Drink	A1	720	Included
6	Clock	A1	836	Included	12	Clean	A1	813	Included

As shown in Table 5, the 12 target words were all within the 1,000 most frequent words and in the A1 scale in the CEFR.

In addition, the 12 target words were piloted with another group, homogeneous to the participating groups, to find out if any word was known to them and should be left out. The 12 words selected as target words were divided into three groups, as displayed in Table 5. Since the words had to be covered in each of the three songs, the target words were grouped according to how they appeared in the songs.

Table 6: The 12 target words divided into three groups

	GROUP I	GROUP II	GROUP III
	Clean	Table	Play
TARGET	Room	Clock	Eat
WORDS	Book	Paper	Drink
	Watch	Key	Talk

Note: Group I = 1st song, Group II = 2nd song, Group III = 3rd song

3.3.3 Selection of songs and construction of TPR commands

The songs were selected according to the following criteria. First, the songs had to include the target words, or the target words could be easily incorporated into lyrics of the selected songs. Shin's (2017) checklist for selecting songs was adopted to make sure the songs met linguistic and pedagogical criteria for young learners: Shin suggested that the song must be connected with the language and the content of the lesson. Also, it must be compatible with the learners' level of language proficiency. Moreover, the song should be attractive in melody and rhythm; yet, musically simple with repetitive rhythm and melody. Additionally, the lyrics should have some highly repetitive lines. Furthermore, it should be easy to adapt the songs to physical movements or dramatization. Finally, the song should be motivating and attractive to children so they easily can learn and master it.

In addition, the lyrics were analysed using "the online graded text editor" (ER-Central, 2016), where a filter using the CEFR A1 and A2 scales. The filter determines how many words are within the A1-A2 scale and how many are beyond it or non-listed. Once the criteria for selecting a song were met, the songs were revised to include all the target words as necessary. The procedure for teaching the target words using songs is outlined in Figure 4, as follows.
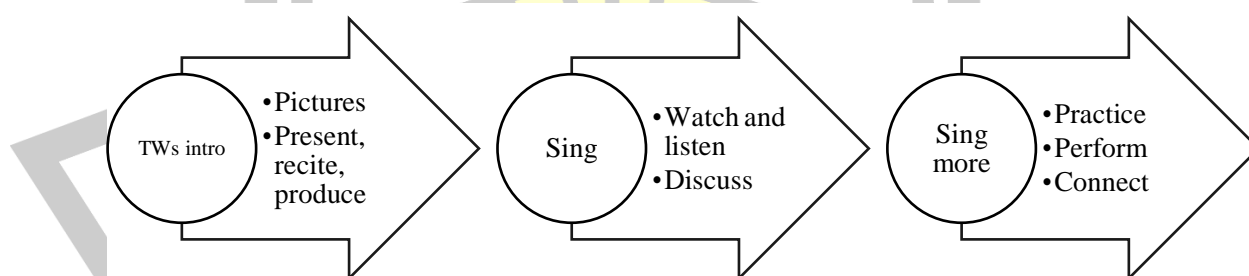

Figure 4: The procedure for teaching the target words with songs

The song group was exposed to one song for each topic. The songs were introduced by the use of a computer monitor with speakers. After that, the lyrics were taught implicitly

with a focus on the target words. The target words were illustrated by the selected images. In the following lesson, the target words were reviewed several times by singing the songs in various ways. Also, the pictures were used in each revision session. Although singing consisted of singing and related activities, almost exclusively, some clapping and sway movements were tolerated, for further details on the procedure for the implementation of songs (see Appendix C).

The TPR commands and utterances were constructed, so they contained the target words and simple sentences which extended the use of the target words. Moreover, hand motions were selected from online databases to match the target words. The criteria for the hand motions was that they had to be simple and easy for young children to learn. Also, each hand motions should be distinctly different from any other hand motion, so the participants were not misled by the hand motions. Finally, each motion was attached to a simple sentence that could easily be acted out, for instance, the sentence "I can clean my room" was performed by three different motions while saying the sentence. The three distinct steps for the implementation of TPR are outlined in Figure 5 as follows:
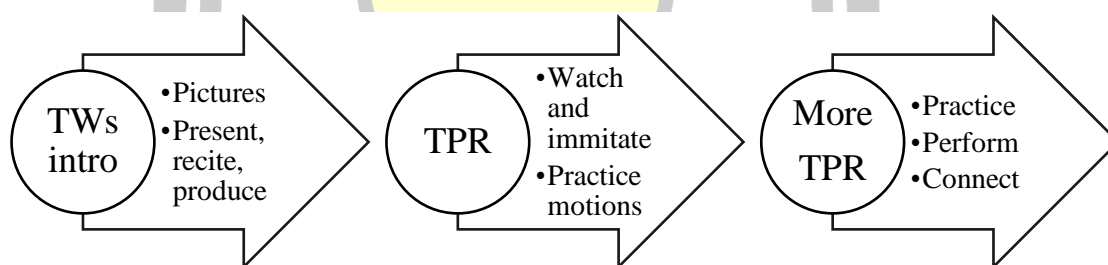
Figure 5: The procedure for teaching the target words with TPR

In addition to the songs and TPR, pictures play a significant role in instruction. Pictures are known to aid retention of vocabulary as the mind quickly makes connections to visual representations of objects. Several previous studies have reported on the advantages of applying pictures for teaching vocabulary (Griva, Kamaroudis, & Geladari, 2009; Rowe, Silverman, & Mullan, 2013; Swartzendruber, 2007). However, the aim of this investigation was not to compare the use of pictures with other teaching

methods. Instead, the pictures were applied as a technique to introduce the target words' form, meaning, and use. Also, the images were useful to give the participants a basic understanding of the target words. The pictures that were used to introduce the participants to the target words' form, meaning and use were selected carefully to make sure they represented the target words accurately.

Before the pictures were used with the participants, they were assessed by the researcher and two trainee teachers working in the preschool to ensure that the pictures were clearly representing the target words. Lastly, the pictures were piloted with a homogeneous group to the intervention groups. Any picture that appeared unclear was replaced with a better picture or removed.

A pilot study was conducted before applying the pretest to find the most appropriate target words, the imagery value of the pictures, and the test validity. The process of selecting the target words (TWs) follows four steps as follows, as displayed in Figure 6.
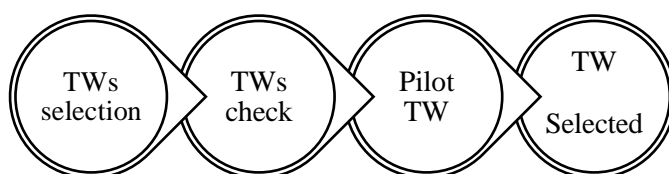
Figure 6: The procedure for the pilot study

In addition to the research instruments, the content of the instruction was outlined in three lesson plans. The topics were taught according to a lesson plan one topic for four days (see Appendix B for the lesson plan).

3.4 Data analysis

The quantitative data collected through the tests was statistically analyzed by using SPSS. The descriptive analysis showed the *t*-value, the *p*-value, and the *F*-value. Also, the effect size (d) of the *p*-value was calculated to demonstrate the size of the *p*-values as

follows: low (d=0.02), medium (d=0.5), and large (d=0.8). The paired sample *t*-test and the independent samples *t*-test were used to reveal any possible significant difference in the within-group measures and in the between-groups measure. Also, the repeated-measures ANOVA was used to reveal if there was any significant difference between the pretest, post-test, and delayed post-test.

The qualitative data collected by video recordings were analyzed by applying a thematic scheme. The themes were selected according to second language acquisition (SLA) theories such as the interactionist approach (Lightbown & Spada, 2006), the affective filter in Krashen's five hypotheses (Krashen, 1982), and Asher's (1977) TPR teaching methodology. Moreover, the analysis of the video recordings was validated by an expert in the field.

Finally, both qualitative and quantitative data were triangulated and analyzed in correspondence with an expert in the field.

3.5 Summary

In sum, this chapter outlines the participants' background and context, research instruments, research procedures, data collection procedures, and data analysis. Moreover, the criteria for selecting the target words are explained, and the procedures for each teaching method are clarified. Finally, an overview of the research procedure is provided in Figure 7.

1st wk Pilot study	2nd wk Pretest	3rd wk Intervention with quizz	4th wk Intervention with quizz

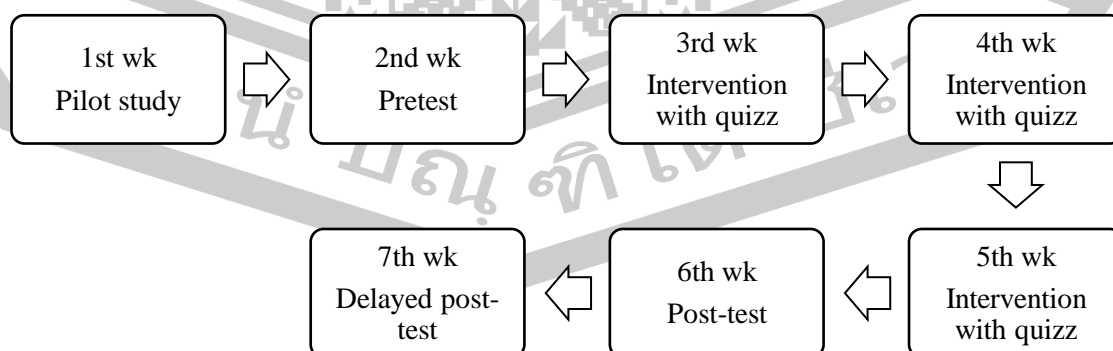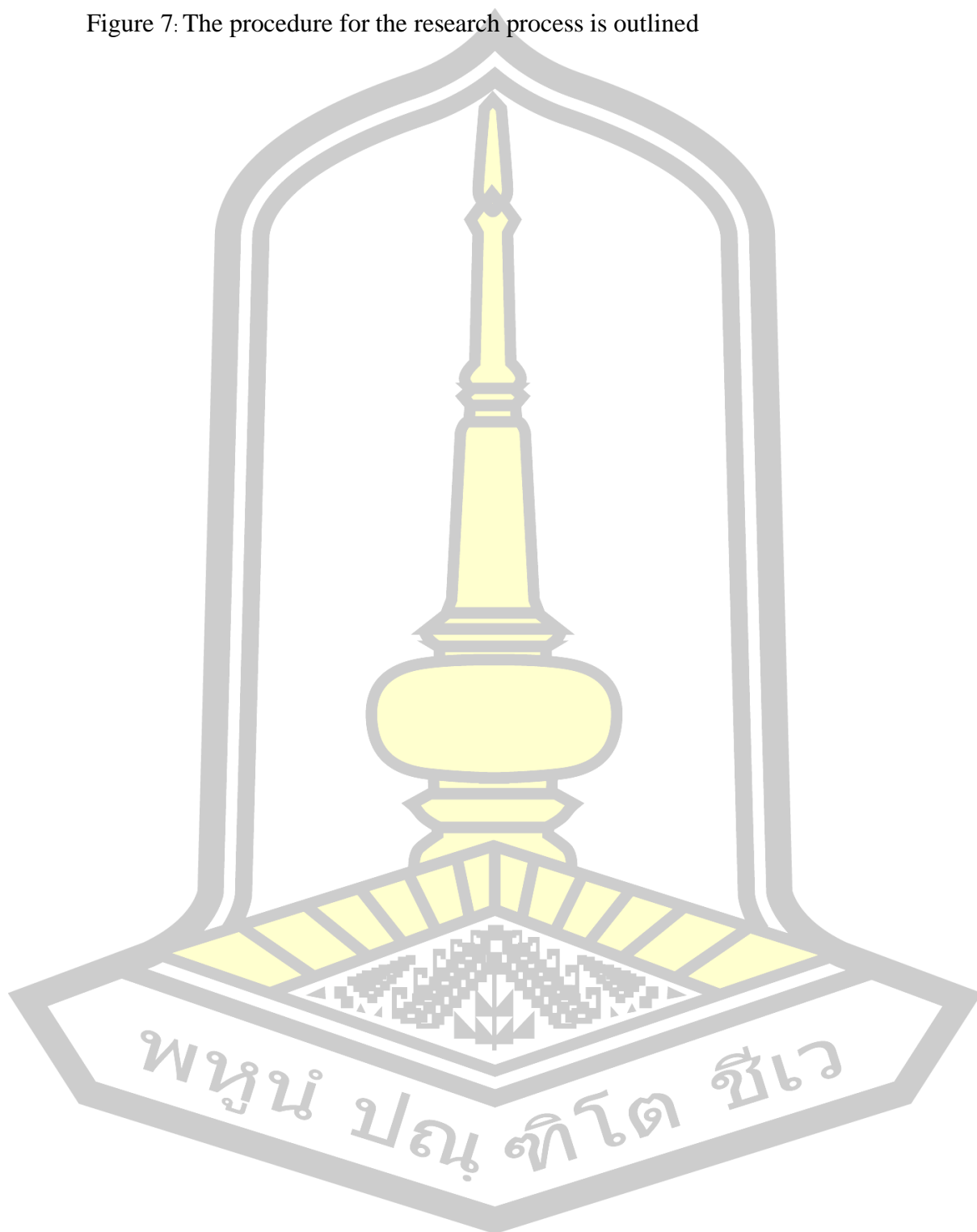| 7th wk Delayed post-test	6th wk Post-test	5th wk Intervention with quizz

Figure 7: The procedure for the research process is outlined

CHAPTER IV
RESULTS

This chapter reports on the results of the current study and answers the four research questions. The three quantitative research questions were addressed with data from the tests applied in the investigation. Moreover, the fourth research question was addressed with qualitative data.

There were 72 participants included in the current investigation. The number of participants in each group was not the same. There were 22 children in the TPR group, 22 in the song group, and 28 in the TPR and song group (hereafter TPR&S) group.

Moreover, the data was analysed using SPSS with the pair-samples *t*-test to find the *t*-value and the *p*-value. Also, the repeated-measures ANOVA was used to reveal if there was any significant difference between the pretest, post-test, and delayed post-test. Besides, the effect size was calculated to demonstrate the size of the *p*-values as follows: low (d=0.02), medium (d=0.5), and large (d=0.8). The raw score was converted into percentages on both the receptive and the productive test before doing the statistical analysis.

The score between the pretest and the post-test revealed how much the participants improved their receptive and productive vocabulary knowledge. Moreover, the score between the post-test and the delayed post-test brought out how well the participants retained the words after 14 days.

In sum, test results were used to answer the three quantitative research questions, and a coding scheme was used to answer the qualitative research question.

In the first section, the first research question is addressed by displaying the participants' receptive vocabulary knowledge during and after the intervention in one table and two figures.

4.1 Thai pre-schoolers' receptive vocabulary knowledge

The first research question: What are the effects of songs and TPR on participants' receptive vocabulary knowledge?

The effect of each teaching method TPR, song, and TPR&S on the participants' receptive vocabulary knowledge was investigated by using the paired samples *t*-test, as shown in Table 7, Figure 8, and Table 8.

Table 7: Descriptive statistics of Thai pre-schoolers' receptive vocabulary knowledge

Groups	Tests	n	Mean	SD
TPR	Pretest		59.091	22.110
	Post-test	22	96.591	11.689
	Delayed post-test		98.485	7.106
SONG	Pretest		56.818	24.075
	Post-test	22	90.530	15.494
	Delayed post-test		96.600	6.635
TPR&S	Pretest		64.881	23.390
	Post-test	28	97.321	5.580
	Delayed post-test		98.214	4.735

As Table 7 displays, the TPR group participants' mean score on the pretest was ($\bar{x}$=59.091) which was in between the other groups. The participants' score on the post-test was ($\bar{x}$=96.591), also in between the other groups. However, on the delayed post-test their mean score was the highest ($\bar{x}$=98.485). Getting the highest score on the delayed post-test, may indicate that the participants had the best retention of the words two weeks after the intervention.

Moreover, the singing group had the lowest mean score on the pretest ($\bar{x}$=56.818), the post-test ($\bar{x}$=90.530), and the delayed post-test ($\bar{x}$=96.600). The low score may indicate that the participants' receptive vocabulary knowledge was not so deep compared with the other groups.

Furthermore, the TPR&S group had the highest score on the pretest ($\bar{x}_1$=64.881) and on the post-test (α=97.321). However, on the delayed post-test their mean score ($\bar{x}_1$=98.214) was just below the TPR group participants' score.

To sum up Table 7, the substantial improvement in the mean score from the pretest to the post-test may indicate a significant difference which is illustrated in Figure 8 and displayed in Table 8.

The participants' receptive vocabulary knowledge progress is illustrated in a line-graph, as displayed in Figure 8.
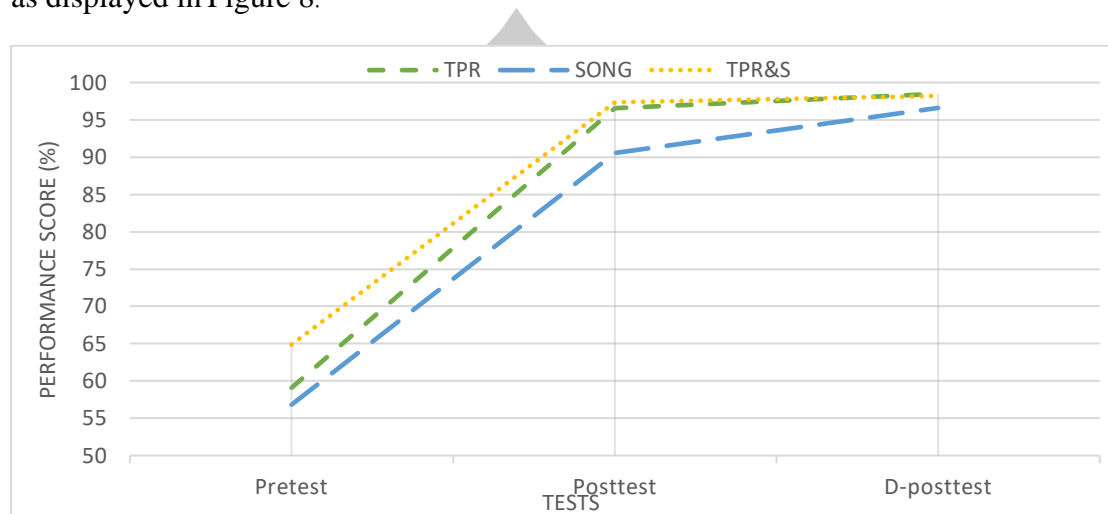
Figure 8: The participants' overall progress of the receptive vocabulary knowledge

As shown in Figure 8, the participants' receptive vocabulary knowledge of the target words increased significantly from the pretest to the post-test. Moreover, the retention of the target words somewhat increased from the post-test to the delayed post-test. The positive progress between the post-test and the delayed post-test in the line chart may reflect the wash-back effect. Using the same pictures in all three tests may have helped the participants in remember the images from the two previous tests. Therefore, they could easily choose the right image representing the word that was uttered by the researcher on the delayed post-test.

The paired-samples *t*-test was used, and the effect size calculated to clarify if the participants' progress between the tests was significantly different, as displayed in Table 8.

Table 8: The participants' progress between tests compared

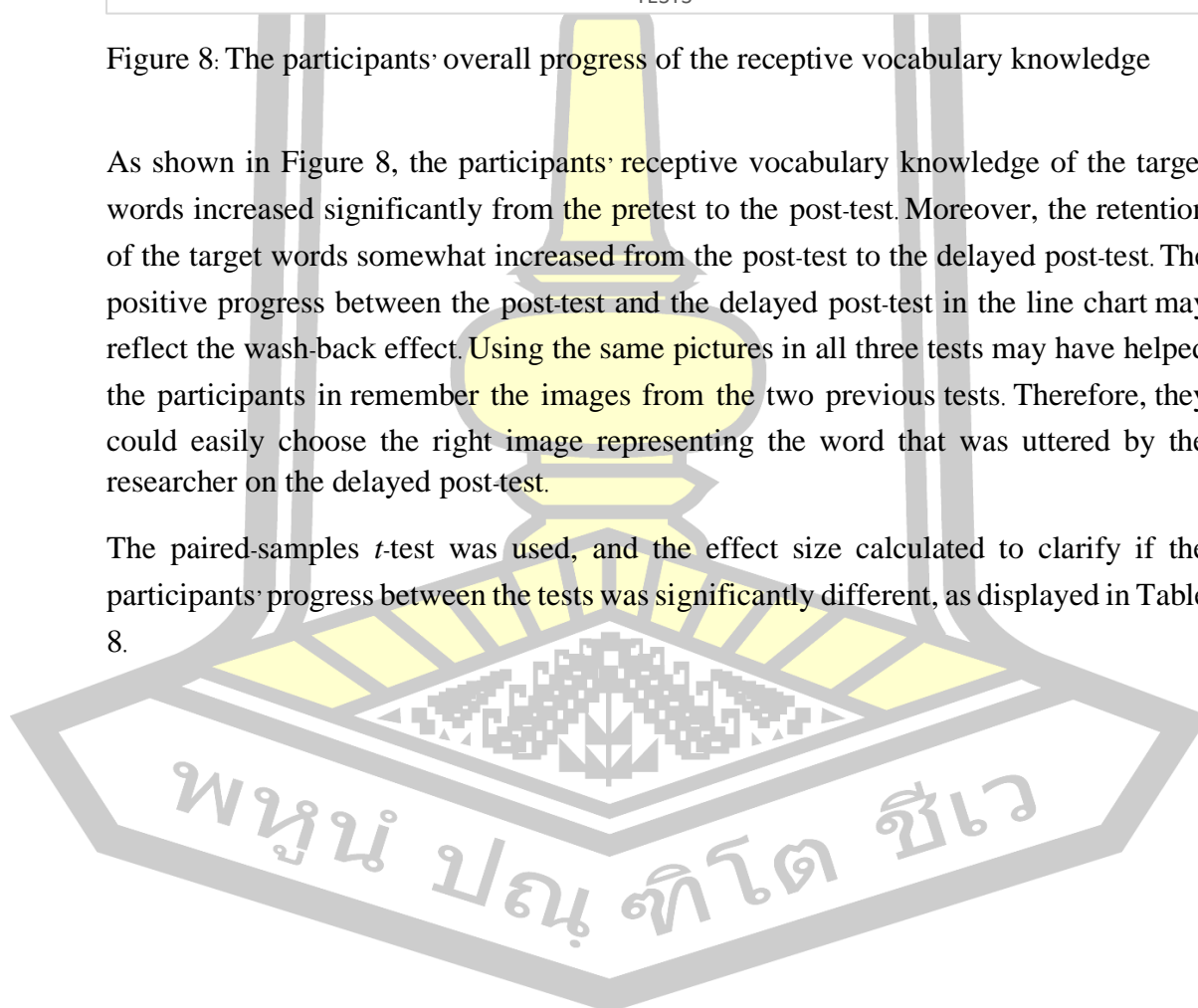| Groups	Tests compared	Diff	t-value	Effect size
TPR n=22	Pretest – Post-test[1]	37.500	7.429*	2.219
	Post-test - Delayed post-test[2]	1.900	1.418	0.202
	Pretest - Delayed post-test[3]	39.400	8.178*	2.697
SONG n=22	Pretest – Post-test[1]	33.710	5.446*	1.704
	Post-test - Delayed post-test[2]	6.070	2.752*	0.549
	Pretest - Delayed post-test[3]	39.780	7.524*	2.592
TPR&S n=28	Pretest – Post-test[1]	32.440	7.173*	2.240
	Post-test - Delayed post-test[2]	0.890	1.000	0.173
	Pretest - Delayed post-test[3]	33.330	7.626*	2.371

Note: * p-values are significant at α=0.05; [1] vocabulary learned [2] vocabularies retained for two weeks [3] overall learned and retained vocabulary

As Table 8 displays, the participants in the TPR group enhanced their receptive vocabulary knowledge significantly from the pretest to the post-test with a large effect-size (p=0.01, d=2.219). Also, their overall progress from the pretest to the delayed post-test was significant with a large effect-size (p=0.01, d=2.697). However, the score on the delayed post-test, measuring the retention of the target words, was not significantly different from the post-test (p=0.171, d=0.202).

Although the participants in the singing group had the lowest mean score on the pretest, they improved their receptive vocabulary knowledge significantly from the pretest to the post-test, with a large effect size (p=0.001, d=1.704). Additionally, they enhanced their score significantly from the post-test to the delayed post-test, with a medium effect size (p=0.01, d=0.55). Their retention of the target words was better than the other groups' (diff[2] – diff[3]=6.070). Furthermore, the overall progress from the pretest to the delayed post-test was significant, with a large effect size (p=0.01, d=2.592).

The participants in the TPR&S group scored highest on the pretest and the post-test. Like the other groups, they improved their receptive vocabulary knowledge significantly from the pretest to the post-test with a high effect-size (p=0.01, d=2.240). Additionally, their overall improvement from the post-test to the delayed post-test was significant, with a large effect size (p=0.01, d=2.371).

To sum up, Figure 8 and Table 8 display the participants, improvement of their receptive vocabulary knowledge of the target words significantly (p<0.05, F<0.05) with a large effect size (d>0.8). The results may indicate that the teaching methods implemented in the current experiment were effective to teach the target words. In the next section, the results of the productive vocabulary test are reported and explained.

4.2 Thai pre-schoolers, productive vocabulary knowledge

The second research question: What are the effects of songs and TPR on the participants, productive vocabulary knowledge?

The effect of each teaching method TPR, song, and TPR&S on the participants, productive vocabulary knowledge was investigated by using the paired samples t-test, as revealed in Table 9 and Table 10. Also, Figure 9 illustrates the participants, progress in a line-graph.
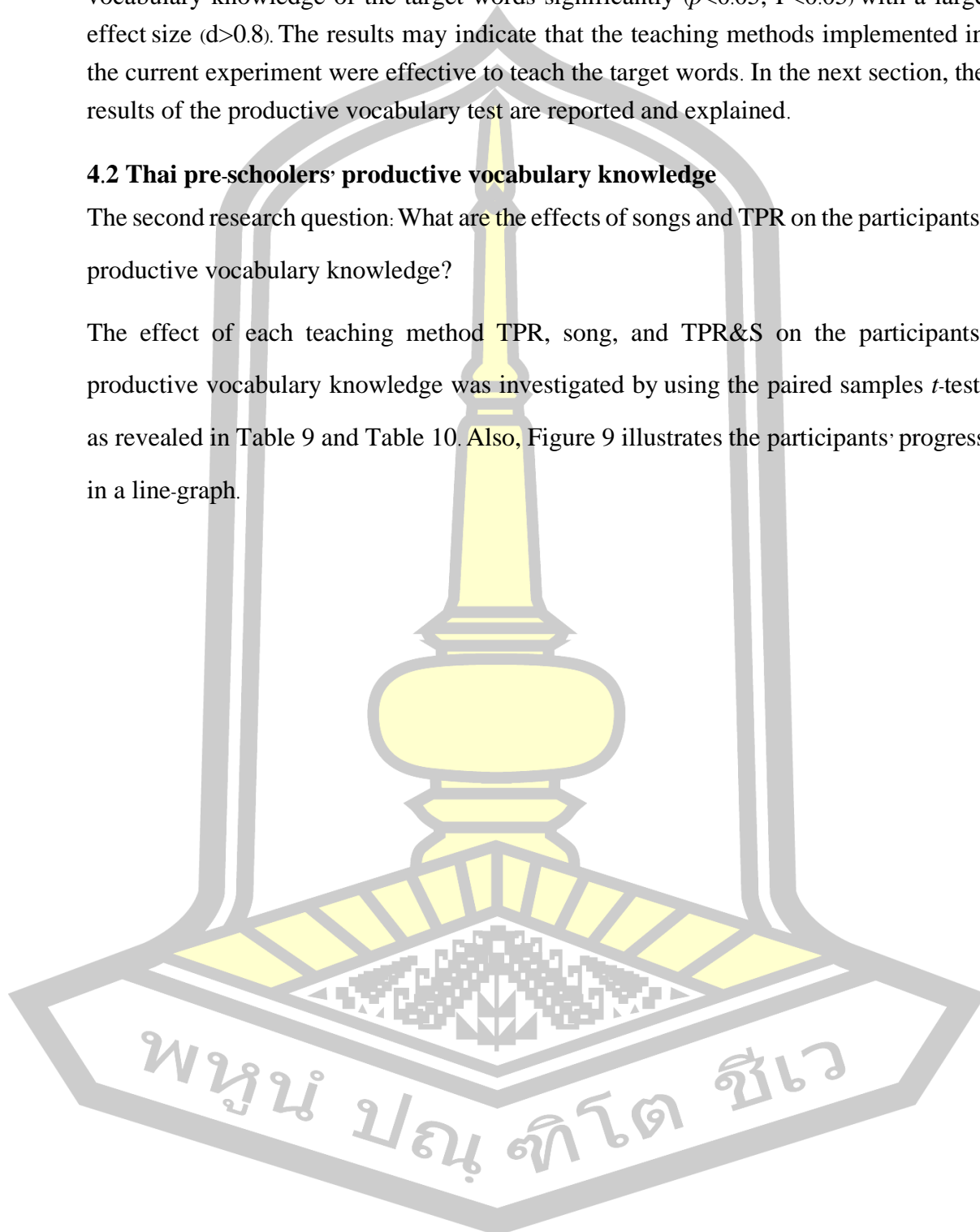
Table 9: Descriptive statistics of Thai pre-schoolers' productive vocabulary knowledge

Groups	Tests	n	Mean	SD
TPR	Pretest		27.364	14.561
	Post-test	22	44.034	14.061
	Delayed post-test		45.076	12.276
SONG	Pretest		24.614	7.126
	Post-test	22	50.895	23.170
	Delayed post-test		43.939	10.909
TPR&S	Pretest		23.809	4.957
	Post-test	28	51.563	17.729
	Delayed post-test		44.345	9.884

As displayed in Table 8, the participants in the TPR group had the highest mean score on the pretest ($\bar{x}$=27.364) and the delayed post-test ($\bar{x}$=45.076).

Moreover, the singing group participants' mean-score was between the other groups on the pretest ($\bar{x}$=24.614) and the post-test ($\bar{x}$=50.895). Their overall score was the lowest compared with the other groups ($\bar{x}$=43.939).

Furthermore, the participants in the TPR&S group had the lowest score on the pretest ($\bar{x}$=23.809) but the highest score on the post-test ($\bar{x}$=51.563).

In brief, the substantial improvement of the mean score from the pretest to the post-test may indicate a significant difference which is illustrated in Figure 9 and explained in Table 10. Also, the drop from the post-test to the delayed post-test may suggest that the participants' retention of the words decreased after two weeks.

To better illustrate the participants' overall progress of productive vocabulary knowledge from the pretest to the post-test and from the post-test to the delayed post-test the mean score in percentage is displayed in Figure 9.
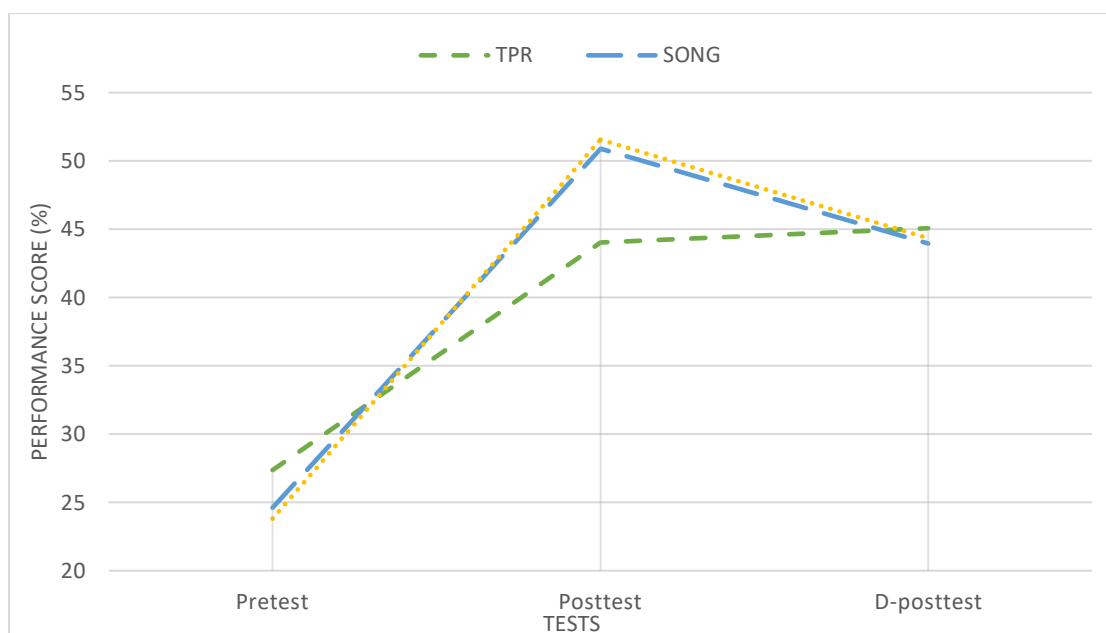
Figure 9: The participants' overall progress of the productive vocabulary knowledge

As illustrated in Figure 9, the participants' productive vocabulary knowledge of the target words increased significantly from the pretest to the post-test. Additionally, the retention of the target words somewhat decreased from the post-test to the delayed post-test except for the participants in the TPR group, which enhanced their retention. The decrease of the productive vocabulary knowledge of the target words in the singing group and the TPR&S group may reflect the forgetting curve, which implies that words which are not used or revised are forgotten.

To further investigate if the participants' progress between the tests was significantly different, the paired-samples t-test was used, and the effect size calculated, as displayed in Table 10.

Table 10: The participants' progress between the tests is displayed

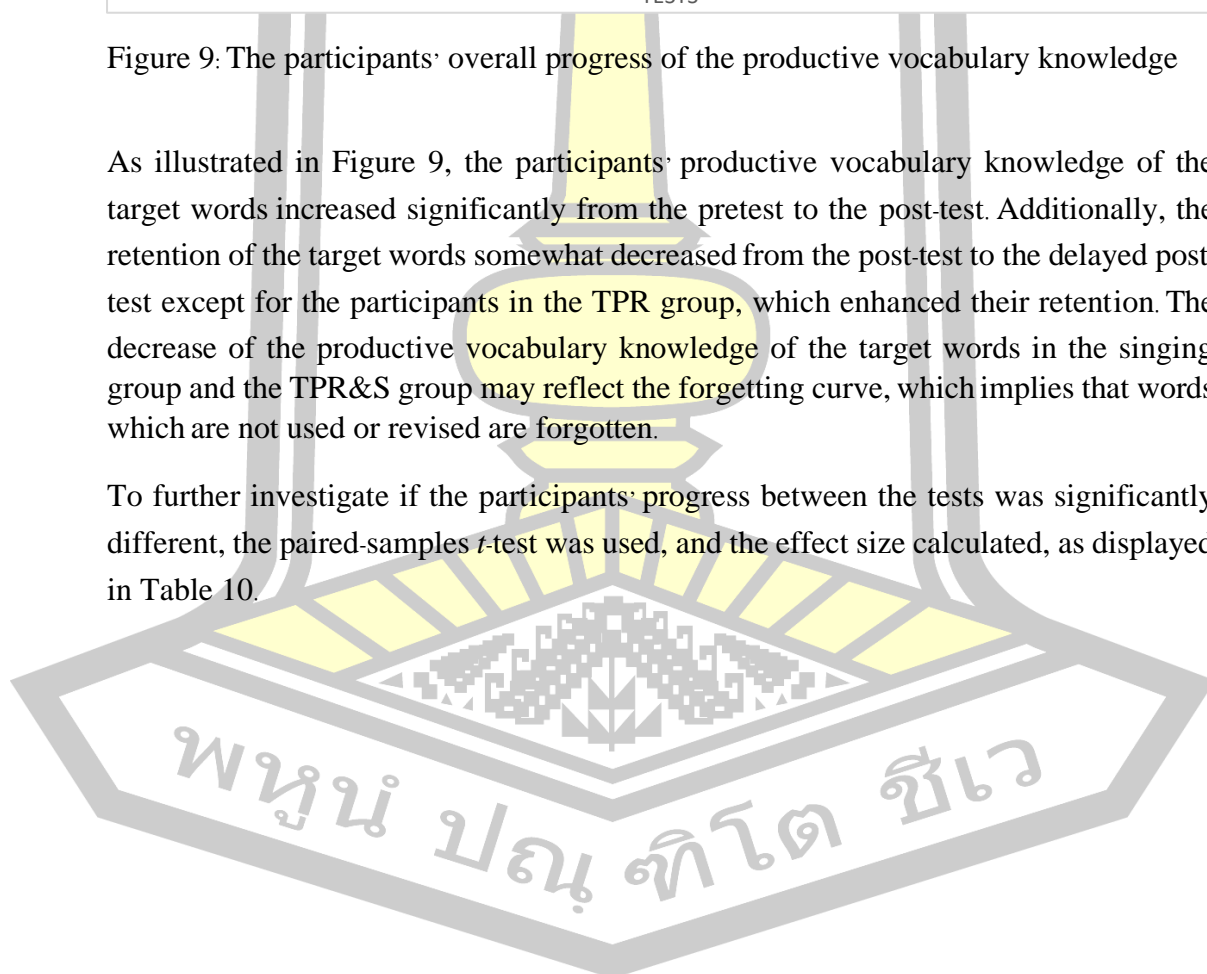| Groups	Tests compared	Diff	t-value	Effect size
TPR n=22	Pretest – Post-test[1]	16.670	10.592*	1.165
	Post-test–Delayed post-test[2]	1.042	0.556	0.079
	Pretest– Delayed post-test[3]	17.712	7.603*	1.320
SONG n=22	Pretest – Post-test[1]	26.282	5.856*	1.735
	Post-test – Delayed post-test[2]	-6.956	-2.113*	0.408
	Pretest – Delayed post-test[3]	19.326	8.207*	2.143
TPR&S n=28	Pretest – Post-test[1]	27.754	9.679*	2.447
	Post-test – Delayed post-test[2]	-7.217	2.739*	0.523
	Pretest – Delayed post-test[3]	20.536	11.182*	2.768

Note: * p values are significant at $\alpha < 0.05$ [1] vocabulary learned [2] vocabularies retained for two weeks [3] overall learned and retained vocabulary

As displayed in Table 10, the participants in the TPR group improved their productive vocabulary knowledge significantly from the pretest to the post-test with a large effect size (p=0.001, d=1.165). However, they increased their productive vocabulary knowledge less than the other groups' (diff[1] – diff[2]=16.670). Importantly, their retention of the words was excellent as they scored higher on the delayed post-test than on the post-test (diff[2] – diff[3] = 1.042).

Moreover, the participants in the singing group significantly increased their productive vocabulary knowledge of the target words from the pretest to the post-test with a large effect size (p=0.01, d=1.735). Additionally, their retention of the target words was substantially worse than on the post-test, with a medium effect size (p=0.05, d=-0.4).

Furthermore, the participants in the TPR&S group significantly improved their productive knowledge of the target words from the pretest to the post-test with a large effect size (p=0.01, d=2.447). Indeed, their improvement was more significant than the other groups (diff[1] – diff[2] = 27.754). Besides, their overall improvement from the pretest to the delayed post-test was higher than the other groups' (diff[1] – diff[3] = 20.536). However, their retention of the target words significantly decreased from the post-test to the delayed post-test with a medium effect-size (p=0.01, d=0.5).

In short, the participants in all three intervention groups improved their productive vocabulary knowledge of the target words from the pretest to the post-test significantly

with a large effect size. The results of the analysis may suggest that the teaching methods implemented in the study were effective to teach the target words for productive use.

In the next section, the third research question is addressed by comparing the tests between each intervention group. Also, the receptive vocabulary knowledge is compared with the productive vocabulary knowledge for each test.

4.3 Comparing between receptive and productive vocabulary knowledge of Thai

pre-schoolers

The third research question: Is there any difference between the teaching methods on

Thai pre-schoolers' vocabulary knowledge?

To find out if there was a significant difference between the participants productive and receptive vocabulary knowledge in each group, the one-way ANOVA was used, as displayed in Table 11.
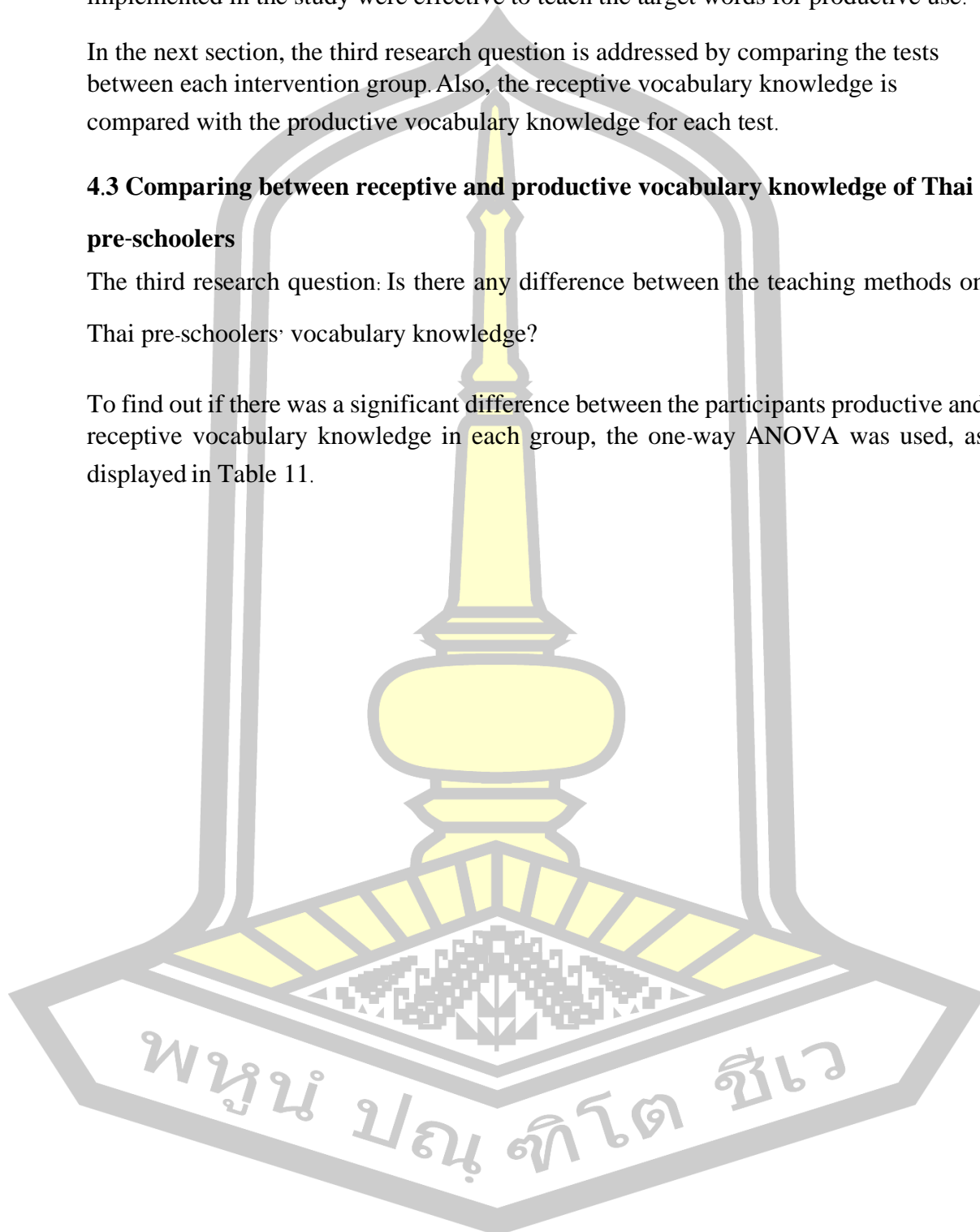
Table 11: Comparing participants' receptive and productive performances

			$\bar{x}$	SD	p-value	F-test
Pretest	TPR		59.090	22.109		
	Song	R	56.818	24.075	0.447	0.813
	TPR_S		64.881	23.390		
Post-test	TPR		96.590	11.689		
	Song	R	90.530	15.493	0.085	2.546
	TPR_S		97.321	5.580		
Delayed post-test	TPR		98.485	7.105		
	Song	R	96.595	6.634	0.537	0.626
	TPR_S		98.214	4.734		
Pretest	TPR		27.363	14.560		
	Song	P	24.613	7.126	0.404	0.917
	TPR_S		23.808	4.957		
Post-test	TPR		44.034	14.060		
	Song	P	50.895	23.169	0.319	1.161
	TPR_S		51.562	17.728		
Delayed post-test	TPR		45.075	12.275		
	Song	P	43.939	10.909	0.940	0.060
	TPR_S		44.345	9.883		

Note: R=receptive; P=productive; * p values are significant at α <0.05; TPR n=22, Song n=22, and TPR&S n=28

As illustrated in Table 11, the implementation of TPR, singing, and TPR&S had an equally large effect on the growth of the participants' receptive vocabulary knowledge on the post-test. The difference between the performance in every group was not significant (p=0.085, F=2.546). Nor was there any significant difference between the intervention groups on the delayed post-test (p=0.537, F=0.626). The results may imply that the teaching methods were equally effective to improve the participants' receptive vocabulary and to aid their retention of the words.

Likewise, there was no significant difference between the participants' productive vocabulary knowledge in every group on the post-test (p=0.319 F=1.161). Neither was there any significant difference between the intervention groups on the delayed post-test (p=0.940, F=0.060). The insignificant difference between the intervention groups on each test may suggest that the teaching methods were equally effective to enhance the participants' productive vocabulary knowledge of the target words.

The total mean score mirrors the participants' overall progress of acquiring receptive and productive vocabulary knowledge, as displayed in Figure 10.
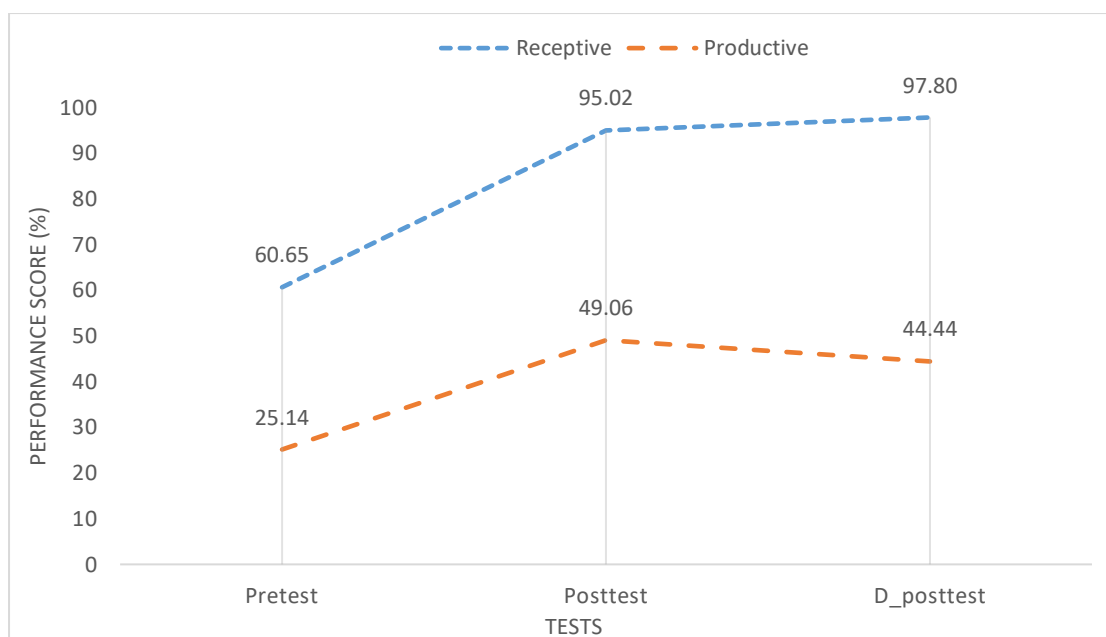
Figure 10: The overall progress of the participants' productive and receptive vocabulary learning

Figure 10 illustrates the overall difference between the participants' receptive vocabulary knowledge and their productive vocabulary knowledge was substantial. Also, the line-graph reflects that the participants' overall progress from the pretest to the post-test was significant for receptive and productive vocabulary knowledge. Moreover, the participants' retention of the words was somewhat better receptively compared with productively. Their improvement from the post-test to the delayed post-test may suggest that the participants' receptive vocabulary knowledge of the words was more in-depth compared with their productive vocabulary knowledge.

Moreover, the independent samples *t*-test was used to compare the participants' receptive vocabulary knowledge with their productive vocabulary knowledge. The data from the receptive and the productive tests were not equally distributed, so equal variance was not assumed. The results are displayed in Table 12.

Table 12: The receptive and productive vocabulary knowledge compared

Groups	Tests		Mean	SD	*t*-value	effect size
TPR n=22	Pretest	R	59.091	22.109	5.621*	1.730
		P	27.364	14.561		
	Post-test	R	96.591	11.689	13.482*	4.082
		P	44.034	14.061		
	Delayed post-test	R	98.485	7.106	17.662*	5.511
		P	45.076	12.276		
Song n=22	Pretest	R	56.818	24.075	6.016*	2.064
		P	24.614	7.126		
	Post-test	R	90.530	15.494	6.670*	2.050
		P	50.895	23.170		
	Delayed post-test	R	96.595	6.635	19.343*	6.003
		P	43.939	10.909		
TPR&S n=28	Pretest	R	64.881	23.390	9.090*	2.898
		P	23.809	4.957		
	Post-test	R	97.321	5.580	13.028*	3.926
		P	51.563	17.729		
	Delayed post-test	R	98.214	4.735	26.010*	7.370
		P	44.345	9.884		

Note: *p-value is significant at α=0.05, R= receptive, P= productive

As shown in Table 12, the participants' receptive knowledge of the words was significantly higher than their productive vocabulary knowledge in all groups and on all tests (p<0.05, with a large effect size d>0.8).

In conclusion, the quantitative data reveals a significant enhancement of the participants' receptive vocabulary knowledge (Table 7, Figure 8, and Table 8) and their productive vocabulary knowledge (Table 9, Figure 9, and Table 10) and good retention of the words.

However, there was no significant difference between the intervention groups, which may indicate that the teaching methods are equally effective to teach vocabulary to YLs (Table 11).

Moreover, there was a significant difference between the participants' receptive vocabulary knowledge and their productive vocabulary knowledge. The much higher scores on the receptive test may suggest a deeper receptive understanding of the words (Figure 10 and Table 12).

Additionally, the participants' improvement of receptive and productive vocabulary was relatively linear (Figure 10), which may suggest that both their receptive and productive vocabulary increased simultaneously.

Finally, the results suggest that the participants' receptive retention of the target words was better than the productive retention (Tables 8 & 10).

In the next section, the fourth research question is addressed with an analysis of the video recordings collected with hidden video cameras.

4.4 Thai preschoolers' behavioural impact on vocabulary learning

The fourth research question: Do the participants' reactions affect vocabulary learning?

In answering the fourth research question, qualitative data collected by video recordings were analysed using a coding scheme with pre-selected aspects. The video recordings were obtained through hidden cameras installed in each classroom, as Figure 1 in chapter III demonstrates.

A coding scheme consisting of pre-selected themes was used to observe the participants' reactions during the interventions to see how they would react to the different teaching methods. The selected themes were social interaction, physical activity, and emotional expressions, as displayed in Table 13, 14, and 15.

Table 13 shows the qualitative data obtained from the observations concerning social interactions across different teaching methods during the experiment. The observations revealed that several interactions, including teacher-student and student-student, are occurring in the classroom. Social interactions were illustrated in Table 12, with some key points highlighted in italics.

Table 13: Analysis of the participants' social interaction

Theme	TPR	Song	TPR&S
Social interaction	TPR facilitated rich social interaction such as negotiation for meaning between peers and between the instructor and the participants. For example, when the target words were introduced, the instructor asked the participants about the	The song method also stimulated social interaction as singing *encouraged all the participants to sing and learn the target words together as a group.* After introducing the song, the participants started	The TPR&S method encouraged social interaction, as well. The participants learned the songs like the singing group and the TPR motions like the TPR group. Later, when the participants were practising making the hand motions, they

Theme	TPR	Song	TPR&S
	word's meaning in Thai. Most of them were *keen to raise their hand so they could answer the question.* Also, when the instructor demonstrated the hand motions, the *participants eagerly tried to imitate him.* Later, most of *the participants could verbally and physically express the target words.* Specifically, the *hand motions allowed those who hesitated to speak to take part in the interaction as well.* Sometimes the participants were not sure how to make the motions, so *they looked at their friends or the teacher for clues.* However, some participants appeared passive and *passively watched their peers interact and have fun; yet, they remained silent or played with their hands.*	singing the song with the instructor. After a few rounds of singing, *the participants wanted to sing the song with the teacher in front of the class.* When two of them were in front of the class, the *participants interacted with the instructor as he gave them instructions* on how to sing. When they were not sure what image to aim at, *they looked at their friends who helped them to locate the correct image. The interaction between the participants and the teacher helped them to produce the target words multiple times.*	*interacted with their friends by demonstrating how to they could make the motions to their peers.* Combining the two methods seemed to *stimulate social interaction* in a slightly different fashion than in the other groups. Especially when two participants were co-leading the singing with the instructor, their *expressions appeared more vibrant than in the other groups as they both sang and moved.* *As the participants learned the song and the motions, they interacted with the teacher and their peers.* Later, when they had mastered the hand motions, *they enjoyed showing the hand motions to their teacher and their peers.* Mixing the hand motions with songs was somewhat challenging to some participants, but it also *provided them with more opportunities to interact with their friends or teacher.*

Table 13 shows the qualitative data obtained from the observations concerning physical activity across different teaching methods during the experiment. The observations revealed that several interactions, including teacher-student and student-student, occurred in the classroom. The participants' physical activities are illustrated in Table 14, and some key activities are highlighted in italics.
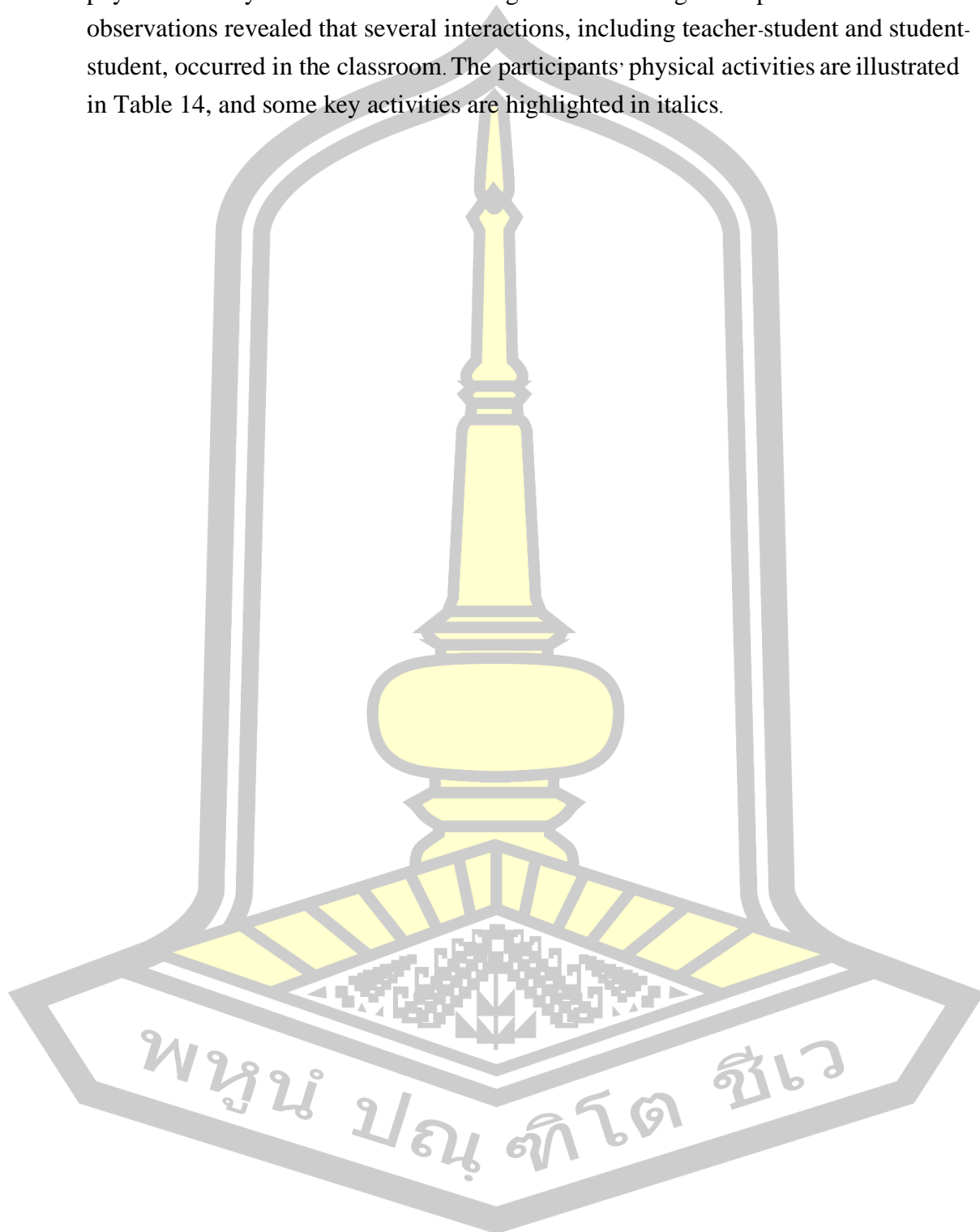
Table 14: Analysis of the participants' physical activity

Theme	TPR	Song	TPR&S
Physical activity	The TPR method *encouraged plenty of physical movement.* When the instructor demonstrated the hand motions, the *participants keenly tried to imitate him.* Some of the hand motions were slightly difficult for them to learn; however, they *seemed to enjoy trying to get the hand motions right, even after several failed attempts.* In a revision activity, they *competed to make the hand motions* as soon as they hear the word spoken by the instructor. Although many positive reactions were observed, the physical movement sometimes *distracted the participants. They got so occupied with making the motions that they paid less attention to the target words.*	Although singing does not require any physical movement, the *instructor encouraged the participants to clap out the rhythm and stand up while singing.* Split into two teams, they *stood up and sang in turns.* Taking turns to sing, *keet the participants on their toes and allowed them to move.* Also, standing up from time to time helps break the rather long periods of sitting, which can be tiring to young children. The participants in the *song group moved much less than the two other groups;* yet, *clapping the rhythm while stood up seemed to satisfy the participants' need for moving.* Besides, *less movement appeared to allow for more focus on the language.*	The TPR&S method also *encouraged much physical movement.* First, the participants learned the song. Then, they learned the hand motions. After that, *they sang the song while making the hand motions.* When singing the songs, the participants *stood up so they could move more freely and make the hand motions.* Also, the participants *competed who could make the hand motions fastest.*

Table 14 shows the qualitative data obtained from the observations concerning emotional expressions across different teaching methods during the experiment. The observations revealed that several interactions, including teacher-student and student-student, were occurring in the classroom. Emotional expressions are illustrated in Table 15 and some key expression highlighted in italics.

Table 15: The analysis of the participants' emotional expressions

Theme	TPR	Song	TPR&S
Emotional expressions	The TPR intervention allowed for plenty of emotional expressions. For example, *the participants were keen to participate in the activities arranged in front of the class. They enjoyed to move and to be in front of their peers.* Also, the competitive activities seemed to bring out many expressions. *When they competed, they were excited and eager to win.* Moreover, *those who were sat down cheered their friends who were competing.* In some of the activities, they got a score for their performance. At the end of the period, the final score was announced and a winner found.	Singing also allowed for emotional expressions. Those who join in the activities in front of the class expressed *excitement and happily contributed by their singing.* Moreover, the participants who remained seated *were eager to come forward to sing* and kept raising their hand to *let the teacher know their intention* to participate On the other hand, some participants appeared *nervous to be in front of the class,* but after some practice, they gained more confidence. After several repetitions, many *expressed some kind of disinterest in singing the songs.* Singing an old song	The TPR&S participants *looked like they were having fun and found the activities interesting.* They seemed to *enjoy the combination of both singing and making the hand motions* and mixing the two *methods allowed for both physical and musical expressions to come out.* Similar to the other groups, the participants *seemed eager to participate in the activities in front* of the class. Some were *confident and expressive;* others were more *refined in appearance and less active.* However, everyone *seemed to be having fun while trying out what they have learned.* The *combination of songs and hand motions seemed to be*

Theme	TPR	Song	TPR&S
	Winning the game was always expressed with joy.	with some expressive body motions *helped the participants to get some of their energy out* and *recover their interest in the target song.*	*very satisfying to the participants.*
		Additionally, when watching the song's video, *they looked very focused.*	

In sum, the analyses of the video recordings displayed in Table 13, Table 14, and Table 15 reveal that different implementations lead to various interactions between student-student and teacher-student.

Moreover, the TPR implementation apparently facilitated more physical movement compared with the singing group. The physical activity enabled the participants to learn the target words while expressing themselves with physical movement. Moreover, the physical movement helped the participants to relax, which may have led to more social interaction. Indeed, the interaction between the participants and the instructor appeared lively and engaging.

In addition, singing stimulates social interaction as singing is a shared activity that can be repeated many times. Songs can be sung in smaller or larger groups. The participants expressed excitement and enjoyment when singing the songs; especially, those who were called to lead the singing. Significantly, the atmosphere in a room full of singing young children is lively and relaxed, which helps the participants to enjoy learning the target words while singing. However, sometimes the participants seemed bored with repeating the songs multiple times.

Furthermore, TPR and songs (TPR&S) allowed the participants to move while singing. The observations revealed that the participants interacted with each other as they were learning the hand motions and singing the songs. They were keen to show their peers what they could do with their hands. Also, they expressed excitement to sing the songs. Indeed, the participants in the TPR&S group appeared relaxed and seemed to enjoy the activities. Notably, the mix of songs and TPR facilitated productive social interaction, plenty of physical movement, and positive feelings.

In conclusion, the results revealed that TPR and songs teaching methods were useful to enhance the participants' receptive and productive vocabulary knowledge. Also, the analysis of the quantitative data and qualitative data suggest that TPR&S intervention reaped slightly better results compared with the other groups.

The results presented in this chapter are discussed with previous studies and related literature in the following chapter.
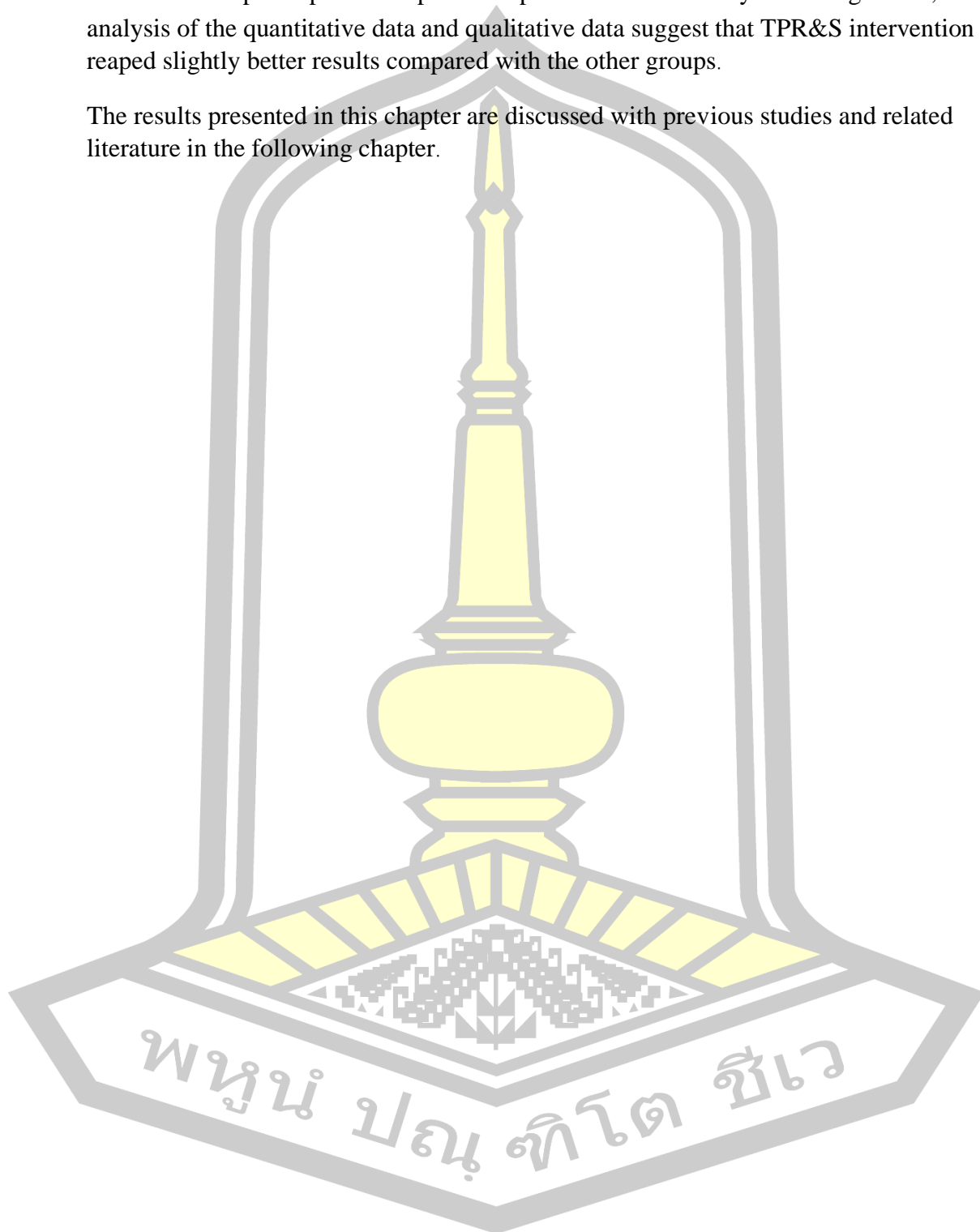
CHAPTER V
DISCUSSION AND CONCLUSION

In this chapter, the results from the current study are discussed and compared with related literature and previous findings. Also, some implications from the current study are suggested. Finally, a summary of the investigation and some suggestions for future studies are provided.

The study aimed to investigate the effects of TPR and songs on young learners' receptive and productive vocabulary learning. The results indicate that the participants' receptive and productive vocabulary acquisition of the 12 target words within groups improved significantly. However, the between-group difference was not statistically significantly different. The implications of TPR and singing are discussed and how the methods may have enhanced vocabulary acquisition.

Moreover, the underlying theoretical framework for the discussion is based on various assumptions in SLA such as Asher's (1977) TPR method, and Nation's (2013) vocabulary continuum from receptive to productive vocabulary knowledge which is essential to understand the development of vocabulary knowledge.

Besides, a closer look at the implementations of every teaching method in the current experiment helps to understand how each intervention facilitated receptive and productive vocabulary acquisition. Moreover, the researcher aimed to present how the participants' reactions to the teaching methods could have impacted the participants' vocabulary acquisition. Finally, the video recordings reveal behavioural differences in each intervention group that may be helpful to deepen our understanding of what reactions may impact young learners' vocabulary learning.

5.1 The effect of teaching methods on young learners' receptive vocabulary knowledge

The analysis of the current findings revealed that the selected teaching methods had a positive effect on receptive vocabulary knowledge among young learners in Thai pre-school contexts. Even though the results did not show any statically significant difference between groups, the TPR&S method appears to have a higher impact on the participants' receptive vocabulary knowledge, followed by TPR and finally, songs. These findings are consistent with and support the results in previous studies which indicated that TPR and songs are effective to enhance young learner's receptive vocabulary knowledge (Asher, 1966; Asher 1977; Bernal Suancha, 2013; Naeini & Shahrokhi, 2015; Nation&Hees, 2017; Nuraeni, 2019).

The positive effect of TPR and songs on Thai pre-schoolers' receptive vocabulary knowledge could be explained by the concept of second language acquisition (SLA). From the behaviourist perspectives, younger learners may recognize the word they heard or produced by their teacher. In this regard, new words could be learned through mimicry and imitation. From interactionist perspectives, classroom interactions between students and a teacher or students and students also influence the learning ability of children.

The incorporation of physical movement in language learning has a longstanding recognition in SLA as it has proved to be an effective teaching method to teach beginners and young learners' receptive language skills. Specifically, TPR promotes physical movement alongside learning the target language, which has a positive impact on the retention of new vocabulary. Importantly, physical movement is believed to activate the right hemisphere of the brain, which aids the retention of newly learned words.

Moreover, physical movement supports social interaction in the classroom, which was evident in the experiment. The participants were eager to imitate the hand motions, and the target words as the instructor demonstrated them. As they explored the hand motions, they interacted with their peers in various ways. For example, they showed the hand motions to a friend who in return, showed a different hand motion back. Such student-student interaction positively impacted the participants' vocabulary acquisition.

The student-student interaction is considered a positive contribution in SLA as meaningful interaction regarding the target words helps learners to connect the receptive meaning of the words with previous knowledge. Connecting new knowledge with prior knowledge is an essential strategy for receptive language acquisition.

Additionally, TPR is believed to lower language-related anxiety levels (Krashen, 1984). As such, the current investigation revealed that the participants appeared relaxed and focused as they learned new words while anticipating to learn the hand motions. Also, they seemed to enjoy practising the actions with their friends.

For example, the hand motion for the word clock required them to use both hands simultaneously, which for some was challenging to learn. However, as they practised and got better, they showed their accomplishments to their peers and their teacher. Such achievements, should not be overlooked as they may give young learners' a sense of control and satisfaction, which is vital in L2 learning; especially in EFL contexts. Simultaneously, they heard the word "clock" spoken many times by the instructor and their peers, which stimulated acquisition as multiple encounters with a word leads to word acquisition. Moreover, engaging with target words in L2 in such ways is likely to lead to conscious or subconscious word acquisition. Therefore, TPR was found to

facilitate some important language-related aspects that positively impacted the participants' receptive vocabulary acquisition.

Singing is also recognized as an effective teaching method for young learners, as songs are frequently used all over the world in young learners' classrooms (Millington, 2011). Singing involves listening to authentic language with repeated phrases and words. Also, songs allow for varied use of the target words, such as, singing in harmony, practising rhythm and rhyme, and singing just for the fun of it (Shin, 2017).

Learning a new song naturally involves listening to the song's tune and its lyrics. Thus, the target song was played on a monitor to expose the participants to the melody and the lyrics. It did not take long until the participants started to mimic some parts of the song. Such behaviouristic characters are considered natural and positive, when not forced on learners.

In addition, when they listened to the song, they swayed and clapped to the rhythm of the song. Although they were not encouraged or taught any physical movement corresponding with the songs, the natural response for them was to clap and sway.

Also, activities, such as singing in groups proved useful for revising the target words, without boring them. Specifically, when taking turns to sing the song in two groups, each group tried to sing louder than the other group. Sometimes it was so loud that the instructor had to quiet them down. Simply put, the participants enjoyed the kind of competitive singing and seemed to have fun with the activity.

Singing can, therefore, be considered an interactive and relaxed way of learning languages which gives learners the chance to practice listening and speaking simultaneously. Indeed, as noted by Shin (2017), singing exposes the learners to authentic language, which facilitates real-life listening and speaking.

Thirdly, blending TPR motions with songs has previously proved to be very useful with young learners as the TPR&S method facilitates more senses to be involved while learning (Bernal Suancha, 2013, Ragdale, 2017, Uthaya Kumar & Sandaran, 2018).

Although the TPR&S is not officially recognized as a teaching method, it is widely used in language classrooms as the two methods mix very well. Traditionally, singing and dancing at the same time has been widely used for entertainment and education purposes. In the current study, TPR&S as a teaching method facilitated both physical movement and singing activities. It was observed that merging both methods resulted in mores senses being activated during learning which enhanced receptive vocabulary acquisition

Even though it was more demanding for the participants to engage in both singing and TPR, they expressed high levels of satisfaction throughout the intervention. For

instance, when two participants were in front of the class and performed the song with the motions, their peers eagerly imitated them and tried to outperform the two in front. In other words, the participants were deeply engaged in the singing activity. Such multi-sensory and deeply engaging activities are most likely to contribute to the participants' receptive vocabulary acquisition.

Even if some of them struggled to keep up with both singing and making the hand motions, it did not seem to overwhelm them. Instead, they looked passionate while trying to master the skills with their peers. Hence, it can be argued that the eclectic approach was the most satisfying way of enhancing young learners' receptive vocabulary. Indeed, a mix of several teaching methods is often preferred in order to meet the students' need and stimulate multi-faceted learning Spiro (2013).

Furthermore, the qualitative data also indicated that the participants acquired new words because they were interacting, physically active, and emotionally satisfied. The following excerpts can support the arguments developed from the quantitative data, as follows:

When the instructor demonstrated the TPR motions, the participants wanted to interact, as follows:

"*the participants eagerly tried to imitate the instructor.*"

After listening to the song a few times, the participants wanted to sing, as follows:

"*the participants wanted to sing the song with the teacher in front of the class.*"

Moreover, in the TPR&S group, the two participants who were in front of the class expressed great interest in the activity, as follows:

"*The participants appeared more vibrant than the participants in the other groups as they sang and moved simultaneously.*"

In sum, although the statistical analysis did not reveal any significant difference between the groups, the results argue slightly in favour of the TPR&S blended approach as the TPR&S method facilitate the best of the two methods so the participants could both hear the target words frequently, notice and recall them in meaningful ways. Hence, it appeared to be the most effective method to teach young learners vocabulary and facilitate their receptive vocabulary acquisition.

5.2 The effect of teaching methods on young learners' productive vocabulary knowledge

The analysis of the current findings revealed that the selected teaching methods, likewise, had a positive effect on productive vocabulary knowledge among young learners in Thai pre-school contexts. Even though the results did not reveal any statically

significant difference between groups, the effect-size indicates that the TPR&S method may have had a higher impact on the participants' productive vocabulary knowledge, followed by songs and TPR. These findings are consistent with previous studies (Asher, 1966; Swain, 2000; Castro Huertas & Navarro Parra, 2014; Davis & Fan, 2016; Chou, 2014; Nation&Hees, 2017).

The current findings could be explained in various ways. First, the inclusion of physical movement in language learning has a longstanding recognition in SLA as TPR has proved to be an effective method to teach beginners and YLs productive language skills. Specifically, TPR promotes physical movement alongside learning the target language. Also, it has been recognized for its positive impact on learning new words and retaining them. A critical contribution of TPR to language learning is the activation of the right hemisphere, which is believed to aid the retention of newly learned words. Most other teaching methods solely activate the analytical left hemisphere of the brain.

Moreover, physical movement supports social interaction in the classroom, which was evident in the experiment. As the participants explored the hand motions, they also interacted with their peers in various ways. When prompted to say the words while making the motions, they showed the hand motion and tried to utter the target words.

The participants' development of productive vocabulary knowledge varied. Some participants developed their productive vocabulary skills quickly and acquired the words so they could use them in retrieval activities and

Although some participants hesitated to produce the target words verbally, they could express themselves by making the hand motions. Hence, TPR was useful for the participants to express themselves, even without words. In an EFL context, this can be significantly helpful as more young learners are being exposed to English in public education systems. However, it might take a long time for young children to reach levels of confidence where they can express themselves verbally. Nonetheless, with some precise hand or body motions, they can express some meaning in classroom activities. Thus, it could be suggested to teach hand motions simultaneously with new words.

Singing also supported productive vocabulary acquisition of the target words. Learning to sing a song naturally involves verbal expressions by singing. After having listened to the song a few times, some of the participants started to sing the songs even before they knew the song very well. The participants' natural desire to sing may mirror the natural effect on productive vocabulary acquisition by singing songs. Few other language activities stimulate learners' productive use in such ways. Hence, it can be proposed that singing promotes productive vocabulary use in a more natural and relaxed way than other methods. Such findings may explain why the singing group had a higher effect size than the TPR group on the productive test.

Although the participants appear to sing, one should not take for granted that they are really singing as they might only be mimicking what they hear. A closer look at what they were singing revealed that they are not producing the words but rather mimicking or lip-speaking what they heard the teacher sing. Such attempts to participate are considered natural as young learners naturally mimic adults' speech. However, teachers should find ways to ensure that students can produce words accurately.

Hence, some implicit teaching of the target words may be necessary to draw the participants' deliberate attention to the target words. Using implicit vocabulary teaching strategies with young learners was found useful in the current study and is in line with previous findings that singing in itself is not sufficient for learning a language. Instead, some implicit teaching is needed along with other language activities Castro Huertas & Navarro Parra, (2014).

Specifically, in the current study, implicit teaching of the target words was used in almost all teaching periods. The words were displayed using images and pronounced clearly to make sure the participants were exposed to the right sounds of the target words. For some participants, the revision of the target words and repeating the words many times allowed for multiple encounters with the target words and noticing the words implicitly.

Thirdly, mixing songs with TPR movements seemed to reap the benefits of both methods as the TPR&S group's score resulted in the highest effect-size. Specifically, the TPR&S method allows for both physical and song activities to be applied simultaneously. With similar activities to the ones in the TPR group and the singing group, the participants seemed keen to practice saying the word and using them in the songs. Hence, it can be argued that the eclectic approach was the most effective way of enhancing young learners' productive vocabulary as it facilitated multiple encounters with the target words, deliberate attention to them, and meaningful use of the target words. Notably, the participants in the TPR&S group appeared to enjoy themselves while learning with high levels of social interaction, much physical activity, and low-anxiety levels.

In sum, the arguments for using TPR and songs in young learners' classrooms are strong in specific ways. The combination of both methods seems to have the most positive implications and may even provide teachers with an excellent alternative approach. Although there was no statistically significant difference between the groups, the analysis of the results may suggest that TPR&S is slightly more effective for teaching vocabulary to young learners and aid their productive vocabulary acquisition of the words.

5.3 Comparing receptive and productive vocabulary learning

The analysis of the findings reveals a statistically significant difference between the participants' receptive and productive vocabulary knowledge. The results are in line with previous findings which compared receptive and productive vocabulary development (Schmitt, 2010; Nation, 2013; Sukying 2017; Nontasee, 2020)

Overall, the participants' level of receptive vocabulary acquisition was higher compared with their level of productive vocabulary acquisition. The difference between the two reflects the receptive-productive continuum on which receptive vocabulary knowledge generally develops earlier and faster, while productive vocabulary knowledge often develops later and more slowly (Nation, 2013). Moreover, as the participants' acquired the target words receptively, productive vocabulary acquisition was more likely to occur. The progressive development of receptive and productive vocabulary knowledge in the current study can be accounted for by various factors.

First, in the TPR group, some participants expressed receptive knowledge of some of the words early on. When the instructor uttered one of the words, they were able to respond to the word they heard. Only later on, were they able to say the word at the same time with making the hand motion. Their early receptive response could reflect that some words were available in their receptive vocabulary repertoire, but were not yet developed in their productive repertoire. A few days later, after many repetitions through various TPR activities, the participants began to say the word. Hence, it can be inferred that implicit teaching, plenty of exposure, and frequent recall of the target words stimulated the productive use of words.

Secondly, in the singing group, it was slightly more challenging to explore to what degree their receptive vocabulary knowledge was developed during classroom activities. However, in an activity where they were required to point out the corresponding picture for the words uttered by the instructor, they had to draw on their receptive vocabulary knowledge to point out the right image. As their receptive vocabulary acquisition gradually developed, they were able to point out the image while singing the song, which, to some degree, reflects receptive and productive vocabulary knowledge.

Finally, in the TPR&S group, the participants were able to express their receptive vocabulary knowledge by making the hand motions or pointing out the corresponding pictures. Their productive vocabulary knowledge was expressed as they sang the songs and made the hand motions. Meanwhile, they were prompted to say the words. Hence, it can be argued that the TPR&S method naturally facilitated both receptive and productive vocabulary acquisition as the mix of activities encouraged more varied use of both receptive and productive vocabulary knowledge.

In sum, the difference between the participants' receptive and productive vocabulary acquisition is accounted for by mainly two factors. First, receptive vocabulary acquisition develops earlier and faster. Secondly, the cognitive level for acquiring the receptive knowledge of the words is lower compared with productive vocabulary acquisition.

5.4 How participants responded to songs and TPR

The analysis of the qualitative data revealed that the participants' reactions to the interventions helped their vocabulary acquisition. Theories in SLA, such as the interactionist perspective, Krashen's (1984) affective filter, and Swain's (2000) output hypothesis point to the importance of learners' behaviour and interaction in the classroom and how such factors impact vocabulary acquisition. Factors, including, social interaction, physical activity, and positive emotional expressions contribute positively to language acquisition. The results in the current study were similar to previous findings in that physical movement, and singing have previously led to positive responses in young learners (Asher, 1966; Slobin, 1973; Krashen, 1984; Castro Huertas & Navarro Parra, 2014; Nation&Hees, 2017; Shin, 2017)

The different reactions to the teaching methods in each group can be explained in various ways. First, TPR facilitates movement in the classroom, which is contrary to most traditional approaches where learners are mainly sat by their desk working on the subject matter. In contrast, when students are up on their feet and can freely move around, they are likely to communicate more with each other and their teacher. Through engaging TPR activities, the participants are most likely to interact with each other or with their teacher about the target words. In the current study, TPR stimulated plenty of physical movement, which helps learners to relax and enjoy the learning process. In other words, TPR facilitated enjoyable and low-anxiety learning. Specifically, the video recordings reveal how the participants reacted to the TPR method. The following excerpts may reflect how they interacted, were physically active, and enjoyed the classroom activities. For example, when participants were prompted to respond to a hand motion or to produce the target word, they reacted as follows:

"*The participants looked to their friends or the teacher for clues so they could come up with an answer.*"

Also, the hand motions enabled those who hesitated to speak with their peers and teacher to communicate:

"*Making* the *hand motions allowed those who hesitated to speak to interact* "

Moreover, the participants in the TPR group reacted positively to the physical movement as the following excerpts may indicate:

"*The participants seemed to enjoy trying to get the hand motions right, even after several failed attempts.*"

Also, "*they competed to make the hand motions as soon as they hear[d] the word spoken*".

However, physical activity lead to some less fortunate outcomes as follows:

"*The participants got so absorbed with making the motions that they paid less attention to the target words.*"

Furthermore, the low anxiety environment seemed to facilitate joyful learning as the following excerpts may reveal:

"*they enjoyed moving and being in front of their peers.*".

"*those who were sat down cheered their friends who were competing to make the hand motion.*"

The excerpts reflect young learners' natural need to interact and how interaction stimulates deeper learning which agrees with Swain's output hypothesis (Swain, 2000).

Secondly, singing songs also facilitates social interaction, physical movement, and various emotional expressions as the following excerpts may reveal.

When two participants were asked to lead the singing, they interacted with their teacher as follows:

"*the participants interacted with the instructor as he gave them instructions on how to sing.*"

Although much less than in the TPR intervention, there was some physical movement as follows:

"*the participants clapped the rhythm and stood up while singing.*"

When the first two participants had sung the song, their friends wanted to have a chance to perform too:

"*The participants were eager to come forward to sing.*"

In sum, instructions regarding how to sing in groups led to teacher-student interaction. Also, taking turns to sing stimulated student-student interaction as the participants reminded each other of whose turn it was to sing. Singing songs involved less physical activity as only clapping, standing up, and swaying was accepted. However, less physical activity may, at the same time, have allowed for more focus on language features such as pronunciation and intonation. Overall, the singing group appeared keen to sing and expressed high levels of enjoyment, which was in line with related literature

that discussed advantages of using songs in young learners' classrooms (Millington, 2011; Shin, 2017).

Finally, the participants in the TPR&S group seemed, likewise, to enjoy the benefits of both singing and physical movement as the following excerpts may reveal.

As the participants learned the hand motions, they liked to show their friends what they have learned as follows:

"*they interacted with their friends by demonstrating how to make the motions to their peers.*"

Moreover, the singing in the TPR&S groups was accompanied by the hand motions, which is expressed in the following excerpt:

"*they sang the song while making the hand motions.*"

The participants in the TPR&S groups seemed to have a good time singing and making hand motions as follows:

"*Everyone seemed to be having fun while trying out what they had learned by singing and making hand motions*" and "*their bodily expressions appeared very vibrant*".

"*The combination of songs and hand motions seemed to be very satisfying to the participants.*"

In brief, singing and TPR lead to a more multi-faceted learning environment where the students had to use more senses simultaneously. Such variety in the learning process may stimulate more interaction and a higher level of enjoyment during the intervention.

5.5 Conclusion

The current investigation sheds light on young learners' vocabulary learning in a Thai EFL context. The analysis of the receptive and productive vocabulary tests reveal that songs and TPR are two alternative effective teaching methods and are recommended for use in young learners' settings. Indeed, the participants' receptive and productive vocabulary knowledge enhanced significantly after the intervention, which supports previous findings on young learners' vocabulary knowledge (Asher 1977; Bernal Suancha, 2013; Naeini & Shahrokhi, 2015; Nation&Hees, 2017; Davis, 2017 Nuraeni, 2019). Moreover, the participants' receptive vocabulary knowledge developed more compared to their productive vocabulary knowledge, which agrees with earlier findings on vocabulary development on the vocabulary continuum (Nation, 2013, Sukying, 2017, Nontasee, 2020). However, neither method was significantly better than the others to improve the participants' vocabulary knowledge. The participants' reaction to the teaching methods suggests that TPR&S facilitated the best learning conditions with

high levels of interaction, moderate levels of physical movement, and high levels of emotional satisfaction. Lastly, the current study suggests that songs and TPR stimulate effective vocabulary learning in young learners' settings and can be recommended for implementation in young learners' classrooms.

5.6 Limitations of this study and recommendations for further studies

The scope of this study was limited to investigate the effects of two teaching methods on young learners' receptive and productive vocabulary knowledge and their reaction to these methods. However, there are many other aspects of language learning that need to be covered to ensure that a teaching method is truly effective. Aspects, such as the teaching method's effect on accuracy, pronunciation, and motivation are, likewise, relevant to successful language learning and are worth exploring in future studies.

Also, the number of participants in the current experiment was rather low, so, a higher number of participants is recommended in future studies to ensure a more thorough statically analysis. Moreover, the intervention lasted only six weeks which may be a rather short period for applying the outcomes to a broader population. Future studies could be longitudinal studies and seek to find the long-term effects of using songs and TPR.

Furthermore, most of the children in the current investigation were from higher social classes, as most of the parents are university lecturers or business people. Thus, future research may consider including children with different backgrounds to further explore the effectiveness of the methods.

Finally, the participants in the current investigation were all pre-schoolers. Some aspects of investigated very young children may influence the results. For example, some children in pre-school are still struggling with some aspects of their L1. Therefore, they are not ready to fully engage with L2. Future studies may apply the teaching methods to primary and secondary levels to find out how effective songs and TPR are with other age groups.
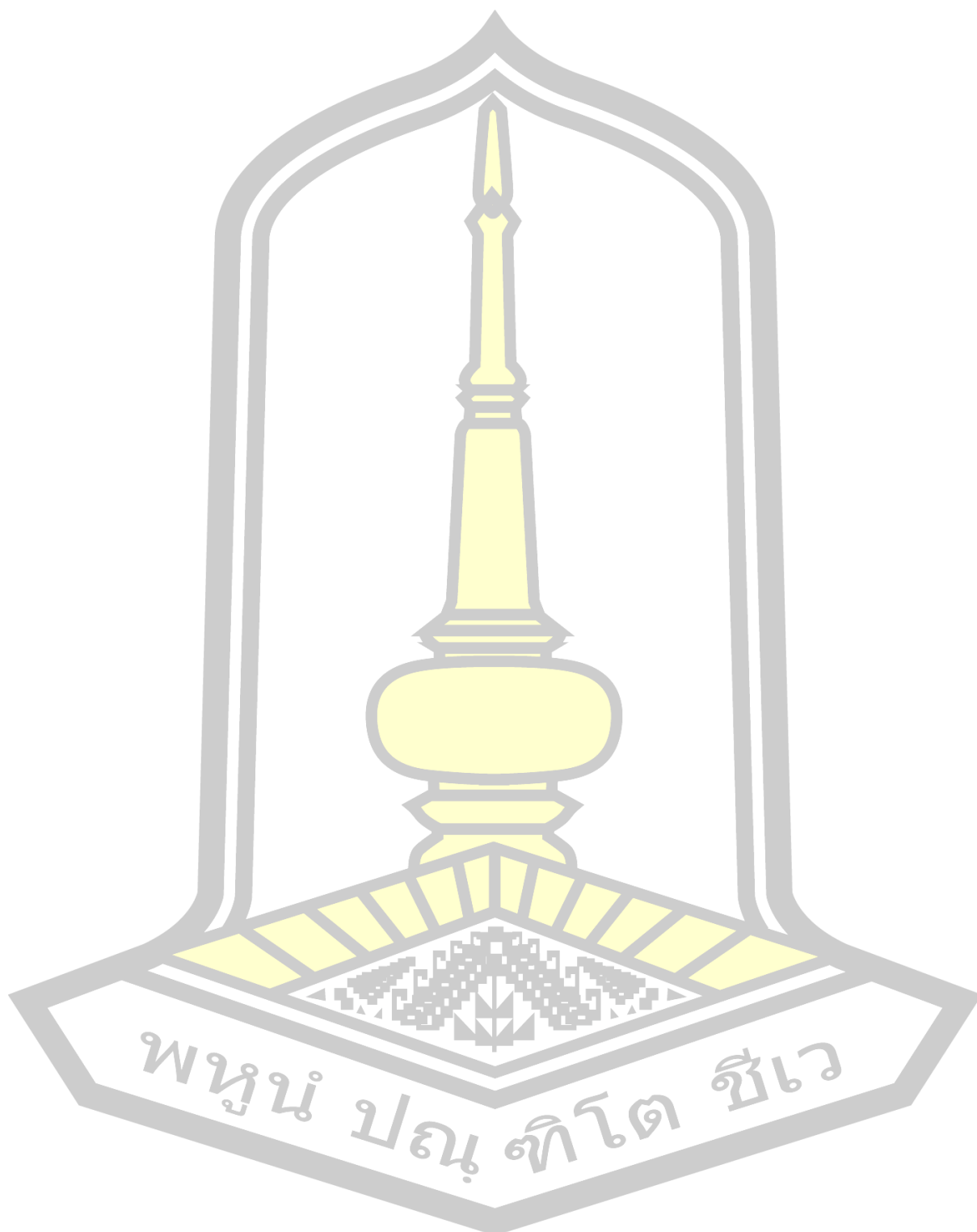
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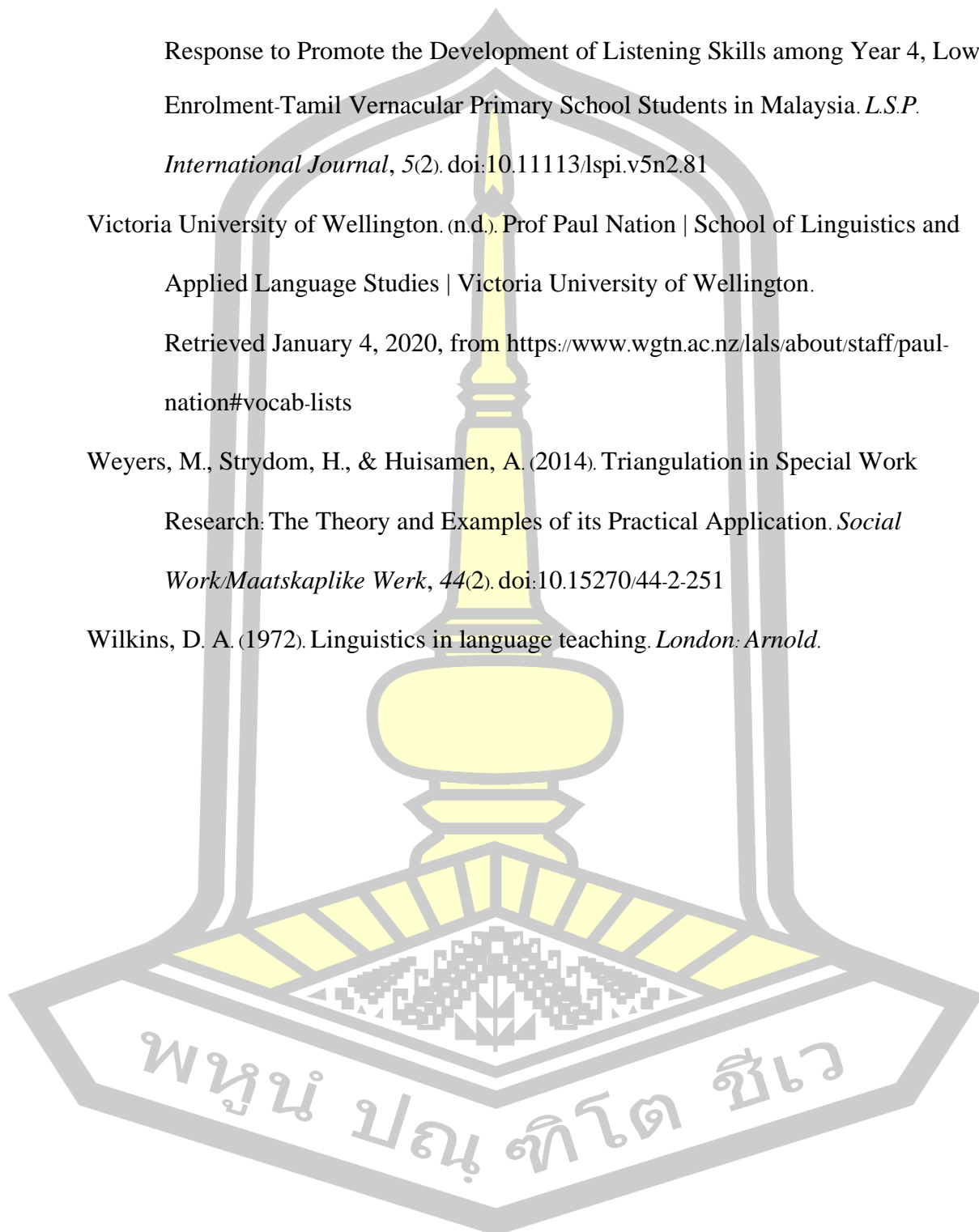
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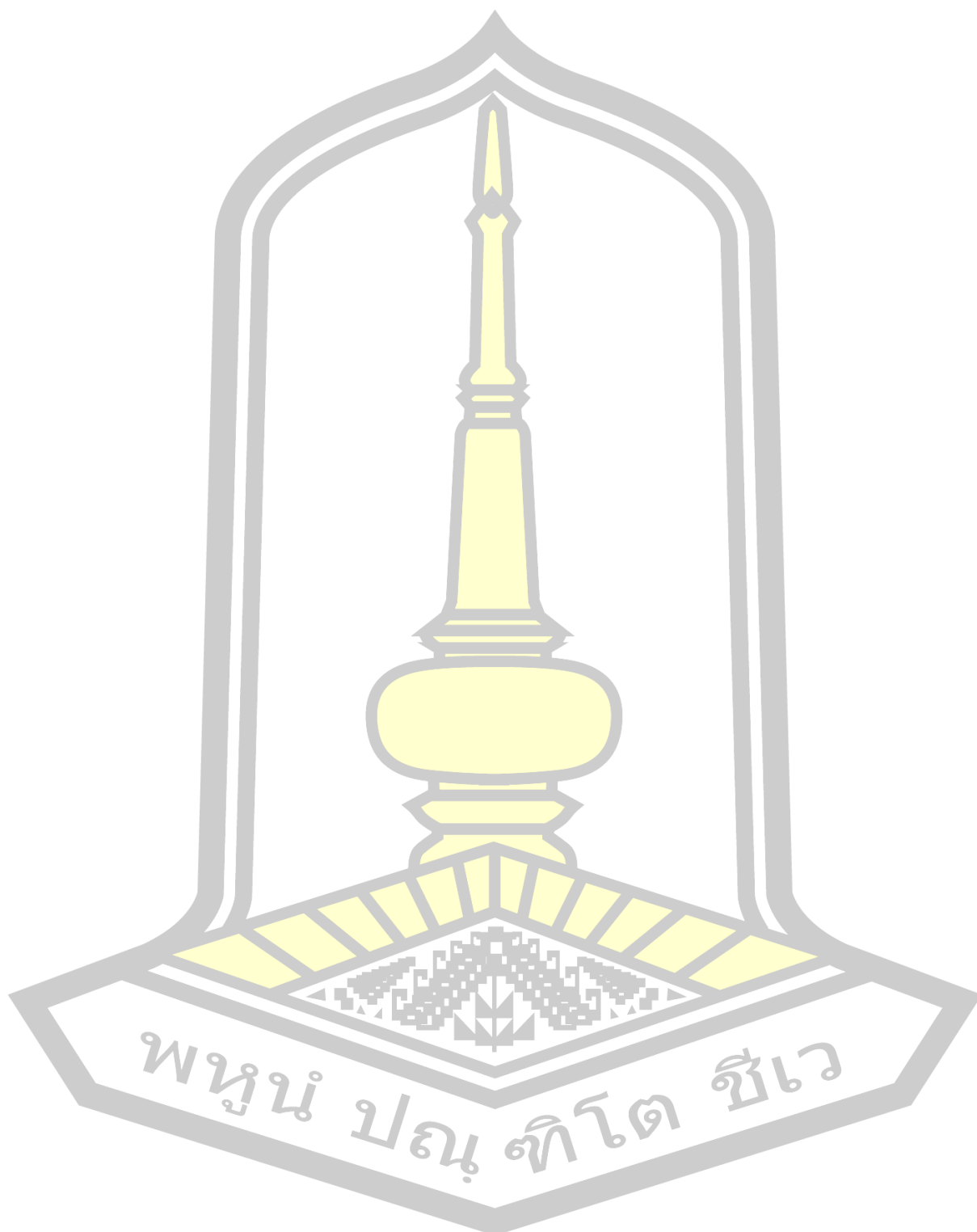
Appendix A: List of selected songs

Song's Title: What do you do every day?

Source: https://mapleleaflearning.com/

The four target words that will be taught through this song are:

   1) Book   2) room   3) clean   4) watch

The words are highlighted in bold script in the lyrics.

Every day, every day

What do you do every day?

Every day, every day

What do you do every day?

I **clean** my **room**

I wash my face

I ride a bike

I take a bath

I comb my hair

I brush my teeth

I read a **book**

I **watch** TV

Every day, every day

What do you do every day?

Song title: What's this?

Source: adapted from https://www.dreamenglish.com/starkids/whatsthis.html

The four target words that will be taught through this song are:

1) Key   2) Table   3) Clock   4) Box

What's this?
What's this? (x8)

It's a pencil
It's a crayon
It's a snake
ooooh! yucky!

What's this? (x8)

It's a notebook
It's an eraser
It's a spider
ooooh! yucky!

What's this? (x8)

It's a pen
It's a ruler
It's a worm
ooooh! yucky!

(Additional stanza)

What's this? (x8)

It's a **key**
It's a **table**
It's a skunk
ooooh! yucky!

It's a **clock**
It's a **paper**
It's a snail
ooooh! yucky!

It's a **pencil** case
It's a book bag
It's a snail
ooooh! yucky!

What's this?
What's this? (x8)

It's a pencil
It's a crayon
It's a snake
ooooh! yucky!

What's this? (x8)

It's a notebook
It's an eraser
It's a spider
ooooh! yucky!

What's this? (x8)

It's a pen
It's a ruler
It's a worm
ooooh! yucky!

(Additional stanza)

What's this? (x8)

It's a **key**
It's a **table**
It's a skunk
ooooh! yucky!

It's a **clock**
It's a **paper**
It's a snail
ooooh! yucky!

It's a pencil case
It's a book bag
It's a snail
ooooh! yucky!

Song title: What Can You Do?

Source: adopted from http://www.dreamenglish.com/actions

The four target words that will be taught through this song are:

1) Play   2) Drink   3) Talk   4) Eat

How about you? (x3)

What can you do?

Jump, I can jump (x2) Jump (x7) I can jump

Swim, I can swim (x2) swim (x7) I can swim

Ride a bike, I can ride a bike (x2) ride (x7) ride a bike

Refrain:

How about you? (x3)

What can you do?

Read, I can read (x2) read (x7) I can read

Play guitar, I can play guitar (x2) play (x7) play guitar

Sing a song, I can sing a song (x2) sing (x7) sing a song

Appendix B: Lesson plans

In this appendix, the three lesson plans covering the TPR group, the song group, and the TPR&S group are outlined.

The lesson plan for teaching 12 target words using songs in Preschool II

Target words: 12 items,

Objective for the lesson plan: the 12 target words, six nouns and six verbs, are taught over 12 periods for 30 minutes each time.

The songs that are sung and what words they will cover are as follows:

What do you do every day?

    2) Book   2) room   3) clean   4) watch

What's this?

    2) Key   2) Table   3) Clock   4) Paper

How about you?

    1) Play   2) Drink   3) Eat   4) Talk

The 12 target words are displayed in the table below in two parts of speech, nouns and verbs. Moreover, the table displays what frequency level the words are at according to the New General Service List (NGSL), the Common European Framework of Reference (CEFR), and a list of words aligned with the National Core Curriculum in Thailand. The table shows what level each word is at.

	Nouns	CEFR	NGSL	Thai NC		**Verbs**	CEFR	NGSL	Thai NC
1	Book	A1	192	Included	7	Talk	A1	82	Included
2	Room	A1	413	Included	8	Play	A1	166	Included
3	Paper	A1	499	Included	9	Watch	A1	306	Included
4	Table	A1	637	Included	10	Eat	A1	453	Included
5	Key	A1	712	Included	11	Drink	A1	720	Included
6	Clock	A1	836	Included	12	Clean	A1	813	Included

Group A will be taught the target words using TPR commands as outlined in the table below

Group A	TPR		
Objective	Teach four target words in four days **using by** use of four corresponding images and hand motions. Tools: Flashcards and TPR commands with corresponding hand motions. Target words: Room, book, clean, and watch TPR commands/chunks: Read a book, clean my room, , and watch TV		
Day/instruction steps	First step	Second step	Third step
1st period	Teach the first four target words using pictures. Emphasize the pronunciation of the words, the initial sound of each word, the amount of syllables, and the meaning in L1.	Introduce the TPR hand motions for the target words.	Do TPR activities such as "Simon says".
2nd period	Revise the target words while displaying the pictures.	Do more TPR activities such as jump in line, Simon says **race**.	
3rd period	Revise the TPR commands while pointing out the pictures that represent the target words.		
4th period	Do more TPR activities such as students' **performance telephone** answered with TPR,		

The two other weeks of implementation of songs follow the same outline. In addition, the words taught in previous lessons are recycled in the following weeks.

Group B will be taught the target words using songs as outlined in the table below

Group B	Songs		
Objective	Teach four target words in four days using four pictures and one song Song: What do you do very day? Tools: Flashcards, television, Target words: Room, book, clean, and watch		
Day/instruction steps	First step	Second step	Third step
1st period	Teach the first four target words using pictures Emphasize the pronunciation of the words, the initial sound of each word, the amount of syllables, and the meaning in L1	Play the song: Play it once or twice on a television or a computer to introduce the song's tune and content.	Teach the song: Teach the refrain first and introduce a line or two from the stanza.
2nd period	Revise the target words while displaying the pictures.	Teach the song: Teach the whole song "What do you do every day?"	Implement a song activity such as singing in groups (boys and girls)
3rd period	Revise the song line by line while pointing out the pictures that represent the target words	Implement more singing activities such as solo, duet,	
4th period	Sing the song using previous singing activities and add some more "guessing the voice of the singer", walking around the chairs		

The two other weeks of implementation will follow the same outline. However, the previous taught words will be recycled in the following weeks.

Group C will be taught the target words using songs and TPR commands as outlined in the table below

Group C	Songs and TPR		
Objective	Teach four target words in five days using six pictures and four TPR commands/chunks		
	Tools: Flashcards, songs and TPR commands		
	Target words: Room, book, clean, and watch		
	Song: What do you do every day?		
	TPR commands/chunks: Read a book, clean my room, read a book, and watch TV		
Day/instruction steps	First step	Second step	Third step
1st period	Teach the first four target words using pictures Emphasize the pronunciation of the words, the initial sound of each word, the amount of syllables, and the meaning in L1	Play the song: Play it once or twice on a television or a computer to introduce the song's tune and content.	Teach the song: Teach the refrain first and introduce a line or two from the stanza.
2nd period	Revise the target words while displaying the pictures.	Teach the song: Teach the whole song "What do you do every day?"	Integrate motions to the song as displayed in the song video.
3rd period	Revise the song line by line while pointing out the pictures that represent the target words	Implement more singing activities such as solo, duet,	
4th period	Sing the song using previous singing activities and add some more "guessing the voice of the singer", walking around the chairs	Do more TPR activities such as jump in line, Simon says race,	

The two other weeks of implementation will follow the same outline. However, the previous taught words will be recycled in the following weeks.

Appendix C: Procedure for the implementation of songs and TPR

The procedure for the implementation of songs

Steps	Procedure
Pre-teaching the target words with pictures	The target words are pre-taught by using flashcards to illustrate the words. Then, the target words are explicitly taught in the following steps: 1. A picture of the TWs is shown and uttered by the instructor. The participants can repeat the words but are not directly encouraged to do so. 2. The word is uttered again with an emphasis on the initial sound of the word, for example, the word book and its first sound /b/ /book/. Then, the word is uttered a third time and a clap given for each syllable. After that, the clapping of the syllables is repeated once or twice. Next, the participants are asked how many claps they can count. 3. The participants are asked if they know the Thai equivalent for the word. They can raise their hands and guess.
1	Songs are played on a TV, or a computer, and students watch the video and listen to the song
2	The song is replayed a few times, and some pictures in the video are discussed to enhance engagement with the song and understanding of the lyrics and words.
3	The instructor sings the song slowly and stops to highlight some words. Then, the refrain is taught line by line. The participants listen and repeat. Before the end of the period the song is sung one more time.
4	The next three days the song is sung several times in various ways. For example, the class can be divided into two groups and they can sing the song by taking turns.

The procedure for implementation of TPR

Steps	Procedure
Pre-teaching the target words with pictures	The target words are pre-taught by using flash cards to illustrate the words. Then, the target words are explicitly taught in the following steps: 1. A picture of the TWs is shown and uttered by the instructor. The participants can repeat the words but are not directly encouraged to do so 2. The word is uttered again with emphasis on the initial sound of the word. For example, the word book can be pronounced /b/ /book/. Then, the word is uttered a third time and a clap given for each syllable in the word, for example, the word "table" gets two claps. After that, the clapping of the syllables is repeated once or twice. Next, the participants are asked how many claps they can count. 3. The participants are asked if they know for the Thai equivalent of the word. They can raise their hands and guess and are praised for any effort, especially if they get it right.
1	Each word is associated with a body motion and is demonstrated to the participants until they can do the motion themselves.
2	The target words are uttered several times simultaneously with the body motion and the participants will be encouraged to imitate the gestures
3	The next three days, the target words are repeated with the motions in various ways, for example, by using games such as Simon says, guessing the motion, move fast, and others.

The procedure for the implementation of TPR and songs (TPR&S)

Steps	Procedure
Pre-teaching the target words with pictures	The target words are pre-taught by using flashcards to illustrate the words. Then, the target words are explicitly taught in the following steps: 1. A picture of the TWs is shown and uttered by the instructor. The participants can repeat the words but are not directly encouraged to do so. 2. The word is uttered again with an emphasis on the initial sound of the word, for example, the word book and its first sound /b/ /book/. Then, the word is uttered a third time and a clap given for each syllable. After that, the clapping of the syllables is repeated once or twice. Next, the participants are asked how many claps they can count. 3. The participants are asked if they know the Thai equivalent for the word. They can raise their hands and guess.
1	Songs are played on a TV, or a computer, and students watch the video and listen to the song.
2	The song is replayed a few times, and some pictures in the video are discussed to enhance engagement with the song and understanding of the lyrics and words. Then the song is taught line by line, stanza by stanza. The participants are encouraged to try to sing along.
3	The TPR hand motions are introduced, practiced, and incorporated into the song. Then the song is sung several times while doing the hand motiongs.
4	The next three days the song and TPR hand motions are revised in different ways. . For example, the class can be divided into two groups and they can sing the song by taking turns while making the hand motions..

Appendix D: Letter of consent

Dear parents or guardians,

As a part of completing my MA in English Language Teaching in the faculty of Humanities and Social Sciences Mahasarakham University, I need to conduct research related to English language teaching. Hence, in agreement with my advisor, Apisak Sukying, PhD, and with the school director's approval, I will conduct research in Mahasarakham University Demonstration School Primary, preschool II where your child is enrolled. To collect the data from the participants in preschool 2/1-4 I need to ask for your consent to collect and use the data for the purpose of analysis and to publish the findings from the research

The research is taking place from 24th January – 6th March 2020. The child's information will be collected from the child's teacher and by implementing two vocabulary tests. Twelve target words will be taught throughout 15 days of teaching, and the child's English vocabulary knowledge will be collected by using two tests before and after teaching them the target words. Moreover, the child's behavior during English class will be recorded by video recordings. All data will be analyzed and used for the purpose of writing a thesis which is a part of completing the degree. In addition, the results will be disseminated to the public in the form of a research paper or an oral presentation. However, your child's personal information will not be recognized in any publication of the research.

All the raw data will be stored in hard-copy and soft-copy for six months and will then be confiscated.

Thus, I would like to ask for your consent to include your child in this research project. Also, I need your consent to collect the data mentioned above from your child.

Please submit the answer sheet to your child's teacher before 6th March 2020

Yours sincerely,

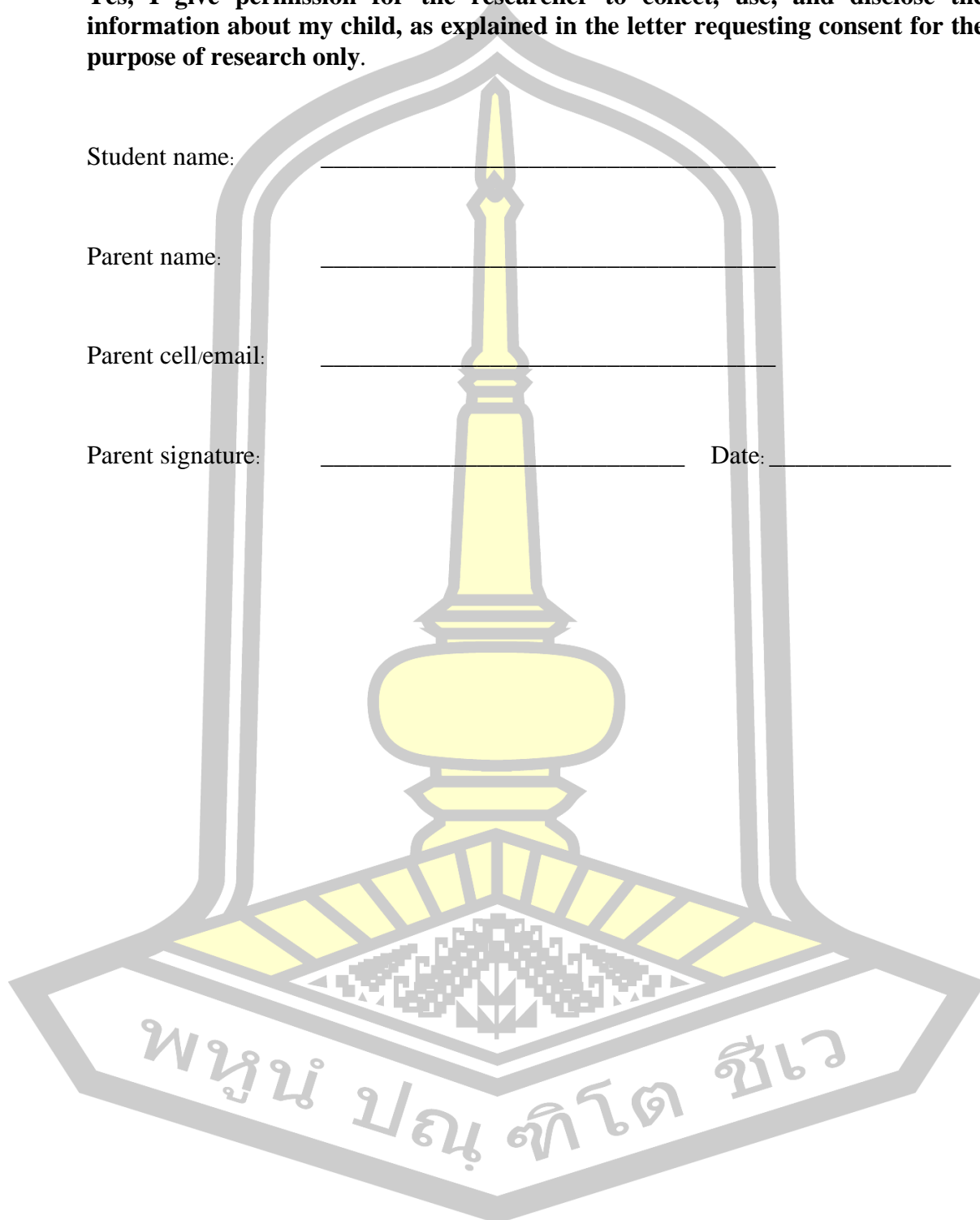Ernst Suni Magnussen

Thank you!
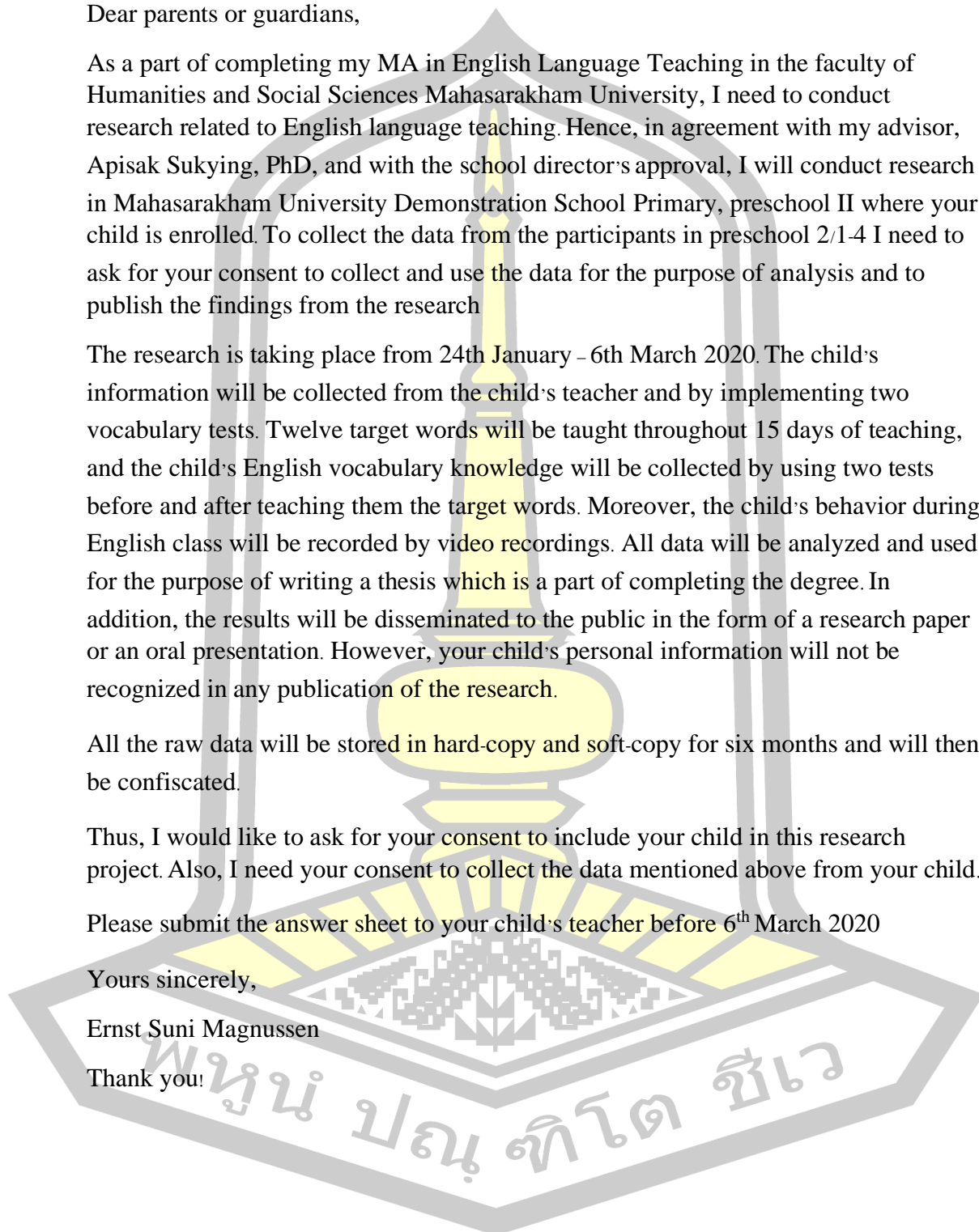
Yes, I give permission for the researcher to collect, use, and disclose the information about my child, as explained in the letter requesting consent for the purpose of research only.

Student name: _____

Parent name: _____

Parent cell/email: _____

Parent signature: _____ Date: _____

หนังสือยินยอม

เรียนท่านผู้ปกครอง

ในคณะที่ข้าพเจ้ากำลังศึกษาระดับปริญญาโทหลักสูตรการสอนภาษาอังกฤษ ณ คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยมหาสารคาม ส่วนหนึ่งของการสำเร็จการ คือข้าพเจ้าจะต้องทำการวิจัยที่เกี่ยวข้องกับการสอนภาษาอังกฤษ

ดังนั้นด้วยความเห็นชอบจากอาจารย์ที่ปรึกษาของข้าพเจ้า ผศ. ดร.อภิศักดิ์ สุขยิ่ง และ ด้วยความเห็นชอบของผู้อำนวยการโรงเรียน ที่ข้าพเจ้าจะดำเนินการวิจัย คือโรงเรียนสาธิตมหาวิทยาลัยมหาสารคามฝ่ายประถม ข้าพเจ้าต้องขอความยินยอมจากท่านในการรวบรวมและใช้ข้อมูลของลูกหลานของท่านเพื่อการวิเคราะห์และเผยแพร่ผลการวิจัย เพราะข้าพเจ้าจะรวบรวมข้อมูลจากเด็กนักเรียนในห้องเรียนระดับอนุบาล 2 ห้อง 2/1-4

การวิจัยเริ่มตั้งแต่วันที่ 24 มกราคม ถึงวันที่ 6 มีนาคม 2563 ข้อมูลของเด็กจะถูกรวบรวมจากครูผู้สอนเด็กและทำการทดสอบคำศัพท์สองแบบ

ข้าพเจ้าจะสอนคำศัพท์เป้าหมาย (คำศัพท์คัดเลือก) สิบสองคำตลอด 15 วันของการสอน และทดสอบความรู้คำศัพท์ภาษาอังกฤษของเด็กโดยใช้แบบทดสอบสองชุดก่อนและหลังการสอนคำศัพท์เป้าหมาย (คำศัพท์คัดเลือก) นอกจากนี้ข้าพเจ้าจะอัดวิดีโอในห้องเรียนเพื่อบันทึกพฤติกรรมของเด็กในชั้นเรียนภาษาอังกฤษ ข้อมูลทั้งหมดข้าพเจ้าจะวิเคราะห์และใช้เพื่อจุดประสงค์ในการเขียนวิทยานิพนธ์ซึ่งเป็นส่วนหนึ่งของการสำเร็จการศึกษาระดับปริญญาโท

นอกจากนี้ผลลัพธ์จากงานวิจัยข้าพเจ้าจะเผยแพร่สู่สาธารณะในรูปแบบของการรายงานการวิจัยหรือการนำเสนอด้วยวาจา อย่างไรก็ตามข้อมูลส่วนบุคคลของบุตรหลานของท่านจะไม่ได้เผยแพร่ในที่สาธารณะ

ข้อมูลดิบทั้งหมดข้าพเจ้าจะจัดเก็บในรูปแบบสำเนาอิเล็กทรอนิกและสำเนาแบบเป็นเล่ม ในระยะเวลาหกเดือน จากนั้นข้าพเจ้าจะลบข้อมูลทั้งหมด

ดังนั้นข้าพเจ้าขอความยินยอมจากท่านที่จะให้ลูก หรือ หลานของท่านรวมในโครงการวิจัยนี้ นอกจากนี้ข้าพเจ้าต้องการความยินยอมจากท่านในการเก็บรวบรวมข้อมูลดังกล่าวข้างต้นจากลูกหลานของท่าน

โปรดส่งกระดาษคำตอบให้กับครูประจำชั้นก่อนวันที่ 6 มีนาคม 2563

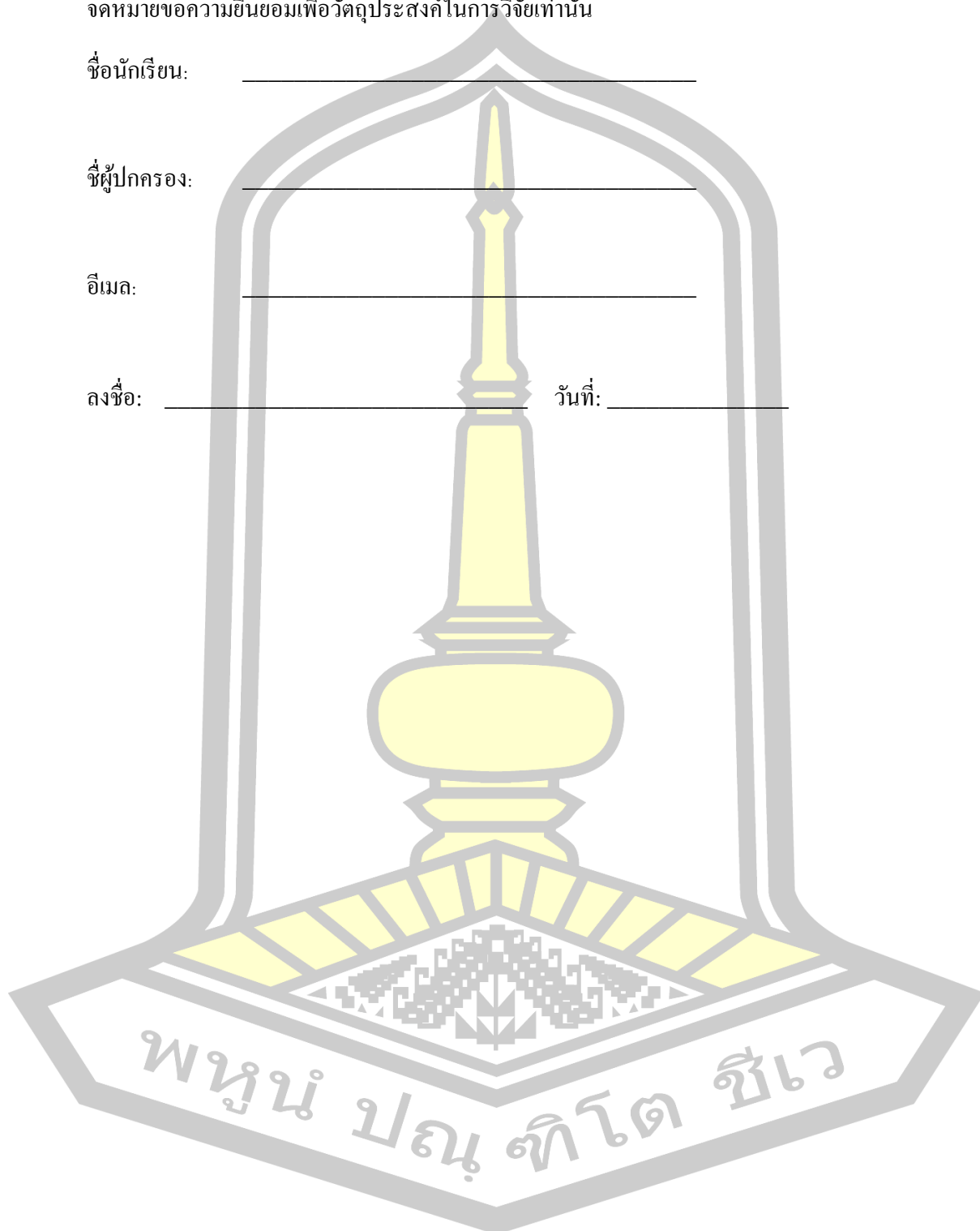ขอแสดงความนับถือ

นาย Ernst Suni Magnussen

ขอบคุณครับ

ข้าพเจ้าอนุญาตให้นักวิจัยรวบรวมใช้และเปิดเผยข้อมูลเกี่ยวกับลูกหลานของข้าพเจ้าตามที่อธิบายไว้ใน
จดหมายขอความยินยอมเพื่อวัตถุประสงค์ในการวิจัยเท่านั้น

ชื่อนักเรียน: _____

ชื่อผู้ปกครอง: _____

อีเมล: _____

ลงชื่อ: _____ วันที่: _____

Appendix E: School's approval to conduct research and collect data

BIOGRAPHY

NAME   Mr Ernst Suni Magnussen

DATE OF BIRTH   14 September 1986

PLACE OF BIRTH   Faroe Islands

ADDRESS   562 M. 1, Takonyang Sub-district, Kantharawichai
                      District, Maha Sarakham Province, 44150

EDUCATION   2018 Bachelor of Arts (B.A.) in English Rajabhat
                           Mahasarakham University
                      2020 Master of Education (M.Ed.) in Mahasarakham
                           University