The Effect of Task-Related Focus-on-Forms Instruction on EFL Vocabulary Development in Thai Primary School Students

Yanee Methapisittikul

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The examining committee has unanimously approved this Thesis, submitted by Miss Yanee Methapisittikul , as a partial fulfillment of the requirements for the Master of Education English Language Teaching at Mahasarakham University

Examining Committee

..... Chairman
(Pilanut Phusawisot , Ph.D.)

..... Advisor
(Asst. Prof. Apisak Sukying , Ph.D.)

..... Committee
(Eric A. Ambele , Ph.D.)

..... External Committee
(Asst. Prof. Kittitouch
Soontornwipast , Ed.D.)

Mahasarakham University has granted approval to accept this Thesis as a partial fulfillment of the requirements for the Master of Education English Language Teaching

....

(Assoc. Prof. Nittaya Wannakit , Ph.D.) (Assoc. Prof. Krit Chaimoon , Ph.D.)
Dean of The Faculty of Humanities and Social Sciences
Dean of Graduate School

TITLE The Effect of Task-Related Focus-on-Forms Instruction on EFL Vocabulary Development in Thai Primary School Students

AUTHOR Yanee Methapisittikul

ADVISORS Assistant Professor Apisak Sukying , Ph.D.

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ABSTRACT

This quasi-experimental study investigated the effect of task-related focus-on-forms (FonFs) (i.e., written form and word parts) instructions on EFL vocabulary development in Thai primary school students. The participants were 72 sixth-grade Thai EFL students and were divided into two groups: the written form group participants (n = 37) who received the written instruction and the word parts group participants (n = 35) who received the word parts instruction. In the written form group, the teacher taught the one hundred and four target words by giving their definitions (in the form of target language explanations), followed by the participants' spelling and example sentences; hence the focus was on the written form. The word parts group did the same as in the written form group. Besides, they focused on word parts as another aspect of word form. One vocabulary size test was conducted to measure the number of vocabulary words the participants possess. Four different tests were employed to measure receptive and productive knowledge of vocabulary development, and two questionnaires were employed to explore the participants' perceptions. Descriptive and inferential statistics were employed to analyze the data of the study. Inferential statistics, including dependent and independent samples *t*-tests, were used to analyze the quantitative data. The results showed a significant improvement in both groups after the interventions. These findings indicate the significant effect of task-related focus-on-forms (FonFs) on vocabulary development among Thai primary school participants. In addition, the perception questionnaire data analysis also revealed that task-related FonFs in written form and word parts groups were helpful for learning vocabulary. Overall, the current study indicates the significance of task-related FonFs instruction on EFL vocabulary learning and development. Pedagogical implications and suggestions for further studies are presented.

Keyword : Task-related FonFs, focus on written form, focus on word parts, vocabulary development, English language students

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CHAPTER I
INTRODUCTION

1.1 Background to the study

Vocabulary knowledge comprises multiple levels of understanding, from knowing a word to using it in contexts (Coxhead, 2007; Laufer, 1990; Nation, 1990, 2001,2013; Richards, 1976). Moreover, it has been described as a continuum (e.g., Henriksen, 1999; Palmberg, 1987; Sukying, 2017, 2018a) and, alternatively, as a construct consisting of approximately nine different sub-knowledge aspects (Coxhead, 2007; Laufer, 1990; Nation, 2013; Richards, 1976). With its sophisticated construct, several aspects of word knowledge are required differently. The acquisition of one word influences the acquisition of other related words. (Gonzalez-Fernandez & Schmitt, 2019; Henriksen, 1999; Nation, 2013; Read, 2000; Schmitt, 2014; Sukying, 2017, 2022). For second language (L2) learners, many aspects of vocabulary knowledge need to be considered. How vocabulary is learned or what teaching techniques are processed has been purposefully focused on in theoretical discussion (Laufer & Hulstijn, 2001; Nation & Webb, 2011). Larger vocabulary knowledge is also necessary for academic achievement because having a broader vocabulary could lead to a greater understanding of information than individuals with a limited vocabulary (Sedita, 2005). However, insufficient vocabulary size, lack of English exposure, and lack of self-confidence are concerning factors in acquiring vocabulary (Magnussen & Sukying, 2021; Yunus & Waelateh, 2016).

Vocabulary knowledge research is attracted by vocabulary researchers in how words are stored, activated, processed, and retrieved by language users (Aitchison, 2012; Meara, 2009). Furthermore, the receptive and productive continuum is one development-focused continuum that highlights learners' vocabulary knowledge in use (Laufer & Goldstein, 2004; Schmitt, 2010; Webb, 2008, 2009; Zhong, 2016). This continuum explains why some words are known receptively but cannot produce productively. Receptive vocabulary knowledge, also known as meaning recognition or meaning recall (Schmitt, 2010), is the idea that learners receive language input through listening or reading and comprehending it (Nation, 2013). On the other hand, productive knowledge, also known as form recognition or form recall (Schmitt, 2010),

is the idea that learners produce language forms by speaking or writing to communicate with others (Nation, 2013).

Vocabulary researchers have emphasized the developmental knowledge of vocabulary; learners acquire different aspects of vocabulary at varying stages along the receptive and productive distinction. Some previous studies found that receptive word knowledge was acquired before productive word knowledge, and the receptive and productive dimensions are fundamental to conceptualizing word knowledge development (e.g., González-Fernández & Schmitt 2019; Sukying, 2017, 2022; Webb, 2009). Similar studies also indicated the acquisition order of vocabulary knowledge aspects (Nontasee & Sukying, 2020, 2021; Sukying & Nontasee, 2022; Sukying, 2017, 2018a). Together, these studies suggest that some aspects of a word are learned before others. Specifically, receptive knowledge of vocabulary is acquired before productive knowledge, and the form and meaning of the word are more accessible before its use in context.

Regarding vocabulary learning, the form and meaning knowledge is the initial stage of vocabulary acquisition (Elgort, 2011; Henriksen, 1999; Jiang, 2002; Miller, 1999; Sukying, 2017; 2018a) and the fundamental aspects of vocabulary knowledge (Laufer & Goldstein, 2004; Sukying, 2017; 2018a). In this regard, researchers and practitioners draw greater attention to form focus instruction (FFI). FFI can be in two types: Focus on Form (FonF) and Focus on Forms (FonFs). In FonF, the students view themselves as the language learners and the language is viewed as a tool for communication. Thus, the learners learn the language incidentally. On the other hand, FonFs is a more traditional structure-based instruction focusing on distinct linguistic structures (Laufer, 2005; Long, 1991; Sheen, 2002). In the case of word knowledge, FonFs is designed to focus mainly on the word form and deliver a clearer understanding of the lexical form. Therefore, FonFs, a deliberate teaching, seems to be appropriate primarily to teach a word in a particular word form knowledge. Theoretically, frequent opportunities for practicing these structures in communicative and non-communicative activities should be supplied. In practice, vocabulary was solely practiced or in a minimal context (Schmitt, 1998). With this in mind, the task-related FonFs should be applied in the English as a foreign language (EFL) context

for extensive exposure and practice in language classrooms. In so doing, the task-related FonFs, deliberate vocabulary learning, may yield fruitful information for pedagogical implications in language classrooms.

The Involvement Load Hypothesis (ILH) introduced by Hulstijn and Laufer (2001) is also used to account for L2 vocabulary learning. The ILH argued that engagement was made up of three essential elements: need (as a motivational construct), search, and evaluation (as a cognitive construct), each of which was divided into two categories: moderate and strong. The degree of involvement in processing a given word determines its retention (Afshar, 2020; Hulstijn & Laufer, 2001). Some previous studies have examined word learning and retention in a second language and found that tasks assumed with a higher involvement load hypothesis led to higher long-term efficient vocabulary learning (Afshar, 2020; Maleki, 2012; Keyvanfar & Badraghi, 2011). Furthermore, according to cognitive psychologists, memory performance is driven significantly more by the nature of the learner's processing activities than by the learner's intention to learn per se (Eysenck, 1983; Hulstijn & Laufer, 2001). On the contrary, some previous studies showed the opposite results: the task with lower involvement gained more vocabulary knowledge than the task with high involvement and did not always result in greater retention scores (Li, 2014; Un-udom, 2018). The presence or absence of the involvement factors (i.e., need, search and evaluation) influence the task's involvement load (Laufer & Hulstijn, 2001). Tasks with a higher involvement load could be considered more effective for word learning and retention than lower involvement load.

In a Thai EFL context, studies on vocabulary knowledge acquisition showed that Thai learners had deficient vocabulary knowledge, which inadequately relates to other skills of English language development, and they lacked exposure to the target vocabulary items. (e.g., Nontasee & Sukying, 2020, 2021; Sukying, 2017, 2018a, 2018b). The experimental research demonstrated the instructional interventions on vocabulary reflected positive-finding contributions to acquisition and development, which increased and more related to other English proficiency and skills (e.g., Bubchaiya & Sukying, 2022; Magnussen & Sukying, 2021; Nontasee & Sukying,

2021; Sukying, 2021; Yowaboot & Sukying, 2022). It was demonstrated that the more learners' knowledge increased, the more related skills improved.

Furthermore, classroom activities do not provide sufficient opportunities to encounter the target words, so they cannot be learned and stored in memory (Sukying, 2020). Another issue involved the practical mode of achieving the best vocabulary learning. Moreover, teachers focus too much on the meaning, translation, or grammar. This technique may enhance students' lexical memory, but it does not promote the productive use of newly met vocabulary (Duangloy, 2015; Photitheeratot, 2007; Platapiantong & Thienpermpool, 2020). From the practitioner's observation, many primary school students know the words in the book or on the board but do not know the meaning which align with the previous studies (Sukying & Matwangsaeng, 2022; Sukying, 2017). Furthermore, the researcher also recognizes that many students, at the school where the researcher is teaching, know the meaning when the researcher pronounce, but they do not know how to write or read that word. This is the central issue for grade 6 students who have to sit the Ordinary National Examination Test (O-Net), a national test of English, to complete primary school education. The O-NET revealed that English average scores of Thai primary school students in 2019 and 2020 were, out of 100, 29.94% and 34.42% and 43.55% respectively (NIEST, 2019, 2020). These unsatisfactory results were controversial. Some questioned the consistency and validity of the tests, while others doubted the teaching and learning practices in English-language classes in Thai schools (Noom-ura, 2013). In this regard, the proposed study will employ form-focused instruction to enhance students' vocabulary knowledge. The study will emphasize the written forms of the target words and word parts. Furthermore, the study also examines the effectiveness of the word learning, the study set the higher involvement load (index = 4) for one group, and the lower involvement load (index = 3) for another group. The underlying justification for the emphasis is that the form-meaning link is regarded as the initial stage of vocabulary learning (Laufer & Goldenstein, 2004; Magnussen & Sukying, 2021: Sukying, 2017, 2018a, 2022).

Form-focused instruction is a pedagogical approach that relies on students' attention to language form where form includes phonological (sound), morphosyntactic (word

form, word order), lexical, pragmatic, discourse, or orthographic components of language (Collins & Ruivivar, 2020). However, the current research focuses only on morphosyntactic (word form) and lexical. Form-focused instruction and tasks may help Thai students remember and retain the words more effectively. Through this instruction, students will practice the written form of a word and learn the definitions and words' constituent elements/affixes. The level of involvement students process in words will also determine the quality of word retention. As a result, focus on forms will decide factors in L2 development, while the task's involvement load will improve the retention of to-be-learned words or the retention of to-be-learned words. Thus, this instructional method that integrates vocabulary interventions may benefit learners of English (Bowers & Kirby, 2010; Colovic-Markovic, 2017; Magnussen & Sukying, 2021; Nation, 2013).

1.2 Purposes of the research

This study investigated the impact of task-related focus-on-forms instructions for Thai EFL primary students in developing students' English vocabulary on vocabulary development. Additionally, the researcher also explored how students perceive task-related FonFs instruction. This study addresses the following research questions:

1. What are the effects of task-related FonFs (written form and word parts) on the development of receptive and productive vocabulary knowledge?
2. What are Thai EFL primary school participants' perceptions of task-related FonFs on vocabulary development?

1.3 Scope of the research

This study examined the effect of task-related FonFs on vocabulary development employing Nation's (2013) word knowledge framework with a specific focus on written form and word parts. The participants were Thai EFL primary students whose English is A1 level based on CEFR and were divided into two experimental groups: the written form group and the word parts group. This quasi-experimental research used task-related FonFs instructions (Laufer, 2005), as well as the involvement load hypothesis as a tool to influence students' vocabulary knowledge and the vocabulary testing concept (Read, 2000) to measure receptive and productive knowledge. The

questionnaires (Sukying, 2020) were also used to explore students' perceptions of the intervention of task-related FonFs instructions.

1.4 Significance of the study

The significance of the study can be illustrated from different perspectives. Firstly, for students who are interested in learning vocabulary, through task-related instructions, L2 students can recognize and spell the written form of a word. The students can further grasp the roles of word parts and know where to put it in the sentences to express the meaning. Moreover, for students in the specific context of primary education, learning English and knowing a lot of vocabulary can help them considerably.

Secondly, better understanding in students' stage of vocabulary development enable teachers to use suitable pedagogical practices. As primary school students need to develop their English proficiency for future studies, teacher also need to find suitable teaching methodologies to teach students. The present research findings should generate valuable information for those responsible for organizing English courses and related language activities on campus. The lesson plans in the study could be as useful guideline for practitioners when the teacher teaches written form and word parts for vocabulary development.

All in all, this current study contributes significantly to L2 vocabulary teaching and learning and benefited both instructors and students. Foreign language education curriculum developers, syllabus designers and materials writers need to highlight in their curricula, syllabi and materials, the crucial role task-related FonFs activities (e.g., focus on written form and focus on word parts as found in the current study) could play in foreign language vocabulary development. Foreign language teachers, including those who teach English as a foreign language (EFL), should consider and put other aspects of word knowledge (e.g., written form and word parts) into account in dealing with and developing their students' vocabulary reservoir. Instructors may develop effective teaching techniques to be used in the classroom. At the same time, students may gain the ability to learn the words, from recognizing the word to dividing vocabulary into manageable chunks.

1.5 Definitions of terms

Form Focus Instruction (FFI) refers to any pedagogical approach that relies on students' attention to the written form of a language.

Focus on Form (FonF) refers to "drawing students' attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication."

Focus on Forms (FonFs) refers to teaching discrete linguistic structures in separate lessons in a sequence determined by syllabus writers

Task-related Focus-on-Forms instructions refer to learning vocabulary, emphasizing word forms and word parts through tasks (e.g., reading).

Receptive vocabulary knowledge is the ability to know the lexical items, to some extent, through listening and reading.

Productive vocabulary knowledge is the ability to recall and spell words correctly.

Vocabulary development refers to the process of learning and developing vocabulary in Thai primary school student participants

1.6 Structure of the thesis

Chapter I presents the background of the study, purposes of the study, scope of the study, significant of the study and definitions of key terms.

Chapter II presents the construct of word knowledge, task-related approach, Involvement Load Hypothesis (ILH), vocabulary measures, and relevant studies regarding vocabulary acquisition.

Chapter III outlines the research methodology of the current study, including the research design, the participants and setting, the research instruments, as well as data collection and analysis procedures.

Chapter IV presents the study results and interpretation of those findings to answer research questions.

Chapter V shows the conclusion and discussion of the study, implications of the current study, limitations and recommendations for future research are also presented.

CHAPTER II
LITERATURE REVIEW

This chapter introduces the construct of word knowledge and reviews existing research into vocabulary development. It also reviews the instruments used to measure the aspects of word knowledge. The chapter will begin with the word knowledge construct, followed by receptive and productive word knowledge descriptions, and the task-related approach with the involvement load hypothesis. Then it will review some instruments for measuring the aspects of word knowledge used in the present study. The final section of the chapter will review previous studies on word knowledge development.

2.1 Construct of word knowledge

Word knowledge can be referred to as vocabulary knowledge (Laufer, 1998; Nation, 2013) and lexical knowledge (Laufer & Goldstein, 2004; Schmitt, 2014). It is defined differently depending on the research purposes or designs. Specifically, it has been described as a continuum (e.g., Henriksen, 1999; Palmberg, 1987) and, alternatively, as a construct consisting of different sub-knowledge aspects (Coxhead, 2007; Laufer, 1990; Nation, 2013; Richards, 1976). Indeed, the construct of word knowledge involves various degrees of knowing, starting with a superficial familiarity with the word and ending with the ability to use it in context (Laufer & Goldstein, 2004). Vocabulary knowledge research is attracted by vocabulary researchers in how words are stored, activated, processed, and retrieved by language users (Aitchison, 2012; Meara, 2009).

Henriksen (1999) pointed out a three-dimension continuum to reflect the continuing process of vocabulary acquisition. First, a partial-to-precise knowledge dimension indicates the degree of meaning comprehension. Second, a depth-of-knowledge dimension represents the word association knowledge. Finally, a receptive-productive dimension reflects learners' control and access to word knowledge. Next, the continuum perspective of word knowledge is described as a range of interrelated aspects of knowledge. Richards (1976) posited eight components of word knowledge:

1. the spoken form of a word,

2. the written form of a word,
3. the grammatical behavior of the word,
4. the collocational behavior of the word,
5. the frequency of the word,
6. the stylistic register constraints of a word,
7. the conceptual meaning of a word, and
8. the associations a word has with other related words.

Nation (2001: 2013) further advanced a comprehensive list of word knowledge and explained it in detail. This conceptualization of the overall knowledge of a word divides word knowledge into its constituent parts and includes the 18 sub-knowledge aspects. The learning process represents a receptive and productive word knowledge continuum, starting with word comprehension and leading to word use. The framework of word knowledge by Nation (2013, p. 49) is shown in Table 1.

Table 1: Knowing a word (Nation, 2013)

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 spelled?
	Word parts	R	What parts are recognizable 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 this concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make people think of?
		P	What other words could people use instead of this one?
Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must people use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must people use with this one?
	Constraints on use	R	Where, when, and how often would people expect to meet this word?
		P	Where, when, how often can people use this word?

Note: R = receptive knowledge, P = productive knowledge

While Nation's list presents the most comprehensive description of word knowledge to date, it does not specify the relationships between the aspects. Specifically, while the framework has helped explain the whole of what learners must know, it makes no mention of any hierarchical structure, such as which aspects are learned before others or should be taught before others. This constrains its educational effectiveness because it is uncertain how multiple aspects relate to one another and how to prioritize them during teaching. This leaves important questions unanswered, such as the relative contribution of the different aspects to the word knowledge construct (e.g., does the form-meaning link explain most of the variation in vocabulary?), and whether some aspects are generally acquired before some others (e.g., are the derivative forms of a word often achieved before its collocations?).

Nation's (2013) list is the most comprehensive word knowledge framework, which several vocabulary researchers have now accepted, and its concept is described clearly and detailly classified in distinct components. Therefore, the present study aimed to explore it to better understand the word knowledge construct in development via instructional methods. It specified with the word form knowledge, considered the initial knowledge to be known by the language learners. The primary school students were participants in the present study; as such, form knowledge seemed appropriate to be examined. The exploration of the study hopefully provided a clearer picture of word knowledge in development and raised the pedagogical area in vocabulary teaching and learning more effectively and successfully.

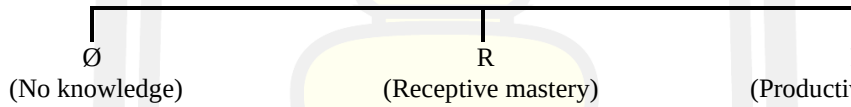
2.2 Receptive and productive vocabulary knowledge

Word knowledge involves the learning process of receptive and productive knowledge (Laufer & Goldstein, 2004; Nation, 2013). The definitions of receptive and productive word knowledge proposed by vocabulary researchers are based on the research purposes (Read, 2000).

Receptive word knowledge is often defined as the ability to recognize the form of a word (Laufer & Goldstein, 2004), perceive its meaning (Webb, 2008), or provide its synonym or translation in the learners' first language (L1) (Webb, 2009). Productive word knowledge is often defined as the ability to retrieve the form and meaning (Laufer & Goldstein, 2004; Webb, 2008) or produce the word according to its L1

equivalent (Webb, 2009). Henriksen (1999) alternatively indicated that the receptive-productive knowledge process is the ability to acquire a word and then use it correctly in context. Further, receptive and productive word knowledge is defined in terms of passive and active (Laufer & Paribakht, 1998; Meara, 1990), recognition and recall (Schmitt, 2010), or comprehension and use (Melka, 1997). These definitions restrict receptive and productive word knowledge to meaning and form.

Furthermore, Schmitt (2019) described that the first point is mainly concerned with the acquisition, precisely how to increase student knowledge to a more advanced productive level. There is plenty of evidence, along with the teacher's experience, to illustrate that receptive mastery of a lexical item which is the ability to understand it while listening or reading, is typically more vital than productive mastery, referring to the ability to produce it in speaking or writing. Almost all studies (i.e., Hayashi & Murphy, 2011; Laufer & Goldstein, 2004) that incorporate both receptive and productive measures indicate more excellent receptive scores. A continuum-based illustration shows the interrelatedness in basic terms (Meara, 1997).



It is noted that the intervals (i.e., learning burden) between *Ø* to *R* and *R* to *P* are roughly similar for most words, as illustrated above. It is likely believed that the learning mechanism occurs in the first illustration of knowing a word to receptive mastery, and productive mastery follows without too much difficulty.

According to prior studies, receiving most words to receptive mastery is rather uncomplicated; the actual problem is to increase such knowledge to productive mastery.

To understand a word while reading, it may be sufficient to recognize its spelling and recall its meaning. All or most other word aspects, i.e., collocation and derivative form, are already presented in the text and may or may not be used to progress the understanding. However, when writing, a person must recognize and generate all of

the various aspects concurrently as well as for listening and speaking. Melka (1997) also divided the distance between reception and production into four stages: imitation or reproduction without assimilation, comprehension, reproduction with assimilation, and production.

Informed by such models of word knowledge, research into the relationship between receptive and productive knowledge should be based on a multi-aspect framework of word knowledge. According to Nation (2013), receptive word knowledge is the ability to recall and recognize multi-aspects of word knowledge in reading and listening, while productive word knowledge is the ability to use various aspects of word knowledge in writing and speaking. Therefore, receptive word knowledge here refers to the ability to know the lexical items, to some extent, through reading. In contrast, productive word knowledge means the ability to recall and spell the word correctly.

2.3 Task-related approach

Word knowledge is vital for acquiring a language, and words are essential to vocabulary development. According to vocabulary studies, second (L2) or foreign language (EFL) learners necessitate receptive knowledge of 8,000 - 9,000-word families to understand a variety of written English texts, as well as knowledge of 6,000-7,000-word families for spoken discourses (Nation, 2006). Despite more than 1,000 hours of systematic instruction, L2 or EFL learners in various countries know around 2,000 - 4,000-word families, and their receptive knowledge was insufficient to build on productive knowledge (Laufer, 2000, 2010). It is challenging to fill the gap between vocabulary size and vocabulary needs in L2 and EFL learners. As a result, it is critical to train or encourage students to become autonomous learners in acquiring vocabulary.

English language learners may benefit from teaching strategies that include knowledge interventions (Bowers & Kirby, 2010; Colovic-Markovic, 2017; Kirby, Bowers, & Deacon, 2009; Nation, 2013). Given that uninstructed knowledge provides some struggling English language learners with a compensation strategy, deliberate vocabulary teaching may support learners harness their knowledge more successfully. Deliberate vocabulary teaching may create knowledge that is different from the

uninstructed knowledge that has been examined in existing correlational or predictive studies. Deliberate teaching should lead to more precise and quicker learning and more explicit knowledge.

The uninstructed position assumes that when the learners encounter a new word, they recognize it as an unknown word, decide to infer its meaning from context by using a variety of linguistic and non-linguistic cues, make a correct guess, and may indeed retain a partial or precise meaning of the word. If the word is not remembered after the learners' first exposure to it, or if only partial information about the word has been acquired, additional encounters with the same word will increase the probability of retaining it and expanding its knowledge. Even if very few words are retained after one communicative activity or text, the cumulative gains over time may be quite remarkable if the learner reads regularly.

Long (1991) defined Focus on Form (FonF) as drawing students' attention to linguistic components that emerge incidentally in sessions whose overarching focus is on meaning or communication. The term 'form' refers to the function that a specific form performs. Attention to the 'form'-ed, for example, incorporates the realization that –ed indicates a previous action. This contrasts with meaning-focused instruction, in which learners must pay attention to the message they aim to communicate or the message in the received input. Nevertheless, FonF is distinguished from the 'traditional' method, teaching discrete linguistic structures in separate lessons in a sequence determined by syllabus writers, which Long calls Focus on Forms (FonFs). Ellis (2001) posited a FonFs approach in which the students view themselves as the language learners and the language as the study aim. But for FonF approach, the role of the learner is that of a language user, and language is viewed as a tool for communication.

The theoretical orientation of FonFs is different. It assumes that L2 language acquisition, particularly for adult learners, is similar to acquiring other cognitive abilities (Bley-Vroman, 1988). Therefore, the principles underpinning grammatical structures should be explained, and frequent opportunities for practicing these structures in both communicative and non-communicative activities should be supplied. FonFs is justified in terms of skill acquisition theory, which distinguishes

three stages: declarative or factual knowledge, which is responsible for knowing what to do with language data and procedural knowledge, which is the use of language according to rules without thinking about them (Anderson, 1982, DeKeyser, 1998). FonFs is designed to focus mainly on the word form and deliver a clearer understanding of the lexical form more slightly than FonF, which is incidentally acquired.

Spelling, choral spelling, providing L1 standard definitions, giving example sentences, and breaking words into affixes in reading activities were referred to as task-related FonFs instructions in the current study. As Laufer (2005) has defined the term task-related FonFs as 'words are the objects of learning, but they are, nevertheless, related to, though not embedded in, a meaning-based task which is central in a lesson'. Therefore, in the case of word knowledge, task-related FonFs instructions seem to be appropriate to primarily teach a word in a particular word form knowledge. Indeed, a word is referred to as the nature of lexical knowledge rather than competence. This is, it is stored and associated in the mental lexicon, i.e., the spoken and written form, grammatical properties, different meanings, network connections, and paradigmatic and syntagmatic relations with other words. Conversely, lexical competence may relate to the accessibility to a word or using a word, i.e., the speed with which the word may be retrieved and the ways to compensate for knowledge limitations.

The FonFs approach is intended to explicitly instruct vocabulary focusing on lexical form, i.e., how to deal with lexical items, rather than FonF. Given its efficacy, this pedagogical approach may yield fruitful information for teachers, learners, educators, and researchers for language classroom practice, especially in EFL contexts. Therefore, this study focused on the task-related FonFs approach to facilitate developing their word knowledge. Specifically, this study emphasized the effect of task-related focus-on-forms (FonFs), a deliberate instruction, to mediate primary school students' vocabulary knowledge in a provincial region of northeastern Thailand.

2.4 Theoretical framework underlying deliberate vocabulary learning

According to the involvement load hypothesis proposed by Laufer and Hulstijn (2001), word learning and retention are affected by the amount of mental effort or involvement that a task requires. Task-induced involvement is a motivational-cognitive construct comprising three task components: need, search, and evaluation.

First, need refers to whether knowledge of novel words is required to complete a task and is involvement's motivational, non-cognitive component. Plus, need is moderate when the task imposes it (e.g., answering reading comprehension questions that require knowledge of previously unknown words) and strong when the learner imposes it (e.g., the learners wish to communicate a concept for which they lack a word). Second, search refers to students' attempts to determine the meaning of unfamiliar words in a task. Search is present when learners must seek the meaning of unknown words to complete a task (e.g., dictionary look-up tasks), and it is absent when no such effort is required (e.g., reading comprehension tasks accompanied by marginal glosses). Finally, evaluation entails comparing a new word to other words and deciding whether it is appropriate in a given context. When learners must distinguish between words provided in a given context (e.g., deciding which meaning of a target word best fits the context in which it is encountered), evaluation is moderate; when learners must make decisions about new words and combine them with known words in original contexts, evaluation is strong (e.g., sentence and composition writing).

The Involvement Load Hypothesis was not initially proposed in the context of form-focused instruction. When vocabulary tasks are compared in terms of mental effort, it is clear that a higher involvement load requires more attention to form (where form refers to lexical items). This is especially true for activities requiring search and evaluation, the two cognitive components of task-induced involvement. When learners look up unknown words in a dictionary while reading (search), for example, they are far more aware of form than when words are glossed in the margin (no search). Glosses allow readers to figure out the meaning of unfamiliar words by paying only cursory attention to their meaning or form. Word look-up, on the other hand, necessitates exiting the text entirely, locating a lexical item in a dictionary

based on its spelling, selecting the appropriate meaning when multiple definitions apply (evaluation), relocating the lexical item in the original text, and re-reading the context in which it was found (i.e., the sentence or a larger portion of the text) with the new word defined. Similarly, a writing task that requires learners to use previously unknown words to compose a composition (strong evaluation) is deemed superior to a reading comprehension task with marginal glosses (no evaluation) because the former requires more attention to form than reading words in context for comprehension only.

A number of previous studies have shown positive results on Involvement Load Hypothesis. Nassaji and Hu (2012) explored the effects of task-induced involvement load on Chinese ESL learners' use of lexical inferencing strategies and vocabulary retention. The findings revealed a complex relationship between successful inference, learner involvement, and word recall. Sarani, Negari, and Ghaviniat (2013) created six tasks with varied levels of involvement. Three of the tasks were receptive and the other three were productive. Receptive tasks were true-false, matching, and multiple-choice inducing involvement load indexes of 1, 2, and 3 respectively. Similar research yielded parallel results, demonstrating the importance of ILH in language development (Ghabanchi, Davoudi & Eskandari, 2012; Hazrat, 2015; Pourakbari & Biria, 2015; Sarani et al., 2013). In another study, Marmol and Sanchez-Lafunte (2013) investigated the effects of four different types of exercises on EFL vocabulary acquisition. The participants were 28 primary school English as a second language (ESL) learners in Spain. Eighteen words were randomly chosen from a short novel, including six nouns, six adjectives, and six verbs. Reading comprehension with marginal glosses, reading comprehension and gap-filling, writing with marginal glosses, and writing with dictionary use were given to participants in four different tasks with varying involvement loads. All the participants took a receptive and a productive vocabulary test. The findings revealed that conducting a task with the highest level of involvement resulted in the maximum performance in L2 vocabulary learning.

In this study, the involvement load hypothesis, which encompasses the notions of 'cognitive effort,' 'depth of processing,' 'attention,' and 'elaboration,' maintained that

'involvement' is a motivational-cognitive construct, which can explain and predict learners' success in the retention of the new words that they are learning. (Laufer, 2017b), p. 6). According to Hulstijn and Laufer (2001), the level of involvement in the processing of a given word (i.e., whether the task has been set internally by the learner or externally by someone like the teacher, whether to search the new word or not, and whether to evaluate the new word in comparison to other words or against its various senses) determines the quality of the word retention.

As a result, the participants in this study were exposed to the target words as they went through a significantly deeper level of processing regarding the target words. They were also more highly involved with the task of learning the target words, most likely because they paid greater attention to not only the 'meaning' and 'use' aspects of the target words but also to the 'form' concurrently. It is generally agreed that activities with a higher involvement load are better for word learning and retention than those with a lower involvement load.

2.5 Vocabulary measures

Measuring vocabulary knowledge is necessary for testing and evaluating learners' language ability in terms of word knowledge and teaching and learning a second language (Nation, 2013; Staehr, 2008; Vermeer, 2001). Vocabulary is seen as a priority in language teaching and learning, necessitating the use of assessments to track learners' learning progress and determine if their lexical knowledge is adequate to satisfy their communication demands. There are various measures developed for capturing learners' word knowledge, and various researchers have advocated for different tests based on their concepts of word knowledge (Read, 2000; Schmitt, Nation, & Kremmel, 2020; Webb, 2013). Some measures were designed to simultaneously assess multiple aspects of knowledge (Read, 1988; Schmitt, 1998), while others sought to assess learners' progress along a knowledge continuum (Wesche & Paribakht, 1996).

Read (2000) divided vocabulary measurement into receptive and productive knowledge. Measuring receptive knowledge refers to assessing the ability to recognize and know the words, whereas measuring productive knowledge refers to the ability to retrieve and use them. Indeed, reception and production of word knowledge

are typically separated from comprehension and use. Comprehension means how well students grasp the target words in the test context, such as reading comprehension, while use reflects students' recall of vocabulary knowledge.

To date, there has been no consensus on which aspects of word knowledge a vocabulary test should actually measure. Read and Chapelle (2001) suggested that vocabulary measurement should estimate the size (the number of words known) and depth (how well a particular word is known or depth of knowledge). It was also suggested that vocabulary tests should go beyond decontextualized word lists to generate positive washback on the teaching and learning process.

Most vocabulary tests should purposely measure the viewpoint of a receptive and productive continuum. Earlier studies seem to capture aspects of either receptive or productive knowledge and using only receptive or productive tests to capture such knowledge learning may produce misleading information (Read, 2000). Thus, the present study would test the word aspects, both receptively and productively.

2.5.1 Measures of receptive vocabulary

Receptive word knowledge can be measured via matching, multiple-choice, and yes/no formats, i.e., the Vocabulary Levels Test (VLT), the Vocabulary Size Test (VST), and the Eurocentres Vocabulary Size Test (EVST).

The VLT, first designed by Nation (1990) and validated by Beglar and Hunt (1999) and Schmitt, Schmitt, and Clapham (2001), involves matching word definitions. Test-takers must match the word with the provided connotation at four frequency levels and an academic vocabulary level. All words are delivered in the same part of speech to prevent offering any indications on the connection of the word category. The information obtained from the VLT is useful for individuals working in pedagogical contexts since it shows whether students reach the lexical thresholds of comprehension required to deal with specific language production, such as speaking and reading comprehension [The words in the VLT: the 2,000-word, 3,000-word, 5,000-word, 10,000-word bands and the University Word List (Guoyi & Nation, 1984) or the Academic Word List (Coxhead, 2000)]. An example is shown below (Schmitt, Schmitt, & Clapham, 2001, pp. 82-83):

1.	business	part of a house
2.	clock	
3.	horse	animal with four legs
4.	pencil	
5.	shoe	something used for writing
6.	wall	

The Vocabulary Size Test (VST), created by Nation and Beglar (2007) and validated by Beglar (2010), is a multiple-choice test format with words inserted in a non-descriptive context. Test-takers must choose among four alternatives, one correct meaning, and three distractors. It is a common way of testing lexical knowledge, particularly in written and spoken forms (Read, 2000). The VST employs 14-word bands from Nation's (2006) word list, and the word selection procedures are the same as the VLT. Nation categorized the sets of the words into 1,000-word frequency bands. The frequency list was originally 14 bands; however, it was subsequently expanded to 25 bands. The following is an example question from the VST (Nation & Beglar, 2007, p.75):

1. poor: we are poor.
    a. have no money
    b. feel happy
    c. are very interested
    d. do not like to work hard

Most studies have employed multiple-choice items as their receptive format, which is not the best option because accurate guesses are likely to inflate the scores (Gyllstad, Vilkaite, & Schmitt, 2015). Instead, it is suggested that meaning and form recall formats be employed.

The Eurocentres Vocabulary Size Test (EVST) was developed as a yes-no or checklist test (Read, 2000; Schmitt, 1994) and validated in several editions (Meara & Buxton, 1987; Meara & Jones, 1988). It gives a representative sample of words in various frequency levels and enables test-takers to check or mark *yes* or *no* to indicate whether the words are known or not. The Yes-No vocabulary test includes many lexical items in the test battery (Wesche & Paribakht, 1996). However, test-takers may exaggerate their knowledge by marking uncertain words as known (Sukying,

2017). Then, non-words are contained in the target word list. The following is an example (Meara & Buxton, 1987, p. 154):

(Tick the words you know the meaning of, e.g., forecast)

1. gathering
2. strap
3. untarned
4. royalment
5. flane
6. article
7. risent
8. instructness

The three tests describe above target the receptive ability of meaning and form recognition. These tests are simple to administer, score, and analyze. However, one common weakness of these tests is the possibility for the test-taker to guess the correct answers.

Translation tests are also commonly used to assess meaning comprehension and form recognition (Laufer & Goldstein, 2004). Depending on the direction of the translation, it can be either receptive or productive (Read, 2000). For example, receptive meaning comprehension and form recognition require students to transfer word meanings from the target language to their own language; on the other hand, productive meaning comprehension and form recognition version of the test demands students to translate the word meaning from their first language to their target language. The design is beneficial for learners who lack adequate ability in the target language to reflect their understanding of word meaning in the target language.

In the alternative, other receptive measures, such as the receptive orthography task and the Word Segmentation (WS) test, assess a specific feature of lexical knowledge. Webb's (2005, 2009) receptive orthography task demands students to select the correctly spelt target words among three distractors that are phonetically and orthographically similar to the target words. The following is an example (Zhong, 2014, p. 88):

Please select the word that is spelled correctly.

a. dirrect b. diret c. direct d. derict

The Word Segmentation (WS) Task designed by Hayashi and Murphy (2011) assesses receptive knowledge of morphological awareness by requiring students to break down word components into morphemic units. The WS task has 34 target words with class-changing and class-maintaining derivational affixes and inflectional suffixes. The number of affixes in the lexical items varies depending on the underlying morphological structure of the word. For example, the term "unkind" has one prefix (un- + kind), but the term "unkindly" has two affixes (un- + kind + -ly). All target attached elements, including their frequency bands, are compared to Francis and Kučera's (1982) frequency data.

All the tests listed above have been standardized as placement indicators. Based on actual evidence proving a link between the number of words known and full linguistic competence, the tests may assign learners to different levels of language competence and estimate the receptive knowledge necessary for certain activities. These tests can be tailored to fit specific objectives or aims.

2.5.2 Productive measures of vocabulary knowledge

Measuring productive word knowledge usually necessitates learners to recall and use the words. The productive measures encompass both controlled and free production. Read (2000) presented a sentence writing task without restriction on the form of the target word, permitting students to demonstrate various aspects of their productive word knowledge. The task, for example, assesses if students (1) understand the meaning of the target word, (2) know how the word functions grammatically within a sentence, (3) its correct form, (4) how the word collocates properly with other words, and (5) can use the word productively in their writing. Indeed, even if students may not know the word's meaning, they can compose a grammatically correct sentence in the context in which the word is used (Bruton, 2009; Laufer & Goldstein, 2004; Read, 2000). Furthermore, learners may default to the form they are most familiar with. Zhong (2012) also proposed a sentence writing version in which students can utilize the target word's form to write more than one sentence. This may give a rich background for learners to exhibit their ability to use the words in context and prevent them from fitting a word into context without knowing its meaning.

Other standard productive measures are the Affix Elicitation (AE) and productive morphology tasks. Building on Nation's (2001) morphological task, the Affix Elicitation (AE) Task, designed by Hayashi and Murphy (2011), is used to assess productive morphological knowledge. The test consisted of 34 items: ten inflectional suffixes, twelve class-changing derivational affixes, and twelve class-remaining derivational affixes. It includes an equal number of grammatical functions (i.e., six adjectives, six adverbs, six verbs, and six nouns). Examples are shown below (Hayashi & Murphy, 2011, pp. 119):

1. I went to the doctor for a consultation. (consult)
2. Normally she intensifies the effect by turning off the lights. (intensify)

Schmitt and Zimmerman (2002) designed the productive morphology task, a sentence completion task that offers context for the target words. Test takers must identify if there is a form for the target word's word class and also write the correct word class of the target word, as illustrated in the examples below (Schmitt & Zimmerman, 2002, p. 169):

ASSUME	
Noun	He made an _____ that she likes meat.
Verb	He can _____ that she likes meat.
Adjective	He had an _____ idea that she likes meat.
Adverb	He decided _____ that she likes meat.

The productive morphology task (Schmitt & Zimmerman, 2002) examines word contextualization. It also assesses the receptive ability of non-target words, which learners must know to grasp the context. Ishii and colleagues (Ishii, 2005; Ishii & Schmitt, 2009) suggested a simple and decontextualized test to measure morphological knowledge. The adverb column was particularly deleted due to its low dependability. Indeed, completion of adverbs was shown to be strongly related to knowledge of adjectives. The test's reliability without the adverb column was 0.94. (Ishii, 2005). An example from the modified productive morphology task is shown below (Ishii & Schmitt, 2009, p. 209):

Target word	Noun	Verb	Adjective
stimulate			
educate			

In conclusion, the present study aimed to measure the forms of words, including written form and word parts knowledge. The measures used in the present study was developed to suit measuring any knowledge aspects based on previous vocabulary measures. Receptive and productive knowledge of written form was first developed based on Laufer and Goldstein (2004) and Sukying and Nontasee (2022). The receptive test was presented as a multiple-choice test, and it was used to measure mainly spelling knowledge, and the productive test encouraged learners to recall a word. Next, receptive knowledge of word parts was designed based on Mizumoto, Sasao, and Webb (2019) and presented as a multiple-choice format to measure word parts in a particular word class knowledge receptively. Finally, productive knowledge of word parts was modified based on Sukying and Nontasee (2022) to measure particularly word-class knowledge. This test aimed to encourage learners to recall the right part of speech of the word.

2.6 Relevant studies of vocabulary acquisition

Many vocabulary researchers have explored the nature of the vocabulary knowledge construct to understand the roles of the word aspects and facilitate the language learners of English in acquiring and developing their word knowledge more successfully. In addition, a number of studies also explore the impact of the involvement load on vocabulary development. Research has been conducted on understanding the multiple aspects of word knowledge and their contributions to L2 vocabulary development.

Schmitt and Meara (1997) examined how two aspects of word associations and grammatical suffix knowledge change over time, both receptively and productively. There were three groups of participants, first-year and last-year university students and last-year high school students. The results found that word association knowledge and suffix knowledge correlated with each other, both receptively and productively. However, the participants demonstrated poor knowledge of the word derivation, even for words rated as known, and poor word production, even if they knew the meanings.

The study first suggested that word knowledge is developed in multiple language exposures, and learners' word knowledge develops over time.

Laufer and Goldstein (2004) also tested the hypothesis that there is hierarchical development from receptive to productive word knowledge of the form and meaning of a word in 435 L2 learners, resulting in productive knowledge being more advanced than receptive knowledge. The results further showed that passive recall was the best predictor of classroom language performance and a significant correlation between receptive and productive knowledge. Hayashi and Murphy (2011) argued that receptive knowledge of a word is first acquired and built on productive knowledge. Then, Zhong (2014, 2018) explored the interface between receptive and productive word knowledge in a multi-aspect framework to understand the transfer and change of these two dimensions over time, with the examination of the relationships between multiple receptive word aspects and productive word use in 513 Spanish junior high school students. The results gave empirical evidence for the multi-aspect construct of receptive and productive vocabulary knowledge and illustrated the contribution of each aspect to productive word use in context.

González-Fernández and Schmitt (2019) explored the nature of the vocabulary construct, including form-meaning links, derivatives, multiple meanings, and collocations in 144 Spanish learners of English. They found that the receptive and productive dimensions are separate constructs, and the distinction between receptive and productive knowledge is fundamental to conceptualizing the development of word knowledge. Similarly, Nontasee and Sukying (2020) investigated the acquisition of word knowledge in 154 Thai EFL learners in grades 10 to 12. The results implied that the learners' language exposure level reflected their word knowledge. Indeed, the 12th-grade students performed better than the 10th-grade students in all word tests. Nontasee and Sukying (2021) further explored the learnability of word knowledge. The participants, 261 Thai senior high school students, were assessed on their receptive and productive knowledge of word aspects, i.e., word part, form-meaning link, and collocation knowledge. The results found that productive knowledge was achieved after receptive knowledge. The study also indicated a significant correlation between receptive and productive knowledge. Together, these two studies suggest that

various word aspects are known at different rates and imply the acquisition pattern for teaching and learning a word.

More recently, Sukying and Nontasee (2022) further explored the nature of the vocabulary knowledge construct along with a multidimensional framework. The receptive and productive aspects of written form, word parts, form-meaning link, association, collocation, and grammatical function were measured with the two different grades of Thai EFL high school learners, including tenth grade (n = 84) and twelfth-grade (n = 72) students. The results showed that receptive knowledge was first known before productive knowledge but revealed different vocabulary acquisition patterns between these two grades. The aspects of form and meaning knowledge remained conclusions. However, the study implied that the acquisition of word knowledge was a hierarchical learning process. Therefore, for this implication, the present study aimed to increase learners' word knowledge through the interventions and seek to develop word knowledge.

Furthermore, Webb (2005; 2009) used a multi-task design to examine five-word aspects receptively and productively: orthography, meaning, grammatical function, association, and syntax. The participants were Japanese university students who were recruited to either a receptive or productive learning group. The findings revealed that students in the receptive learning group outperformed those in the productive learning group on receptive and productive orthographic tests and productive meaning, association, and syntax. This implies that receptive learning tasks may not only contribute to the development of receptive knowledge but also to a significantly greater increase in productive knowledge. The second experiment investigated the effectiveness of these tasks over a range of time lengths. Participants in the productive learning group outperformed those in the receptive learning group on all receptive and productive knowledge aspects. Webb (2009) alternatively found using receptive and productive word pair tasks that receptive learning resulted in greater improvements in receptive meaning. Still, productive learning resulted in greater advancements in both receptive and productive form and in-depth productive knowledge. Webb indicates that, in practice, both receptive and productive tasks should be incorporated to teach vocabulary. Receptive vocabulary learning tasks, for example, can only be employed

in the classroom for a limited duration, but productive vocabulary learning tasks are a better choice for home assignments since they benefit from stronger growth in more aspects of vocabulary knowledge. However, these studies do not clearly describe the relationship among various word aspects and how different aspects influence one another.

Sukying (2020) further explored the effects of affix instruction on acquiring a word. The receptive and productive affix knowledge measures were administered to 92 participants. Participants in the treatment group were provided with explicit instruction on English affixes (Bauer & Nation, 1993), while the participants in the control group were not. The results demonstrated a positive effect of affix instruction in English language classrooms. Specifically, the affix features involving linguistic and semantic transparency increased participants' receptive and productive performance. This suggests that the explicit instruction of affix knowledge can help English learners to understand words and facilitate their vocabulary acquisition. However, learners may require more time to understand the meaning of the affixes and practice affixations. More recently, Sukying (2022) also constructed a detailed representation of English affix acquisition through a study of high school learners in Thailand and proposed a five-stage order of English affix acquisition. This finding raises questions about the effect of English affix knowledge on vocabulary acquisition and has pedagogical implications for language classrooms.

More studies in the involvement load hypothesis, Namaziandost, Hosseini, and Utomoo (2020) compared the impact of high involvement load versus lack of involvement on vocabulary learning among Iranian sophomore EFL learners. 150 participants were chosen from intact BA classes in translational studies. They were divided into two groups: the first experimental group with high involvement load and the second experimental group with lack of involvement load. However, the results indicated that vocabulary retention was not necessarily be affected by high involvement load. Though, these results can be useful for teachers of English as a foreign language (EFL) and vocabulary instructors to design effective reading activities with proper level of reading difficulty.

Another research on the involvement load hypothesis was tested on the details of learners' task-induced online learning behavior via a specially designed computer program. Li (2014) conducted the experiment with 81 participants with four tasks with different amount of involvement load. The participants were later tested on the retention of the target words that were shown in the texts. The delayed posttests were given to the participants two weeks after the posttest. The data were analyzed both quantitatively and qualitatively. The findings revealed that various tasks did stimulate various online learning behavior patterns in terms of the frequency of look-ups and the length of time spent on target words. It was also discovered that more involvement tasks did not always result in higher retention scores.

Kim (2008) also proposed the study on the Involvement Load Hypothesis on two experimental groups on vocabulary learning. Experimental group 1 investigated the effectiveness of three vocabulary tasks with different levels of task-induced involvement. Experimental group 2 investigated whether two tasks hypothesized to represent the same level of task-induced involvement would result in the equivalent *initial* learning and *retention* of target words. The results of Experiment 1 showed that a higher level of learner involvement during the task promoted more effective *initial* vocabulary learning and better *retention* of the new words. The findings of Experiment 2 indicated that when different tasks had the same involvement load, they resulted in similar amounts of *initial* vocabulary learning and *retention* of new words.

Mondria and Wiersma (2004) studied receptive and productive learning of decontextualized word pairs. This showed that 41%-49% of the target words were recalled after 15 minutes of learning. Laufer (2006) then examined the effectiveness of FonFs tasks and proved the role of word-list learning in retention. The participants performed 71.63% on the target L2-L1 pairings, 88% on the immediate test, and 62% on the delayed test. Folse (2006) further argued that the number of word retrievals was important for word retention in task involvement load. By practicing multiple task exposures, learners had the highest involvement load (Laufer & Hulstijn, 2001).

These studies indicate that word knowledge is developed in multiple language exposures, and learners' vocabulary knowledge develops over time and provides that the effect of the intervention with word instructions on vocabulary acquisition

facilitates and increases the development of word knowledge more successfully in learners. Yet, most previous studies provide only the nature of the vocabulary construct in vocabulary growth. To increase learners' word knowledge, given uninstructed word knowledge provides some struggling English language learners with a compensation strategy, deliberate vocabulary teaching as well as involvement load hypothesis may help learners harness their word knowledge more successfully and may lead to more accurate and quicker learning, as well as more explicit knowledge (Sukying, 2020). The instructional methods that integrate vocabulary interventions may benefit learners of English (Bowers & Kirby, 2010; Colovic-Markovic, 2017; Nation, 2013). Therefore, the present study aimed to examine the contributions of the instructional methods through task-related approaches along with the involvement load indexes of 3 and 4 to acquiring a word, particularly word form knowledge (spelling and word class), both receptively and productively.

2.7 Summary of the chapter

Many factors must be taken into account to help learners acquire vocabulary. To reach their academic goals of learning English and pursue their future studies, learners need to know the vocabulary as much as possible. Different learning strategies have been successful in assisting students in efficiently acquiring vocabulary. Also, teachers can select the most effective teaching strategies to guide students in learning as much vocabulary as they can. Form-focused instructions may help Thai students remember and retain the words more effectively since students will practice the written form of a word and learn the definitions and words' constituent elements/affixes. When learners know the written form of a word, its meanings, its word parts, they can understand the context and will later communicate more effectively. Also, the task-related focus-on-forms instructions helps learners develop a positive perspective on learning English.

Research Question 1 (What are the effects of task-related FonFs (written form and word parts) on the development of receptive and productive vocabulary knowledge?): To examine the effectiveness of task-related FonFs on acquiring a word by students.

Research Question 2 (What are Thai EFL primary school participants' perceptions of task-related FonFs on vocabulary development?): To seek how the students' understanding of word form knowledge through task-related FonFs instructions.

Nation's (2013) word knowledge framework is used specifically for the reception and production of written form and word part knowledge. The vocabulary testing theory was also used to measure receptive and productive word knowledge (Read, 2000). Further, the task-related FonFs approach was an instructional intervention to increase learners' word knowledge, particularly written form (spelling) and word parts (word-class) at both reception and production. The involvement load hypothesis also lied in this study to examine the word retention. The study was designed as a pretest-treatment-posttest. Therefore, the independent variable in the present study was task-related FonFs instructions, and the dependent variables were the receptive and productive knowledge tests. The following chapter would discuss the methodology of the study, including participants and setting, data collection procedures and, at last, data analysis plans.

CHAPTER III
RESEARCH METHODS

This chapter presents the methodology of the current study, which is to investigate the effects of task-related focus-on-forms on instruction on vocabulary development among primary students in a Thai EFL context. The study will focus mainly on the written form and word parts aspect. First, the research design and paradigm adopted in the study are discussed. This follows by a description of the participants involved in the study and justifications for the choice of such cohorts of participants. Next, the research instruments, data collection procedures, and data analysis are discussed quantitatively. Finally, the chapter ends with a summary of the current chapter.

3.1 Research design and paradigm

This quasi-experimental research design examined how sixth-grade students improve their vocabulary knowledge by using form-focus instructions. There were two experimental groups: the written form group and the word parts group. The written form group was taught using form-focused instruction, where word forms (written form) were mainly focused (i.e., written form instruction). The word parts group was taught using form-focused instruction where the parts of speech were focused (i.e., word parts instruction). Both groups were examined on vocabulary knowledge receptively and productively and used the same English textbook, "*Fly with English six.*" Both groups were from two different intact classes where the researcher was currently teaching. Both groups were given a vocabulary size test and each group took a pre-test in the first week, followed by 18 hours with the same vocabulary list. At the end of the instructions, each group took a posttest and a questionnaire as shown in Table 2.

Table 2: Research design

Group	Vocabulary Size Test	Vocabulary Tests	Treatments	Vocabulary Tests	The Questionnaire
Written form Group (*N* = 37)	✓	✓	18 hours of task-related focus-on-written form instructions.	✓	✓
Word Parts Group (*N* = 37)	✓	✓	18 hours of task-related focus-on-word parts instructions	✓	✓

The two groups only differed in the nature of the instructions provided over 18 hours. The classroom activities began with a warm-up, followed by instruction, practice, a production stage, and a wrap-up. The researcher provided the same teaching procedures to the participants. The only slight difference was that the written form group focused on the written form and definitions, whereas the word parts group analyzed words and built words with morphemes. For example, when participants encountered the target word, the researcher would repeat the spelling and give its definitions to the written form group, but the researcher would break the word down into its constituent elements and provide meanings for the word parts group.

3.2 Participants and setting

3.2.1 Participants in the main study

This study included 74 grade six students from the intact classes studying at a local primary school under the office of the Basic Education Commission (Ministry of Education in Thailand) in the northeast of Thailand. All participants were between 11 to 12 years old and Thai native speakers. All participants had been studying English for eight years and had never been to any English-speaking country. Both groups of participants (written form and word part groups) received the vocabulary size test to be measured their size of vocabulary knowledge before the experiment. The written form group had 1,100-word families, and the word parts group had 1,200 words of vocabulary size. This process helped to control and suit participants for the research setting. The participants in the two groups were considered to have similar levels of vocabulary size knowledge.

All participants in both groups received an average of three hours of English instruction per week. In addition, there was a computer and projector in each classroom where the researcher could provide instructions more effectively. Besides, it should be noted that the names of the participants are credentials to maintain anonymity.

3.2.2 Ethical consideration

The current study required approval from Mahasarakham University's Ethics Committee. Therefore, all participants were recruited using a systematic process. Ethical approval was granted by a school principal, together with the Participation Information Sheet (PIS) and Principal Consent Form (PCF). Second, before the study began, a Participant Information Sheet explaining the research and a consent form was given to each possible participant. Lastly, students, as well as their parents, signed the consent form and participated in the study

3.3 Test development

To answer the research questions, the researcher has administered five vocabulary tests, namely the vocabulary size test, the form spelling test, the word parts identification test, the word-spelling complement, and the word parts test. The tests were administered before and after the treatment. The vocabulary size test consisted of 30 items for 40 minutes to take at the beginning of the study. The form spelling test and the word parts identify test consisted of 30 items for 40 minutes, while the word-spelling complement and the word parts test consisted of 20 items using 40 minutes. All the vocabulary were selected from students' textbooks for grade 6. The test development procedures began with specifying the purpose of the tests, the researcher creating the test items and scoring rubrics. All the tests were reviewed by three English education experts, and the test items were piloted. The following section will explain the criteria for selecting the target word lists for teaching in the study.

3.3.1 Selecting the target words for the study

One hundred thirty-seven words were first selected from the textbook "*Fly with English 6*" in Chapters 4-6 (Table 3). The researcher chose chapters 4 to 6 because of time limitations that the researcher could only process the study during the middle of the semester. These 137 words were later rechecked against the New General Service

List (NGSL) to ensure that the target words were appropriate for 6th-grade English (Browne, Culligan, & Phillips, 2013). Furthermore, these words were also in the 2,000 most frequently used words list in which learners could grasp the majority of the context because these words had covered a big percentage of the word families in spoken and written texts and appeared in a variety of contexts which would lead to the better understanding of the language (Laufer & Nation, 2012).

Table 3: The vocabulary selected from Fly with English 6

Unit	Objectives	Vocabulary	After Checked the NGSL remains
4	Talking about and comparing how things taste, feel, sound and look	cook, competition, healthy, new, restaurant, pupil, meal, kind, taste, excellent, strange, smell, lovely, fresh, dry, interesting, think, better, invite, great, sound, playground, arrive, uniform, thin, teach, delicious, dessert, noisy, boring, enjoy, fire engine, feel, softest, best, nicest (37)	cook, competition, healthy, new, restaurant, pupil, meal, taste, excellent, strange, smell, lovely, fresh, dry, think, invite, great, sound, arrive, uniform, thin, teach, enjoy, feel (24)
5	Talking about how long a present action or state has been going on for	high, deep, live, since, for, cave, husband, everything, kitchen, bedroom, bathroom, toilet, long, far, move, fall, sometimes, stay, holiday, born, belong, grandparents, business, university, decide, adventure, country, marry, wedding, cousin, build, brother, glass, climb, ladder, neighbor, favorite, cardboard, basement, father, mother (41)	high, deep, live, since, for, kitchen, bedroom, long, far, move, fall, sometimes, stay, belong, business, university, decide, adventure, country, marry, cousin, build, brother, glass, climb, neighbor, favorite, mother, father, holiday, husband (31)
6	Giving suggestions and advice for everyday problems	idea, add, bake, angry, floor, wet, happy, ill, should, bigger, put, plant, change, curtain, armchair, mirror, boring, beautiful, comfortable, bright, cool, fresh, big, problem, singer, actor, lesson, piano, guitar, other, hard, story, tired, call, steal, parents, theater, wrong, holiday, difficult, try, solve, yourself, ask, agree, disagree, hot, thirsty, cooler, classroom, fridge, bottle, plant, shade, keep, outside, blow, through, space (59)	idea, add, angry, floor, wet, happy, ill, should, put, plant, change, curtain, mirror, beautiful, comfortable, bright, cool, fresh, big, problem, singer, actor, lesson, piano, guitar, other, hard, story, call, steal, theater, wrong, holiday, difficult, try, solve, yourself, ask, agree, disagree, hot, bottle, plant, shade, keep, outside, blow, through, space (49)
Total		**137**	**104**

After rechecking with the New General Service List (NGSL), 104 remaining words were later used in the pilot test to determine the familiarity of each word. This vocabulary checklist was conducted by 50 primary school students excluded from the main study to ensure the best available of these words for the research setting. An example of the vocabulary checklist test presents in Table 4.

Table 4: Examples of the 6th Grade English Vocabulary Checklist Test.

Words	Known	Unknown	Meaning
Cave			
Competition			
Belong			
Wedding			
Mystery			

As for this checklist, the least and most known words were excluded from the target word list. However, all 104 words were taught in the treatment.

3.3.2 Selecting the target prefixes and suffixes

As for the word parts group, the affixes taught in the study were 17 affixes from Bauer and Nation's (1993) list of affixes, ranging from Levels 2 to 7 (see Table 5). Specifically, the affixes -s, -es, -ing -er, -or, -ly, -ist, -al, -able, -ful, -ness, - ous, -ment, -ity, re-, un-, dis- are chosen based on their regularity (i.e., how much the written or spoken form of the root or affix varies as a result of affixation) and frequency (i.e., the number of words in which the affix occurs). All affixes included derivational and inflectional affixes.

Table 5: Bauer and Nation's (1993) list of affixes

Level 1	Base words
Level 2	Base words + inflections ('lemmas') ~s (on noun or verb), ~ed/~ing (on verb), ~er (er2)/~est (on adjective), ~th (on number), and ~en (en2) on irregular verb
Level 3	Frequent and regular affixes with minimal change to the base word in speech or writing ~able/ible, ~er/~or (on verb), ~ish, ~less, ~ly, ~ness, ~th, ~y, non~, un~
Level 4	Frequent orthographically regular affixes which often impose pronunciation change *(admIre => admirAtion)* ~al (autumnal), ~ation (admiration), ~ess (fortress), ~ful (plentiful), ~ism (dogmatism), ~ist (semanticist), ~ity (solemnity), ~ize (serialize), ~ment (armament), ~ous (fibrous) in~, im~
Level 5	Less frequent but regular affixes ~age (leakage), ~al (arrival), ~ally (idiotically), ~an (American), ~ance (clearance), ~ant (consultant), ~ary (revolutionary), ~atory (confirmatory), ~dom (kingdom; officialdom), ~eer (black marketeer), ~en (wooden), ~en (widen), ~ence (emergence), ~ent (absorbent), ~ery (bakery; trickery), ~ese (Japanese; officialese), ~esque (picturesque), ~ette (usherette; roomette), ~hood (childhood), ~i (Israeli), ~ian

	(phonetician; Johnsonian), ~ite (Paisleyite; also chemical meaning), ~let (coverlet), ~ling (duckling), ~ly (leisurely), ~most (topmost), ~ory (contradictory), ~ship (studentship), ~ward (homeward), ~ways (crossways), ~wise (endwise; discussion~wise), anti~ (anti~inflation), ante~ (anteroom), arch~ (archbishop), bi~ (biplane), circum~ (circumnavigate), counter~ (counter~attack), en~ (encage; enslave), ex~ (ex~president), fore~ (forename), hyper~ (hyperactive), inter~ (inter~African, interweave), mid~ (mid~week), mis~ (misfit), neo~ (neo~colonialism), post~ (post~date), pro~ (pro~British), semi~ (semi~automatic), sub~ (subclassify; subterranean), un~ (untie; unburden).
Level 6	Frequent but irregular affixes (often with significant change to base word) ~able (inscrutable), ~ee (lessee), ~ic (spastic), ~ify (mollify), ~ion (superstition), ~ist (solipsist), ~ition (transition), ~ive (restive), ~th (breadth), ~y (calumny), pre~, re~
Level 7	Classical affixes ~ar (circular), ~ate (electorate), ~et (packet, casket), ~some (troublesome), ~ure (departure, exposure) ab~ (abnormal), ad~ (admixture), com~ (commiserate), de~ (demist), dis~ (disintegrate), ex~ (out ~ external), in~(in ~ internal), ob~ (obsequious), per~ (perspective), pro~ (in front of ~ procede), trans~ (transmogrification)

As a result, the remaining 44 target words were selected and included in five tests: vocabulary size test, form spelling test, word-spelling complement, word parts identify test and word parts test. The underlying rationale of this study was to determine the impact of task-related focus-on-forms for Thai EFL primary students in developing students' English vocabulary. A summary of the process used to select the target words is shown in Figure 1.

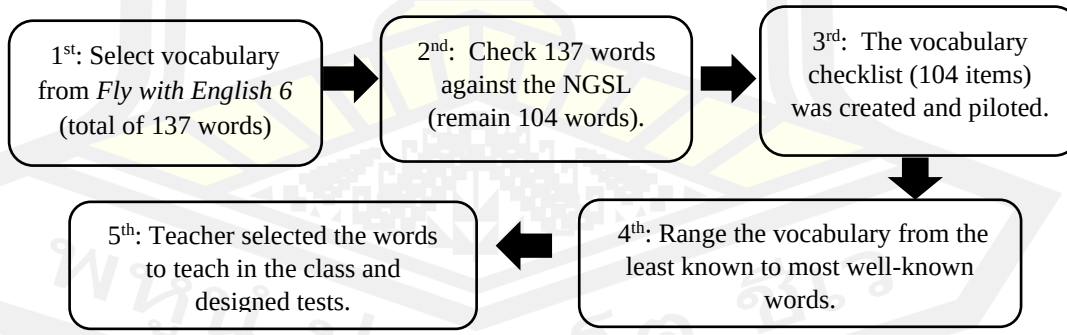


Figure 1: A summary of process used to select the target words

3.4 Research instruments

Seven research instruments were used in this study to answer the research questions. One vocabulary size test was designed to measure both L1 and L2 students' written receptive vocabulary size. Four different tests were used to measure the form aspect.

Two sets of questionnaires were used to evaluate the participants' perceptions of each group. As for receptive measurement, 30 questions for each test with 40 minutes: the form spelling test (Written form group) and word parts identify test (Word parts group) were designed and given to each group of participants after the treatment. For productive measurement, 20 questions / 40 minutes for each group were delivered to the participants: word-spelling complement (Written form group) and Word parts test (Word parts group) before the treatment.

3.4.1 Vocabulary size test

Based on Wan-a-rom (2010), this test was designed as a multiple-choice test for participants to choose the correct meaning of the word. This test was administered before the experimental process. The two groups of participants (written form and word parts groups) were first measured their vocabulary size to verify that they were at a comparable level of vocabulary size knowledge. The test was in a neutral non-defining context with four L1 choices. The test consisted of 30 items selected from the target word lists and was allotted 40 minutes. The test was to measure both L1 and L2 students' written receptive vocabulary size. One point is awarded if the participant answers correctly. Otherwise, nothing is awarded. (See Appendix A).

Table 6: The vocabulary size test

Instructions: Choose the meaning	**Answer**	**Point**
1. see: They <saw> it.		
a. ตัด	incorrect	0
b. คอย	incorrect	0
c. มองเห็น	correct	1
d. เริ่มต้น	incorrect	0

3.4.2 Form spelling test

This test, based on Laufer and Goldstein (2004) and Nontasee and Sukying (2021), was designed in a multiple-choice test for participants to choose the correct word form (i.e., correct spelling). The researcher provided four alternatives with no meaning provided. The test consisted of 30 items selected from the target word lists. The test is to check if the participants know the word forms. If the participant answers

correctly, one point is given. If not, nothing is awarded. The test was provided to the participants after the treatment. (See Appendix B).

Table 7: The form spelling test

Instructions: Choose the word with the correct spelling	**Answer**	**Point**
a. sae	incorrect	0
b. see	correct	1
c. sei	incorrect	0
d. sie	incorrect	0

3.4.3 Word-part identification test

Based on Mizumoto, Sasao, and Webb (2019), the word-part identification test was designed as a multiple-choice format to measure grammatical function knowledge (i.e., the part of speech). The participants must choose the correct part of speech from four alternatives provided (i.e., the form of noun, verb, adverb, and adjective). The test consisted of 30 items selected from the target word lists. If the participant responds correctly, one point is given. If not, zero is given. The test was delivered to the participants after the treatment. (See Appendix C).

Table 8: Word parts identification test

	Instructions: Choose the correct part of speech	**Answer**	**Point**
1.	see		
	a. noun	incorrect	0
	b. verb	correct	1
	c. adverb	incorrect	0
	d. adjective	incorrect	0

3.4.4 Word-spelling complement

This word-spelling complement evaluated the participants' spelling skills based on Laufer and Goldstein (2004) and Nontasee and Sukying (2021). The test measures the students' ability to recall a word. Twenty Thai word translations were provided with the first letter of L2 given for each question to write the correct word. If the participants answer correctly, one point is awarded. 0.5 is awarded if part of the

morpheme is correct, and zero is given if the answer is incorrect. The test was provided to the participants before beginning the treatment. (See Appendix D).

Table 9: The word-spelling complement (Nontasee & Sukying, 2021)

Instructions: Read the meaning of the following words in Thai and complete the English words with the first letter given.

	Word Questions	Answer	Correct Answer	Point
1.	นาฬิกา	W *atch*	Watch	1
2.	การอ่าน	R *ead*	Reading	0.5
3.	อย่างมีความสุข	H *appy*	Happily	0.5

3.4.5 Word-part recall test

This test was designed and developed based on Laufer & Goldstein (2004), Hayashi and Murphy (2011), and Nontasee and Sukying (2021). The test measured students' productive knowledge of word parts. The participants must provide the correct form of the given word (in the blanket) in Part A and then identify the parts of speech of the word they have written. Twenty questions were adapted from the textbook "*Fly with English six"* and prepared for the test. The total points of each question are two points. If the participants answer both part A and Part B correctly, two points are awarded. If Part A or Part B is correct, one point is given. If none is correct or unanswered, zero is provided. The test was given to the participants before the treatment. (See Appendix E).

Table 10: The word parts test (Nontasee & Sukying, 2021)

Instructions: Choose an appropriate part of speech in part B to complete the sentence in part A.

Part A	Point	Part B				Point	Total
		N.	V.	Adj.	Adv.		
He is a *manager* (manage).	1	X				1	**2**
He is a *manager* (manage).	1		X			0	**1**

The content validity of the four tests was assessed before conducting the test by three English education experts who have English teaching experiences of more than ten years.

3.4.6 Students' perceptions questionnaires

Based on Sukying (2020), two sets of the questionnaire (i.e., written form questionnaire and word parts questionnaire) were administered to each group of participants to examine their perceptions of focus on written form instructions and on word parts instruction. A 5-point Likert scale was used from strongly disagree (1) to strongly agree (5). Each questionnaire was given to each group of participants after administering the tests (See Appendix F-G). The questionnaires consisted of 12 questions determining students' perception of task-related FonFs instructions (focus on written form and focus on word parts). The participants had 30 minutes to complete this closed-end questionnaire. The participants were asked to rate their perceptions of task-related FonFs instruction as follows:

Strongly agree	5 points
Agree	4 points
Neutral	3 points
Disagree	2 points
Strongly disagree	1 point

The result of the questionnaire will be interpreted in the following range

4.50 – 5.00	=	Very high
3.50 – 4.49	=	High
2.50 – 3.49	=	Moderate
1.50 – 2.49	=	Low
1.00 – 1.49	=	Very Low

Table 11: Example of questions from the Thai version of the questionnaire.

คำชี้แจง ให้นักเรียนทำเครื่องหมาย (/) ลงในช่องที่ตรงกับความรู้สึกหรือความคิดเห็นของนักเรียน แต่ละคำถามนักเรียนสามารถตอบได้ได้เพียงคำตอบเดียวเท่านั้น

	หัวข้อ	ระดับคะแนน				
		5	4	3	2	1
1.	การเรียนโดยการเน้นรูปคำ (written form) ช่วยพัฒนาด้านคำศัพท์					
2.	การสอนโดยการเน้นรูปคำเป็นวิธีสอนที่มีประโยชน์ต่อการเรียนคำศัพท์					

3.5 Establishing the test reliability and validity

The reliability and validity of these research instruments were assessed via the Index of Item-Objective Congruence (IOC) method. Three Thai experts teaching English for

more than ten years were asked to rate the congruence between objectives and items in the test. These ratings were then used to calculate the IOC as follows:

+1 means a test item is considered congruent with the objectives

0 means a test item is considered neutral in terms of whether it is congruent with the object

-1 means a test item is deemed not congruent with the objective

The IOC (Index of Item-Objective Congruence) is then used to measure the consistency of each item.

$$IOC = \frac{\sum R}{N}$$

IOC means the index of congruence

R means the total score from the score the opinion of the experts

N means a number of experts

The reliability of these research instruments was assessed via a pilot study with 50 grade six students from another 6th-grade class from the same school with the same background. The students in the pilot study had similar characteristics, in terms of educational background, as the participants in the main study. The students in the pilot study needed to complete all four tests (the form spelling test, the word-spelling complement test, the word parts identification test and the word parts test). The results from these tests were analyzed using the Cronbach alpha coefficient. Cronbach's alpha is a measure of internal consistency or reliability, that is, how closely related a set of items are as a group.

3.5.1 Test content validity

Content validity surveys the extent to which test items assess what they purport to assess (Bachman & Palmer, 2010; Lynn, 1986). The three raters were instructed to rate the content validity of test items on a Likert scale ranging from -1 to +1 across the four tests and one questionnaire. The raters were asked to rate -1 means a test item is deemed not congruent with the objective, 0 means a test item is considered neutral in terms of whether it is congruent with the objective, and +1 means a test item is considered congruent with the objective. As shown in Table 12, the content validity analysis indicated that all means were ≥ 0.5 references to Lynn (1986), indicating that

all items in each test were considered suitable to be used. All instruments were also adjusted and improved by following the raters' suggestions.

Table 12: Test content validity (three raters)

Tests	Mean	Total of items
The form spelling test	≥ 0.5-1	30
The word-spelling complement test	≥ 0.5-1	20
The word parts identification test	≥ 0.5-1	30
The word parts test	≥ 0.5-1	20
The questionnaire for students' perception	≥ 0.5-1	12

3.5.2 Test reliability

The pilot results indicated the acceptance of the internal consistency reliability estimates (Cronbach's Alpha coefficient > 0.7; DeVellis, 2003) for the four test formats of different vocabulary knowledge aspects, indicating high results (all Cronbach's α values ≥ 0.75), as shown in Table 13.

Table 13: Test reliability

Tests	*N*	Cronbach's α
The form spelling test	30	0.93
The word-spelling complement test	30	0.88
The word parts identification test	30	0.90
The word parts test	30	0.75
The questionnaire for students' perception	30	0.79

3.5.3 Test item analysis

An analysis of test item difficulty and discrimination was used to select and reject target items to ensure that only the best available items were exploited in test instruments (Creswell, 2002; Fraenkel & Norman, 2003). This analysis identified the appropriate items for participants (see Figure 2). The acceptable item analysis rate ranges from 0.2 to 0.8 for item difficulty and from 0.2 to 1 for item discrimination.

Figure 2: Results of item difficulty and discrimination for the vocabulary tests

Items	**The form spelling test**		**The word parts identification test**	
	Difficulty	***Discrimination***	***Difficulty***	***Discrimination***
1	0.5	0.5	0.7	0.3
2	0.3	0.5	0.6	0.2
3	0.3	0.3	0.6	0.3
4	0.5	0.2	0.6	0.4
5	0.8	0.5	0.4	0.2
6	0.8	0.3	0.4	0.7
7	0.7	0.3	0.2	0.2
8	0.6	0.2	0.5	0.3
9	0.4	0.2	0.5	0.2
10	0.5	0.5	0.7	0.5
11	0.6	0.2	0.6	0.5
12	0.6	0.7	0.3	0.4
13	0.6	0.5	0.5	0.4
14	0.7	0.6	0.5	0.2
15	0.8	0.3	0.5	0.4
16	0.6	0.5	0.7	0.3
17	0.7	0.4	0.5	0.7
18	0.8	0.3	0.6	0.2
19	0.5	0.3	0.5	0.4
20	0.6	0.7	0.6	0.3
21	0.1	0.2	0.6	0.2
22	0.4	0.5	0.7	0.5
23	0.7	0.7	0.6	0.9
24	0.7	0.5	0.6	0.4
25	0.8	0.4	0.4	0.2
26	0.6	0.2	0.6	0.2
27	0.6	0.3	0.4	0.2
28	0.5	0.3	0.7	0.3
29	0.6	0.2	0.6	0.5
30	0.8	0.2	0.5	0.6
Items	**The word-spelling complement test**		**The word parts test**	
	Difficulty	***Discrimination***	***Difficulty***	***Discrimination***
1	0.2	0.3	0.2	0.2
2	0.4	0.2	0.2	0.3
3	0.8	0.3	0.8	0.2
4	0.4	0.5	0.6	0.2
5	0.3	0.5	0.7	0.2
6	0.4	0.7	0.3	0.3
7	0.5	0.4	0.2	0.3
8	0.9	0.3	0.2	0.2
9	0.6	0.7	0.2	0.2
10	0.8	0.2	0.5	0.2
11	0.8	0.3	0.2	0.2
12	0.8	0.3	0.6	0.2
13	0.6	0.3	0.6	0.2
14	0.5	0.7	0.6	0.2
15	0.2	0.2	0.7	0.2
16	0.2	0.2	0.7	0.2
17	0.2	0.3	0.5	0.2
18	0.7	0.4	0.2	0.4
19	0.2	0.2	0.6	0.2
20	0.3	0.5	0.7	0.2

The tests of receptive and productive knowledge of written form and word part, consisting of the form spelling test, the word parts identification test, the word-

spelling complement test, and the word parts test, were designed and developed based on the concept of word knowledge proposed by Nation (2013). According to Read's (2000) vocabulary testing theory, these innovative tests measure the advancement of vocabulary acquisition, initiating with the reception of a word and lasting with its production.

3.6 Data collection procedure

After obtaining the target word list, the researcher divided seventy-four EFL students into two experimental groups: The written form group and the word parts group. Both groups of participants received the vocabulary size test to be measured their size of vocabulary knowledge before the experiment. The written form group had 1,100-word families, and the word parts group had 1,200 words of vocabulary size. This process helped to control and suit participants for the research setting. The participants in the two groups were considered to have similar levels of vocabulary size knowledge.

Form spelling test and word-spelling complement were administered for the written form group. On the other hand, the word parts identification test and word-part recall test were administered for the word parts group. After the pre-testing, students received their instruction which differed from each other. The researcher began the treatment using a textbook titled "*Fly with English 6" to* teach during these 18 classes. The treatment took approximately eight weeks, and each group's class was held three days a week for 1 hour for each session (A total of 18 sessions per group). Thus, both groups had the same syllabus and coursebook. All participants took an immediate posttest and the questionnaires right after the eight-week treatment. After the participants encountered the target words, the process operated as follows:

Written form group:

After the researcher provided the reading passage, the students encountered the target words in it. The researcher repeated the spelling of the target words, and students wrote the word and repeated the spelling chorally. Later, the researcher gave standard definitions in the form of L1 explanations from accredited monolingual English dictionaries. Last, the researcher gave an example sentence from authentic English sources showing the use of the word in context.

Table 14: One example of a lesson plan for the written form group

1.	**TOPIC**	**Agree/disagree**
2.	**OBJECTIVE**	Students will be able to recognize, spell, pronounce, and understand the meaning of the words
3.	**TIME**	60 minutes
4.	**LEVEL**	Grade 6
5	**ACTIVITY**	• Asking/answering • Reading • Analyzing • A pair work
6.	**MATERIALS**	1. Reading passage
7.	**TEACHING PROCEDURES**	
	WARM-UP (5 MINS)	1. The teacher reviews *shouldn't,* and *it'll make* ..... + *adjective* 2. The teacher asks questions about what students do when they have problems.
	PRESENTATION (10 MINS)	1. Set the scene. Tell students that *Kids' club Magazine* has a page where children can write letters about their problems, and Owen West will read their letters and give them advice. 2. Get students to read the four letters and check their understanding. 3. The teacher introduces the word "agree" and its meaning and provides more examples. 4. All students are asked to repeat the spelling chorally. 5. The teacher gives L1 standard definitions and more example sentences.
	PRACTICE (10 MINS)	Students work in pairs to discuss the four letters, and whether they agree with the resolution Owen West suggested.
	PRODUCTION (25 MINS)	The teacher gives a pair of students a piece of paper to answer the question "Whether students agree on bringing mobile phones to school" Then write on the left column of the paper *Agree*. Then write on the right column of the paper *Disagree*.
	WRAP UP (10 MINS)	The teacher reviews all vocabulary they learn in the passage.
8.	**EVALUATION**	From a pair work: Scoring is as follows:

	9-10 points = Great 7-8 points = Very good 5-6 points = Good Less than 4 points = Try harder!

Figure 3 shows examples of the written form instruction applied in the classroom for the written form group.

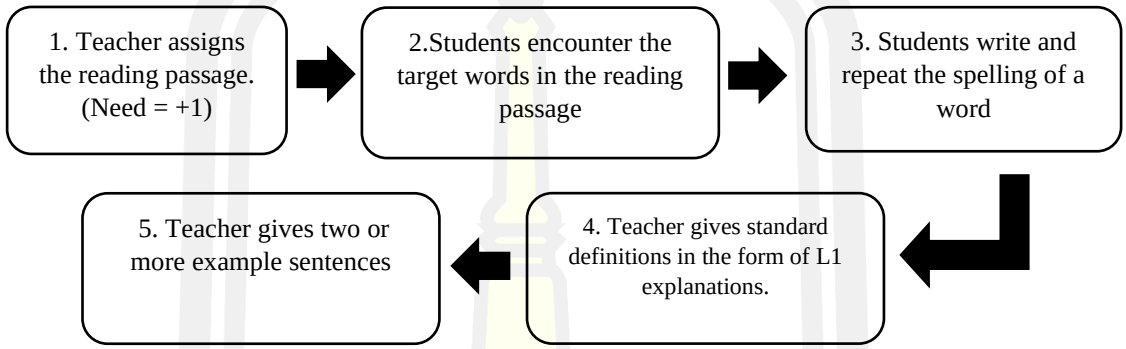


Figure 3: A summary of written form instruction used in the classroom activities

Word parts group:

After the students encountered the target words in the textbook or the reading passages provided by the researcher, the researcher repeated the spelling of the target words, and students wrote the word and repeated the spelling chorally. Later, the researcher gave standard definitions in the form of L1 explanations from accredited monolingual English dictionaries. When applicable, the researcher broke the target words into their constituent elements/affixes and reconstructed their meaning from their parts. Last, the researcher gave an example sentence from authentic English sources showing the use of the word in context.

Table 15: One example of a lesson plan for the word parts group

1.	**TOPIC**	**Agree/disagree**
2.	**OBJECTIVE**	Students will be able to recognize, spell, pronounce, and understand the meaning of the words
3.	**TIME**	60 minutes
4.	**LEVEL**	Grade 6
5	**ACTIVITY**	Asking/answering Reading Analyzing A pair work
6.	**MATERIALS**	1. Reading passage
7.	**TEACHING PROCEDURES**	
	WARM-UP (5 MINS)	1. The teacher reviews *shouldn't,* and *it'll make* ..... + *adjective*

		2. The teacher asks questions about what students do when they have problems.
	PRESENTATION (10 MINS)	1. Set the scene. Tell students that *Kids' club Magazine* has a page where children can write letters about their problems, and Owen West will read their letters and give them advice. 2. Get students to read the four letters and check their understanding. 3. The teacher introduces the word "agree" and its meaning and provides more examples. 4. All students are asked to repeat the spelling chorally. 5. The teacher gives L1 standard definitions and more example sentences. 6. The teacher introduces *Agree, disagree, agreeable, agreeably, and agreement* to the students with example sentences.
	PRACTICE (10 MINS)	Students work in pairs to discuss the four letters, and whether they agree with the resolution Owen West suggested.
	PRODUCTION (25 MINS)	The teacher gives a pair of students a piece of paper to answer the question "Whether students agree on bringing mobile phones to school" Then write on the left column of the paper Agree. Then write on the right column of the paper *Disagree*.
	WRAP UP (10 MINS)	The teacher reviews all vocabulary they learn in the passage.
8.	**EVALUATION**	From a pair work: Scoring is as follows: 9-10 points = Great 7-8 points = Very good 5-6 points = Good Less than 4 points = Try harder!

Figure 4 shows examples of the word parts instruction applied in the classroom for the word parts group.

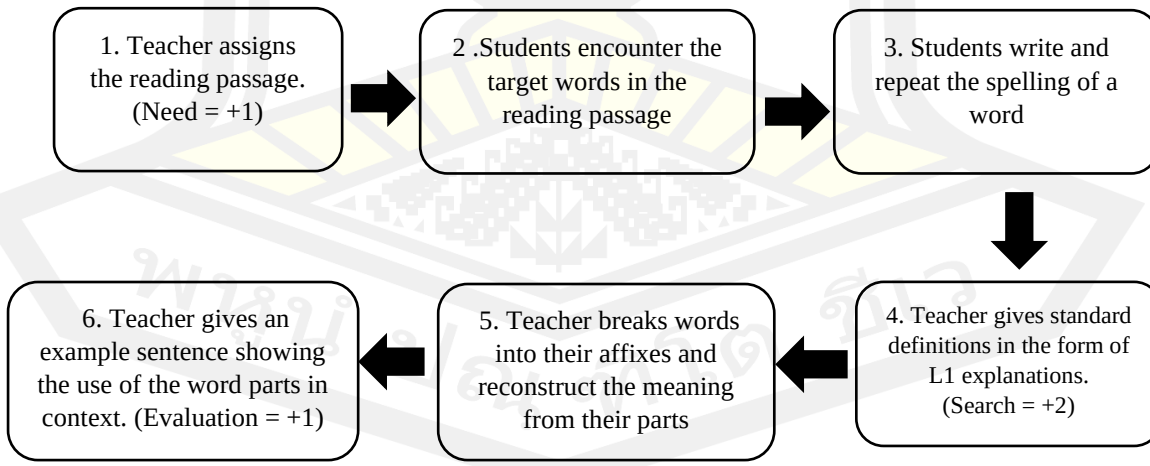


Figure 4: A summary of word parts instruction used in the classroom activities

The study's activities or treatments (i.e., the focus on written form and word parts) may be categorized as Laufer's (2005) "task-related FonFs" since the study's target

words were all introduced and practiced through the reading passages (i.e., tasks). Also, even though the students encountered the target words through reading, the teacher focused their attention on the forms of the words that needed to be acquired by repetition, conscious analysis, and explicit teaching (Long, 2009). Involvement load indexes for the written form group and the word parts group were 3 and 4 respectively. For the written form group, the need was +1 because the need was created by the teacher. Search was +2; the participants often compared different usages or meanings of the given target word because they were provided with two or more example sentences illustrating different meanings of the given target word. Thus, the total involvement load index was 3. The word parts group received the same index of need and search as in the written form group and the evaluation index was 1 because the teacher and sometimes students provided more examples of terms with the same root, prefix, and suffix as they deconstructed the target words into their component parts. Therefore, the total involvement load index for the word parts group was 4.

It is worth mentioning that time-on-task should be kept identical in these two experimental groups of the study. Though the type of tasks might be partially varied in the two groups of the study, the time used on the task should be the same as Hulstijn and Laufer (2001) stated that "time on task should be kept identical in research on task effectiveness". The participants later received the questionnaire after the receptive tests were administered. The 12 questions asked the participant's perceptions of the treatment in Thai and English.

3.7 Data analysis

The test scores were analyzed with descriptive and inferential statistics. Specifically, the comparison between pretest and posttest was examined via a dependent-samples *t*-test for the same group of participants and an independent-samples *t*-test for the different groups of participants. Correlation statistics were used to examine the relationship between the word forms and vocabulary size. Furthermore, the effect size analysis was used to examine the impact of the variables. The independent variables were task-related FonFs instructions, and the dependent variables were posttests by two different groups. These tests included receptive and productive measures of written form and word part knowledge.

Table 16: Illustration of the research procedure of the present study

Phrase		Procedure	Product
1	Pilot Study	• N = 50 • Examining reliability and validity	2 tests
2.	Data Collection	• N = 74 • Testing receptive and productive word knowledge	Test scores
3.	Data Analysis	• SPSS software - a dependent-sample t-test - an independent-samples t-test - The effect size analysis - Correlation statistics	Conclusions

3.8 Results of the pilot study

A pilot study was conducted to produce the strength of the tests for the receptive and productive tests of written form and word part knowledge (the form spelling test, the word parts identification test, the word-spelling complement test, and the word parts test). The content validity of the four tests was assessed by three English education experts who have English teaching experience for more than ten years. The 30 primary school students were asked to conduct the reliability of tests. The item difficulty and discrimination were examined together to detect the best available items for the final form of the test. The descriptive statistics in the pilot study contained the mean, standard deviation, skewness, and kurtosis. The raw total test scores were formerly converted into percentages.

Table 17: Descriptive statistics for the pilot test results (N = 30)

Tests	Mean (%)	SD	Skewness	Kurtosis
The form spelling test	59.56	22.81	-0.09	-1.15
The word-spelling complement test	48.67	22.55	0.26	-1.05
The word parts identification test	54.33	21.52	0.30	-1.29
The word parts test	45.67	14.26	0.26	0.48

The pilot results showed that the participants performed better on the receptive test of a knowledge aspect than on its productive test. The distribution of scores was tested for normality, and all skewness and kurtosis values were reported to be less than 2.0.

(Kunnan, 2013). That is, there is no violation of the statistical assumption of normal distribution (Larson-Hall, 2016).

An analysis of ANOVA illustrated a significant difference between the four tests, with a large effect size ($F = 25.370$, $p < 0.001$, $\eta^2 = 0.47$).

Table 18: Comparison of all vocabulary tests

Tests	*F*-test	Effect-size (η^2)
The form spelling test The word-spelling complement test The word parts identification test The word parts test	25.370*	0.47

*Notes: *p < 0.001, N = 30*

A paired-samples *t*-test revealed a significant difference between receptive and productive tests. The analysis showed that performance was significantly different on the receptive and productive tests of the written form knowledge (The form spelling test versus word-spelling complement test; $t = 8.49$, $p < 0.001$, $d = 0.48$), the word part knowledge (The word parts identification test versus word parts test; $t = 4.49$, $p < 0.001$, $d = 0.47$). All effect sizes were small.

Table 19: Comparison between the receptive and productive tests of written form and word part knowledge

Tests	*t*-value	Effect-size (*d*)
The form spelling test The word-spelling complement test	8.49*	0.48
The word parts identification test The word parts test	4.49*	0.47

*Notes: *p < 0.001, N = 30*

To conclude, the statistical analyses indicated that performance on the four tests differed significantly and that scores on the receptive tests were higher than scores on the productive tests for all knowledge aspects. This implies that receptive knowledge of an aspect came first, followed by productive knowledge. The effect size analysis found the strengths of the effect on the wide-ranging population.

3.9 Summary of the chapter

The current study applied a quantitative approach to assess the effect of task-related FonFs instructions on the English vocabulary development of 6th-grade students at a local primary school in Northeast of Thailand. In this research, seventy-four participants were selected using convenience sampling, and one hundred English words were selected and taught during the 24 treatment periods. The study began with the vocabulary size test, followed by the productive tests for both groups to assess participants' ability to recall a word and the knowledge of word parts, then 18 consecutive classes, and ended with receptive tests and a questionnaire to evaluate students' perceptions of the task-related FonFs instructions. Data collected from the tests and questionnaire were analyzed using mean, S.D., a dependent-sample t-test, an independent-samples t-test, correlation, and the effect size analysis. The next chapter will provide the results of the main study.

CHAPTER IV
RESULTS OF THE CURRENT STUDY

This chapter presents the results of the main study by the experimental analysis of the descriptive and inferential statistics to answer Research Questions that investigate the impact of task-related focus-on-forms (FonFs) instructions on written forms and word parts for Thai EFL primary students in developing their English vocabulary knowledge at both reception and production.

4.1 Descriptive statistics results

This section answers Research Question 1: What are the effects of task-related FonFs (written form and word parts) on the development of receptive and productive vocabulary knowledge?

Scores on the receptive and productive tests of written form and word parts knowledge at both the pretest and posttest were summarized as descriptive statistics including mean, standard deviation, skewness, and kurtosis. Table 20 demonstrates the descriptive statistics summary of two experimental groups [written form group (*n* = 37) and word parts group (*n* = 35)],

Table 20: Descriptive statistics

	Times	Tests	*M*	(%)	*SD*	Skew	Kurtosis
Written form group (*n* = 37)	Pretest	Form spelling test	15.51	51.70	5.98	-0.29	-0.66
		Word-spelling complement test	9.46	47.30	3.80	0.06	-0.58
	Posttest	Form spelling test	27	90	3.91	-1.57	1.33
		Word-spelling complement test	11.51	57.55	4.33	-0.00	-0.18
Word parts group (*n* = 35)	Pretest	Word parts identification test	13.37	44.57	5.30	0.45	-0.95
		Word parts test	9.17	45.85	4.07	2.43	5.00
	Posttest	Word parts identification test	22.54	75.13	4.39	-0.27	-0.75
		Word parts test	11.47	57.35	2.91	-0.55	0.37

As shown in Table 20, skewness and kurtosis values were shown around ± 1 and ≤ 0.5 (Bentler, 2006; Kim & Bentler, 2006), which was verified to be a normal distribution. Then, there was no violation of the statistical assumption. The participants in the two experimental groups performed better on the receptive and productive tests in the posttest than in the pretest. Specifically, the written-form-group participants had higher scores on the receptive test (form spelling test; 51.70%) than on the productive test (word-spelling complement test; 47.30%) at the pretest and higher scores on the receptive test (form spelling test; 90%) than the productive test (word-spelling complement test; 57.55%) at posttest. In contrast, the word-parts-group participants had fewer scores on the receptive test (word parts identification test; 44.57%) than on the productive test (word parts test; 45.85%) on the pretest but higher scores on the receptive test (word parts identification test; 75.13%) than the productive test (word parts test; 57.35%) at posttest.

The participants in the written form group's scores on the receptive test of written form knowledge (form spelling test) increased by 38.30% and 10.25% for the productive test of written form knowledge (word-spelling complement test) after the instructional intervention. Participants in the word parts group improved their scores by 30.56% for the receptive test of word part knowledge (word parts identification test) and 11.50% for the productive test of word part knowledge (word parts test) after the instructional intervention.

A dependent-samples *t*-test analysis was used to detect any significant difference between the tests before and after the treatment in the same group of participants. Effect size analysis was also used to calculate (*d*).

Table 21: Comparisons between pretest and posttest

	Pretest and posttest	*t*-value	Effect size (*d*)
Written form group (*n* = 37)	Form spelling test	9.65**	2.27
	Word-spelling complement test	2.18*	0.50
Word parts group (*n* = 35)	Word parts identification test	8.31**	1.88
	Word parts test	*2.55**	0.65

*Notes: **p < 0.001, *p < 0.05*

As shown in Table 21, the two times (pretest and posttest) of the receptive test of written form knowledge (form spelling test) were significantly different, indicating a large effect size (t = 9.65, p < 0.001, d = 2.27), and the two times (pretest and posttest) of the productive test of written form knowledge (word-spelling complement test) were also statistically different, revealing a medium effect size (t = 2.18, p < 0.05, d = 0.50).

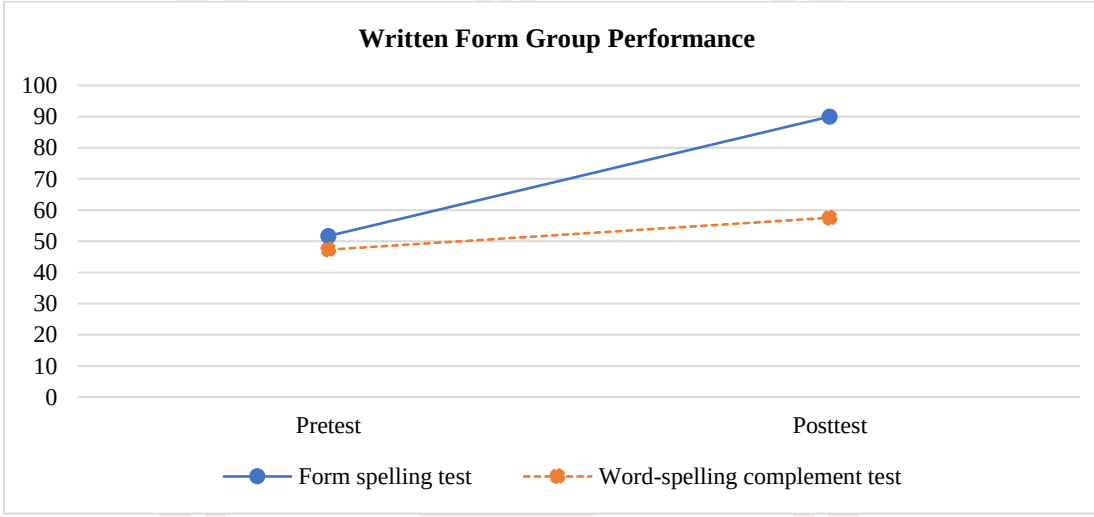


Figure 5: Written form group score performance

The receptive tests of word part knowledge (word parts identification test) at both pretest and posttest times were shown to be a significant difference and large effect size (t = 8.31, p < 0.001, d = 1.88), and its productive tests (word parts test) of both times together were statistically different with a medium effect size (t = 2.53, p < 0.05, d = 0.65). These figures are presented in Figure 6.

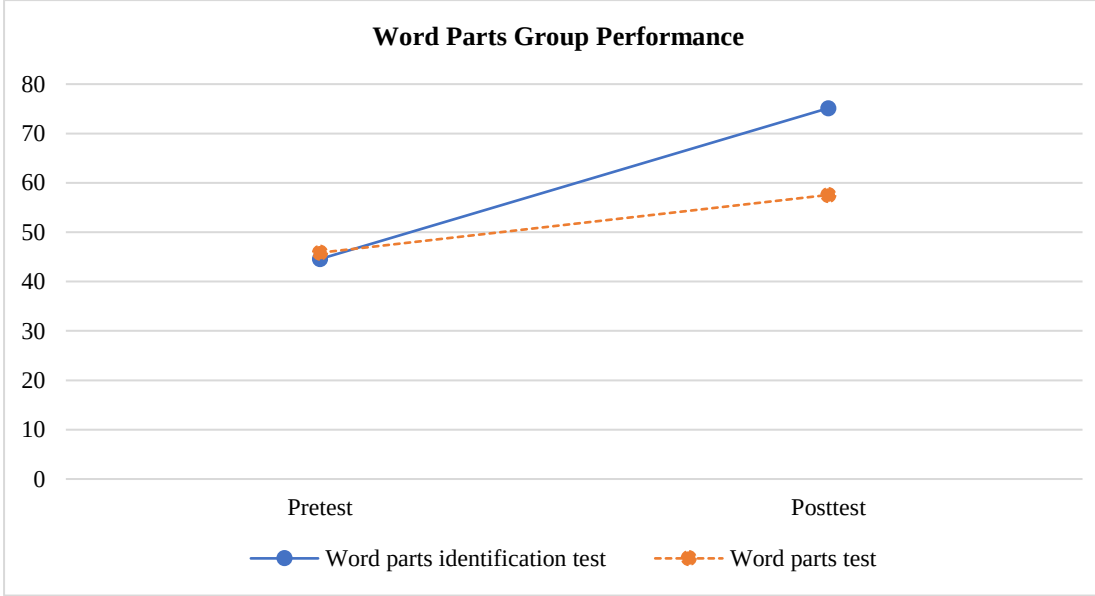


Figure 6: Word parts group score performance

An independent-samples *t*-test analysis was further used to examine any significant difference between two-time tests (pretest and posttest) of different groups of participants. The effect size was also analyzed as shown in Table 22.

Table 22: Comparisons between two experimental groups

Tests		Pretest		Posttest	
		t	*d*	*t*	*d*
Written form group	Form spelling test	1.61	0.38	4.56**	1.07
Word parts group	Word parts identification test				
Written form group	Word-spelling complement test	0.31	0.07	0.05	0.01
Word parts group	Word parts test				

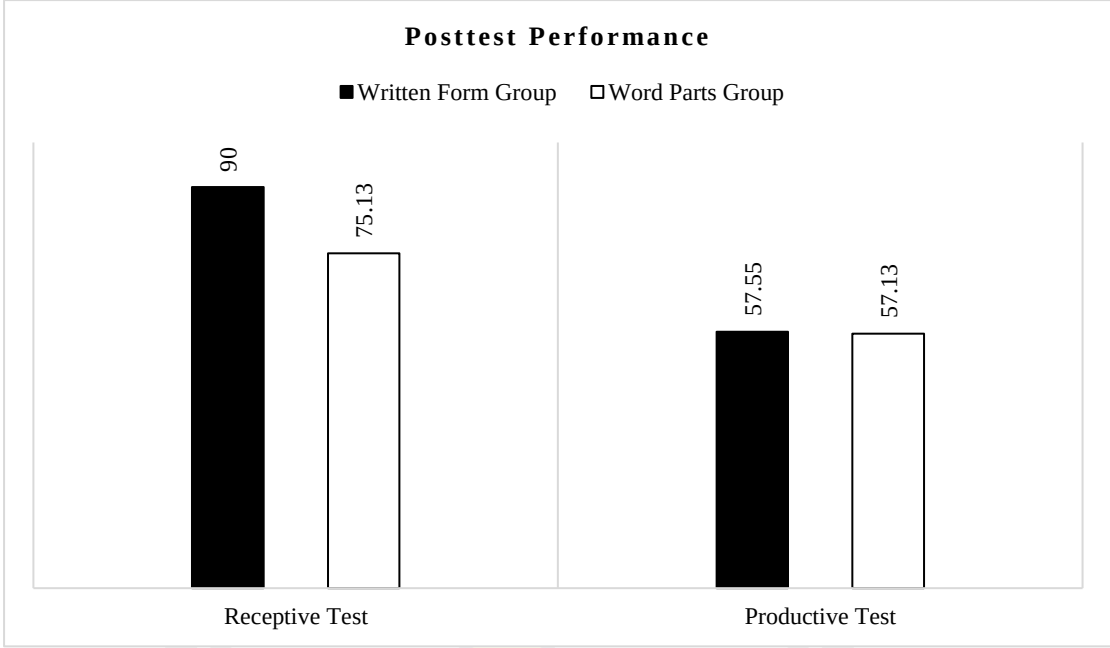


Figure 7: Posttest score between written form and word parts groups

As illustrated in Table 22, there were no statistically significant differences and effect sizes on different receptive tests between written form and word parts groups in the pretest (t = 1.61, p > 0.05, d = 0.38), different productive tests in the pretest (t = 0.31, p > 0.05, d = 0.07) and different productive tests in posttest (t = 0.05, p > 0.05, d = 0.01). Only two different receptive tests between written form and word parts groups in the posttest were significantly different, with a large effect size (t = 4.56, p < 0.001, d = 1.07). These findings suggest that the task-related FonFs instructions effectively increase Thai EFL primary school students' vocabulary knowledge.

4.2 Participants' perceptions of instructional interventions

This section answers Research Question 2: What are Thai EFL primary school participants' perceptions of task-related FonFs on vocabulary development?

As shown in Table 23, the written form instruction conducted by the participant (n = 37) was reported to improve their vocabulary and particular written form knowledge of a word with 78.69% contribution (M = 3.94, SD = 0.97) and 79% to English language reading ability (M = 3.95, SD = 0.78). The findings showed that written form instruction is valuable to vocabulary learning. Precisely, participants perceived that written form instruction improved their vocabulary where the instruction helped

develop word knowledge (i.e., written form). The items, in accordance with the mean scores, were orderly described from the highest to the lowest ranks.

Table 23: Students' perceptions towards learning by form-focused instruction (written form)

No.	Statement	Mean	SD
1	My vocabulary is improved through written form instruction	4.30	0.91
2	Written form instruction is a useful approach to vocabulary learning	4.22	0.85
3	Word form is beneficial for English language learning and teaching	4.16	0.87
4	Written form instruction helps develop word knowledge.	4.08	0.86
5	The notion of written form promotes vocabulary learning	4.03	1.04
6	Written form instruction fosters the reading ability	3.95	0.94
7	Written form instruction helps me build confidence and reduce stress in the classroom	3.95	1.13
8	Written form instruction enhances my English language ability (e.g., grammar, meaning, and use of a word)	3.95	0.78
9	Written form instruction is appropriate for learning vocabulary at my level	3.92	0.89
10	I feel learning vocabulary by written form instruction would help me recognize words faster and more easily	3.73	0.96
11	I feel comfortable when I learn through written form instruction	3.57	1.12
12	Learning by written form instruction encourages me to learn more vocabulary	3.38	1.30

The word parts instruction rated by the participants (n = 35) was together a helpful benefit for influencing their vocabulary development and specific word parts knowledge of about 84.24% (M = 4.21, SD = 0.91) and 82.80% influenced their English reading ability (M = 4.14, SD = 0.91), as shown in Table 24. The results showed that word form is beneficial for English language learning and teaching as the participants thought that their English vocabulary was improved through this word parts instruction (M = 4.40, SD = 0.85) and it would help them recognize words faster and more easily (M = 4.20, SD = 0.93). However, the only moderate score in the questionnaire suggested that the students felt comfortable when they learned by word

parts instruction. This might be because the word parts instruction required higher cognitive load to analyze the words and break them into constituent components. The items following the mean scores were also arranged from the highest to the lowest.

Table 24: Students' perceptions towards learning by form-focused instruction (word parts)

No.	Statement	Mean	SD
1	Word form is beneficial for English language learning and teaching.	4.43	0.85
2	Word parts instruction fosters reading ability.	4.40	0.88
3	My vocabulary is improved through word parts instruction.	4.40	0.85
4	Word parts instruction is a useful approach for vocabulary learning.	4.31	0.68
5	Word parts instruction is appropriate for learning vocabulary at my level.	4.31	0.90
6	Word parts instruction helps develop word knowledge.	4.26	0.89
7	The notion of word parts promotes vocabulary learning.	4.26	0.82
8	Learning vocabulary through word parts instruction would help me recognize words faster and more easily.	4.20	0.93
9	Word parts instruction enhances my English language ability (e.g., grammar, meaning, and use of a word).	4.14	0.91
10	Learning by word parts instruction encourages me to learn more vocabulary.	4.11	1.02
11	Word parts instruction helps me build confidence and reduce stress in the classroom.	3.97	1.07
12	I feel comfortable when I learn by word parts instruction.	3.74	1.15

Overall, the two instructional interventions, i.e., written form and word parts instructions, were examined to help the participants improve their vocabulary knowledge and reading ability.

4.3 Summary

The participants in the two experimental groups first had higher scores on the receptive and productive tests in the posttest than in the pretest, which revealed statistically significant differences. Second, based on the questionnaires' results, the participants in both groups perceived more knowledge comprehension via the

instructional interventions. These suggested that the instructional interventions, i.e., written form and word parts, positively benefit developing students' vocabulary. Finally, based on the results, there was no significant difference between the increased scores of written and word parts group participants. This implied that the students' current vocabulary knowledge was essential to build on other knowledge aspects of the English language.

CHAPTER V
DISCUSSION AND CONCLUSION

The previous chapter proposed the study results and answered the research questions. This chapter further explained and discussed the current results in the context of prior studies. Overall, the present study's findings revealed a deep understanding of the impact of task-related focus-on-forms (FonFs) instructions on written forms and word parts for Thai EFL primary learners in developing their English vocabulary knowledge at reception and production. Finally, this chapter proposed the implications for vocabulary learning using task-related focus-on-forms (FonFs) instructions and recommendations for future studies.

5.1 The impact of task-related focus-on-forms (FonFs) instructions on written forms and word parts among Thai EFL primary learners.

The current study investigated the effects of task-related focus-on-forms (FonFs) instruction on written forms and word parts in Thai EFL primary school children. These included two receptive knowledge tests and two productive knowledge ones. The results showed that primary school students in both cohorts significantly performed better on receptive knowledge tests than productive knowledge ones. Likewise, the paired *t*-test analysis of the results indicated that students' posttest scores were significantly higher on pretest scores. Regarding the comparison between groups, the analysis of the findings found a significant difference between the pretest knowledge scores of the two groups. Still, no significant difference was observed between posttest knowledge scores. These findings indicate the impact of task-related focus-on-forms (FonFs) instructions on vocabulary learning and development among Thai EFL primary students.

The improvement of the participant's knowledge of word form could be explained by the underlying concept of depth of processing (Craik & Lockhart, 1972). The task-related focus-on-forms (FonFs) held that words were the objects of learning but were not related to a meaning-based task. In this regard, students need a degree of involvement in processing a given word to search for and evaluate the new word against other words or their various meanings in reading comprehension tasks. To illustrate, task-related FonFs activities required students to spell and chorally repeat

the spelling or pronounce it loudly. Accordingly, explicit attention to phonological properties of L2 speech by choral repetitions may allow students to notice phonological properties of vocabulary items and eventually learn such properties, translating their meaning into faster and perhaps more accurate processing of L2 speech. Indeed, the reading task provided in the experiment here is unnecessary for accomplishing good reading comprehension but is performed for the sake of word spelling practice. The students could recognize the written form of a word from the reading, graps the roles of word parts, and put the words in the context to express the meaning. In this respect, target words are gradually learned incidentally; students effortlessly commit words to their memory because they were unaware of the forthcoming vocabulary tests. The current findings also indicated that task-related FonFs activities facilitated the visual and semantic processing of morphologically complex words. These findings align with previous studies suggesting the effect of tasks-related FonFs activities on vocabulary development (Afshar, 2020; Laufer & Girsai, 2008).

Another account for the increased knowledge of word form could be that whenever students encountered the target words while reading a passage, the teacher provided the students with its definition and explanation in their mother tongue (L1). The teacher reviewed the word and provided any additional information the teacher or the students wanted. FonFs approach, therefore, is intended to explicitly instruct vocabulary focusing on lexical form, i.e., how to deal with lexical items. Students could focus mainly on written forms and meanings. In brief, the current findings suggest that teaching words as an object of learning rather than tools for communication is effective as a teaching method. These findings are consistent with previous studies (Laufer, 2003; Hill & Laufer, 2003) that FonFs tasks contributed to effective memorization and effective vocabulary learning.

The increased word knowledge can be attributed to the Involvement Load Hypothesis (ILH) proposed by Hulstijn and Laufer (2001). The ILH comprises ‘cognitive effort’, ‘depth of processing’, ‘attention’ and ‘elaboration’. Laufer (2017b) noted that ‘involvement’ is “a motivational-cognitive construct, which could explain and predict learners’ success in the retention of the new words that they are learning” (p.6). In this

regard, the more students have exposure to new words, the higher they tend to memorize them. In addition, the degree of involvement load in the written form group is 3 (need = +1, search = +2, and evaluation = 0), while the overall involvement index for the word parts group is 4 (need = +1, search = +2, and evaluation = +1). This might be because the teacher and occasionally the students provided learners with additional examples containing the same root, prefix and suffix under focus while breaking the words into their constituent parts. In this regard, it could be argued that the participants in both groups, especially in the word parts group, performed significantly better in the vocabulary learning process (i.e., during interventions). The improved knowledge may be because students processed the target words much deeper and were more involved with the learning activity. Moreover, the better retention of the new words could be because students paid conscious attention to all aspects of word knowledge, including form, meaning and use simultaneously. These findings argue that activities with a higher involvement are better for vocabulary learning and retention than those with less involvement.

The study results indicated that participants in the written form group had a greater improvement in the written forms of a word measured by a receptive knowledge test than their counterparts in the word parts group. This phenomenon could be explained for a number of reasons. First, the students in the written form group had opportunities to reiterate, spell, and learn the L1 standard definitions, along with the sentence examples where students understood how to use the words in sentences. Therefore, the more students encounter the words, the higher they can memorize them. Moreover, age seems to be another factor in this phenomenon; the students at the age of 12 seem to better retrieve and recall spellings than analyze words. Finally, the receptive knowledge test appears to be easy with the multiple-choice format for the students to answer. This might be elaborated by cognitive effort. That is, the receptive knowledge test, measured by a multiple-choice format, requires a lighter cognitive processing demand than the productive knowledge test, measured by a gap-filling passage or a sentence-completion format. These findings resulted in greater recognition of a word's written forms.

In addition, the current study found that word parts participants had a higher increase in productive knowledge of a word. Two reasons could elaborate such a result. First, while performing the same procedures as the written form group, students in the word parts group had more opportunities to learn the affixes and reconstruct the meanings from their parts or constituent elements (i.e., prefixes and suffixes). These extra tasks have led students to retrieve the word more frequently. This also is consistent with earlier literature that the instructional method that integrates vocabulary interventions with other aspects of vocabulary learning benefits learners of English (Bowers & Kirby, 2010; Colovic-Markovic, 2017; Kirby, Bowers, & Deacon, 2009; Nation, 2013) and mainly contribute to their vocabulary knowledge acquisition (Bubchaiya & Sukying, 2022; Magnussen & Sukying, 2021; Sukying, 2020; Yowaboot & Sukying, 2022). Furthermore, the written form group's productive test seems to be a little more complicated than the word parts group's. When comparing the two productive tests of both groups, the written form group's only provided the L1 definition and the first English letter for each question while providing the whole word for the word parts participants to decide on the correct part of speech (noun, verb, adverb, or adjective) and fill in the blank. This guideline helped increase the more considerable improvement of the productive knowledge of the word parts group.

From the overall performance, the written form instructions, which focus mainly on meaning and use aspects, tended to perform significantly better than the word parts aspects, which attend to meaning, use, and word parts aspects for a number of reasons. First, the results of the study proved that the participants in the written form group improved their scores by 38.30% for the receptive test and 10.25% for the productive test of written form knowledge after the instructional interventions, while the receptive test increased by 30.56% and 11.50% for the productive test of word parts knowledge. These results are corroborated by the findings of Laufer and Girsai (2008), who found the superiority of various kinds of form-focused vocabulary instruction, especially FonFs activities, over other 'non-focus-on-form' methods. Secondly, the written form instructions seem to be a more suitable teaching method for primary school learners as they could recognize and retain words rather than analyze them. Primary school learners might not analyze words as effectively as those with a higher education level. Lastly, during the testing, the participants might be

accustomed to remembering words rather than analyzing and breaking words into their useful affixes. Hence, the participants in the written form group performed better than those from the word parts group.

From a theoretical perspective, the receptive and productive knowledge development continuum could be explained by the degrees of learning in context (Sukying, 2018); for example, L2 contexts and the developmental continuum of learning (Nation, 2013). More precisely, the receptive knowledge tests may have imposed a lighter processing demand on Thai EFL primary school students than the productive knowledge measures. The gap between the performance on receptive and productive measures may indicate that primary school students need further scaffolding strategies by English language facilitators and teachers to develop word knowledge aspects, thus increasing Thai primary school students' knowledge of word spellings and parts. It is also possible that receptive knowledge of vocabulary represents an initial stage in word learning in which such knowledge is not fully developed for productive knowledge and being able to use it in context. This provides empirical evidence to support previous studies that word knowledge consists of varying degrees and incremental learning continua (Nation, 2013; Rangsawoot & Sukying, 2023; Sukying, 2017, 2018; Sukying & Matwangsaeng, 2022; Sukying & Nontasee, 2022).

The test scores were analyzed with descriptive and inferential statistics. The analytical results showed significant differences between the pretest and posttest groups. The participants' posttest scores were increasingly higher than their pretest scores. Specifically, based on their posttest scores with the interventions of the task-related FonFs instructions, the written form group participants' knowledge was higher than the word parts group participants' knowledge but not significantly different.

Receptive tests at both written form and word parts groups had higher scores than the productive tests and both the pretest and posttest. The current findings indicate that receptive knowledge of any aspect may be easier acquired than productive knowledge. These findings are congruent with earlier studies (e.g., González-Fernández & Schmitt, 2019; Hayashi & Murphy, 2011; Laufer & Goldstein, 2004; Nontasee & Sukying, 2020, 2021; Rangsawoot & Sukying, 2023; Sukying & Nontasee, 2022; Zhong, 2018). The current results suggest that receptive knowledge

of an aspect is first known by learners and built on its productive knowledge. That is, the more learners understand vocabulary words, the more they recall; therefore, learners with high input, such as instructional interventions, enhance English vocabulary knowledge development (e.g., Sukying, 2020; Webb, 2005, 2009). Specifically, if learners' knowledge, such as vocabulary, is increased, it will further help them largen their use of vocabulary and English.

In summary, the results of the current study indicate the significant role of the FonFs instruction. This argument is based on a combination of different aspects of word knowledge incorporated with vocabulary use (e.g., reception and production), word retrieval speed (e.g., types of tasks/exercises) and strategic competence. In-depth knowledge of a word, especially with a high learning burden, often requires rich instruction, which involves going beyond the demands of a particular context. Enlarging learners' vocabulary size is plausible, with numerous exposures that need to be introduced regardless of the text. Productive knowledge, which is more difficult to learn than receptive knowledge, needs a particularly efficient rehearsal regime and qualitatively demanding tasks and exercises in which the word to be learned is decontextualized to receive the utmost prominence. Word retrieval speed requires development by fluency activities (e.g., repeated text reading, repeated talk recordings, and sentence completion). These activities do not focus on communicative content but on retrieval tasks *per se*. Finally, developing strategic competence involves FonFs since, in practicing strategic competence, the searched word is not a tool for completing another task but the task *per se*. Overall, the current study provided evidence from task-related FonFs instruction, which is vital in increasing the student's vocabulary knowledge.

5.2 Participants' perceptions of instructional interventions

In response to Research Question 2: What are Thai EFL primary school participants' perceptions of task-related FonFs on vocabulary development? Two sets of the questionnaire (i.e., written form questionnaire and word parts questionnaire) were developed based on Sukying (2020) and administered to each group of participants to examine their perceptions of focus on written form instruction and word parts instruction. These questionnaires were given to each group after the treatment. A 5-

point Likert scale was used from strongly disagree (1) to strongly agree (5). The questionnaires consist of 12 questions determining learners' perception of task-related FonFs instructions (focus on written form and focus on word parts). The participants received 30 minutes to complete this closed-end questionnaire.

The questionnaires used to examine learners' perceptions towards learning by form-focused instructions (reception and production of written forms and word parts) were reported positively useful, and participants perceived practical benefits for vocabulary development, specifically in the present study knowledge of written forms and word parts, both receptively and productively. Based on the questionnaire's highest percentage, 78.69% of the participants thought that written form instruction helps develop vocabulary knowledge especially in the written form aspect and 79% of them stated that the instruction is a helpful approach to vocabulary learning. At the same time, 84.24% of the word parts participants perceived that word form influenced their vocabulary development and specific word parts knowledge. 82.8% of them also reported that the instruction influenced their reading ablity that they could recognize the words faster and more easily with the knowledge of the words parts. However, the only moderate score in questionnaire was from the word parts questionnaire. Only 74.8% of the participants felt comfortable when learning by word parts instructions. This might be because the word parts instruction required higher cognitive load to analyze the words and deconstruct words into smaller componets. As implicational, these task-related FonFs instructions (focus on written form and focus on word parts) are valuable for English language learners. They mainly influence learners' vocabulary acquisition, i.e., written form and word parts knowledge, and their English language reading ability. Overall, the two instructional interventions, i.e., written form and word parts instructions, were scrutinized to help the participants improve their vocabulary and English reading ability.

5.3 Conclusion

The present study provides evidence for vocabulary learning and development in an EFL context. In line with previous findings (e.g., Afshar, 2020; Bubchaiya & Sukying, 2022; Laufer, 2017; Sukying, 2018, 2020), the study shows the positive effects of task-related FonFs (i.e., focus on written form and word parts) on Thai EFL

students' vocabulary development. Specifically, the emphasis of written form (i.e., spelling) was explicitly elaborated with example sentences by the teacher and followed by the students' choral (reading) and individual iterations significantly worked. In the other group, besides what was done in the earlier group, the participants also focused on word parts as another property of word form. The results indicated that both groups significantly increased their knowledge of word form and word parts. The results suggest that task-related FonFs activities are essential for developing young learners' word knowledge in both receptive and productive aspects. In brief, the findings indicate that task-related FonFs (i.e., focusing on written word form and word parts) could involve deeper processing, yield higher learning gains, and better retention in English vocabulary learning and development, at least in the Thai EFL context. In addition, the current study also indicated that students had favorable beliefs about task-related FonFs activities. Indeed, the FonFs instruction appealed to both cohorts' positive perceptions and drew greater attention to vocabulary learning. Overall, this study argued that task-related FonFs conditions help promote vocabulary learning and development in an EFL context.

5.4 Implications

The current study might yield several important implications. From a theoretical standpoint, the present study aligns with previous studies (e.g., Afshar, 2020; Hazrat & Read, 2021; Laufer, 2017), indicating the positive effects of task-related FonFs instruction on vocabulary learning and development. The current findings provide evidence for extending the positive effects of form-focused instruction beyond the domain of memory for known words into the domain of new words during vocabulary learning. Indeed, new word learning is oriented more toward creating new word forms, deconstructing word parts, and identifying the links between the word forms and their grammatical functions. In other words, deliberate attention to chorally repeat the target words strengthens the formal representation of the word, connecting the known words and new word forms in a learning activity. The involvement of the syntactic representation for the target words might be essential for attaining the positive effect of FonFs instruction on vocabulary learning and development. Therefore, the current study suggests that the positive impact of FonFs instruction

may rest heavily on the act of repetition, strengthening the link between orthographic (spelling) and syntactic representations of a word.

From a pedagogical perspective, one implication of the current findings is that it can be helpful to provide students with opportunities to attempt to create new word forms on their own during different vocabulary learning activities. For instance, if a teacher uses a reading passage to present new words, the teacher might select an interesting and familiar topic so that an individual learner has an engagement and attempts to come up with new words on their own instead of being presented with the new-word forms either in the spoken or written form right away. Moreover, learners should be allowed to double-check or re-reiterate the target words they provide before moving on to other words. Information about the positive effects of creative use in vocabulary learning could be beneficial when designing these and other learning activities. Nation (2013) also argues that these activities can facilitate word recognition and recall. Activities of this nature continue to gain empirical support from new demonstrations of the positive effects of providing opportunities for word recognition and recall during vocabulary learning, especially in an EFL context. In addition to emphasizing word meaning and use, learners should concentrate more on spelling and pronunciation of to-be-learned words and deconstructing the new words into smaller components to increase their vocabulary knowledge receptively and productively.

5.5 Limitations and recommendations

The present study limits the vocabulary knowledge construct proposed by Nation (2013) by examining only written form and word part knowledge. It should be better to explore the entirety of the vocabulary knowledge construct of knowing a word, such as form, meaning, and use. This will help to better understand the construct of vocabulary knowledge and its acquisition and development. Together, it will be better to examine the relationship to other aspects, i.e., vocabulary size and depth, or English abilities, i.e., writing, reading, speaking, and listening. This aims to provide a vital description of the related conceptualization of vocabulary knowledge to other English skills. Plus, this quasi-experimental research indicates only the effectiveness of the task-related FonFs approach. It does not compare to other control groups to detect any differences between conventional English instructions. Another limitation is that the

researcher did not run the Rasch analysis to find the test difficulty, which led to incredibly high scores on receptive tests of both written form knowledge and word parts knowledge. Although explicit vocabulary instruction was not the central goal of the current study, focusing on written form and word parts was done through the teacher's explicit instruction. Future research may better try the active learning methodology or other teaching methodologies. It likely helps to prove and indicate the effectiveness of this task-related FonFs approach in considering the instruction of vocabulary knowledge and English language in the pedagogy.

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APPENDIXS

Appendix A: The Vocabulary size test

Instructions: Please choose the correct meaning.

Example:

1. joyful: He was joyfully planning for his new life.

a. มีความสุข b. ความสุข

☒ อย่างมีความสุข d. สุข

1. people: <people> are waiting.

a. คน b. ผู้คน

c. เด็กๆ d. ผู้ใหญ่

2. because: I did not do homework <because> I forgot.

a. ดังนั้น b. เพราะว่า

c. เพราะฉะนั้น d. ถึงแม้ว่า

3. thing: This <thing> is called a table.

a. ความคิด b. สิ่งของ

c. คำพูด d. งานที่ต้องทำ

4. mean: I didn’t <mean> to hurt you.

a. วิธีการ b. หมายความว่า

c. มีเจตนา d. มีความสำคัญต่อ

5. last: This battery won’t <last>.

a. สุดท้าย b. ในที่สุด

c. คงอยู่ d. ล่าสุด

6. child: This <child> is a boy.

a. เด็ก b. ที่เหมือนเด็ก

c. วัยเด็ก d. ระยะต้น

7. through: I walk <through> the park.

a. ผ่านไปตาม b. ด้วยวิธี

c. ปราศจากการหยุด d. เนื่องจาก

8. change: I have <changed> my mind.

a. การแทนที่ b. ของแปลกใหม่

c. เปลี่ยน d. เงินทอน

9. problem: You can solve the <problem> today.

a. คำถาม b. ปัญหา

c. ที่ยากจะแก้ไข d. การแก้ปัญหา

10. great: It would be <great> if we could meet again!

a. สำคัญ b. ยาวนาน

c. ดีเยี่ยม d. ดีมาก

11. important: The <important> thing in life is to study.

a. สำคัญ b. โดยสำคัญ

c. ใหญ่โต d. เด่น

12. suggest: I <suggest> you take the advice.

a. ร่องรอย b. ข้อเสนอ

c. แนะนำ d. ทำให้นึกถึง

13. without: He likes coffee <without> sugar.

a. ภายนอก b. ยกเว้น

c. โดยไม่มี d. ข้างนอก

14. public: Actors are <public> figures.

a. หน่วยงานของรัฐบาล b. ที่เกี่ยวข้องกับส่วนรวม

c. มหาชน d. โดยประชาชน

15. consider: We are <considering> you for the job.

a. พิจารณา b. คิดว่าเป็น

c. สำคัญ d. ความคิดเห็นใจผู้อื่น

16. winter: During <winter>, I sleep with two blankets.

a. เกี่ยวกับฤดูหนาว b. ฤดูหนาว

c. ที่สวมเสื้อหนาว d. มีลักษณะของฤดูหนาว

17. dangerous: The situation could get quite <dangerous>.

a. ซึ่งเป็นอันตราย b. อย่างเป็นอันตราย

c. อันตราย d. อย่างไม่อันตราย

18. climb: Monkeys usually <climb> trees.

a. คนปีน b. ค่อยๆเพิ่มขึ้น

c. ปีน d. ลอยขึ้น

19. manner: Some people have no <manners>.

a. รูปแบบ b. มารยาทสังคม

c. ซึ่งมีมารยาท d. สุภาพ

20. hire: I <hire> you to be my employee.

a. การจ้าง b. จ้าง

c. ซึ่งว่าจ้าง d. ซึ่งถูกจ้าง

21. friendly: He was very <friendly> to everyone.

a. อย่างเป็นมิตร b. เพื่อน

c. เป็นมิตร d. ให้ความช่วยเหลือ

22. threat: Don’t <threaten> me! I will not do it.

a. เป็นลางร้าย b. ซึ่งคุกคาม

c. เตือนภัย d. ข่มขู่

23. location: This is the <location> for my new house.

a. การหาที่ตั้ง b. ตำแหน่งที่ตั้ง

c. สถานที่ถ่ายทำ d.การกำหนดที่ตั้ง

24. comfortable: She feels <comfortable> staying in this hotel room.

a. ไม่สบายใจ b. เพียงพอ

c. มั่งคั่ง d. สะดวกสบาย

25. museum: The is the new <museum>.

a. โรงเรียน b. พิพิธภัณฑ์

c. สนามกีฬา d. งานแสดง

26. occasion: This is a place people come for a special <occasion>.

a. จังหวะ b. เป็นเหตุให้

c. โอกาส d. บางครั้ง

27. compete: She <competed> against students from around the country.

a. แข่งขัน b. ที่มีความสามารถ

c. แข่งขันเพื่อ d. ต่อสู้กับ

28. medicine: He forgot to take his <medicine>.

a. แพทยศาสตร์ b. ยารักษาโรค

c. การรักษาโรค d. ยาน้ำ

29. repair: He explained about the tire <repair> kit.

a. ซ่อมแซม b. การซ่อมแซม

c. ช่างซ่อม d. การแก้ไข

30. abroad: They are not going <abroad> for their holiday this year.

a. ในต่างชาติ b. ข้างนอก

c. นอกบ้าน d. ต่างประเทศ

Appendix B: The form spelling test

Instructions: Please select the word with the correct spelling.

Examples:

1. __c___ a. happyness b. hapiness c. happiness d. happeness

2. __c___ a. carefuly b. cariffuly c. carefully d. carefully

1.		a. competition	b. compitition	c. conpetition	d. conpitition
2.		a. helty	b. healty	c. healthy	d. helthy
3.		a. resturant	b. restaurant	c. restuarant	d. restuerant
4.		a. tate	b. tast	c. taste	d. tasde
5.		a. smel	b. smen	c. smeo	d. smell
6.		a. think	b. tink	c. thint	d. thind
7.		a. graet	b. geat	c. great	d. gaet
8.		a. sound	b. sond	c. sonud	d. sounb
9.		a. unifrom	b. umiform	c. uniform	d. unifrom
10.		a. thin	b. tim	c. thhin	d. thinn
11.		a. teesh	b. teech	c. teach	d. teesh
12.		a. enjoi	b. njoy	c. enpoy	d. enjoy
13.		a. feal	b. feol	c. pheel	d. feel
14.		a. rifee	b. live	c. livee	d. rivee
15.		a. for	b. bor	c. hor	d. sor
16.		a. kittchen	b. kitshen	c. kitchen	d. kittshen
17.		a. hong	b. ronk	c. lonk	d. long
18.		a. bove	b. move	c. mobe	d. nove
19.		a. somtime	b. sometimes	c. somtimes	d. sometine
20.		a. university	b. umiversity	c. uniwersity	d. umiversity
21.		a. adwenjure	b. advenjure	c. adwenture	d. adventure
22.		a. coutry	b. cuntry	c. country	d. coantry

23.		a. maary	b. marry	c. marie	d. marrie
24.		a. brather	b. broter	c. brother	d. brater
25.		a. glass	b. glas	c. graess	d. graeas
26.		a. favorite	b. faworite	c. favolite	d. faworlite
27.		a. haliday	b. horiday	c. holiday	d. horriday
28.		a. neighbor	b. neghbor	c. naighbor	d. neihbor
29.		a. ploblem	b. problem	c. probem	d. plobem
30.		a. bligt	b. briht	c. bright	d. bliht

Appendix C: The word parts identification test

Instructions: Please choose the correct part of speech of the given words.
Examples:

	Noun	Verb	Adjective	Adverb
1. sight	✓			
2. ignore		✓		

	Noun	Verb	Adjective	Adverb
1. competition				
2. difficult				
3. actor				
4. singer				
5. bright				
6. mirror				
7. problem				
8. neighbor				
9. smelly				
10. glass				
11. brother				
12. marry				
13. country				
14. adventure				
15. holiday				
16. healthily				
17. restaurant				
18. tasty				
19. think				
20. greatly				
21. teaching				
22. enjoyably				
23. kitchen				

	Noun	Verb	Adjective	Adverb
24. lively				
25. favor				
26. feel				
27. sound				
28. move				
29. long				
30. uniform				

Appendix D: The word-spelling complement

Instructions: Read the meaning of the following words in Thai and complete the English words with the first letter given.

Examples:

Thai	English
1. อย่างมีความสุข	**h**appily
2. โกรธ	**a**ngry

Thai	English
1. การแข่งขัน	**c**
2. รสชาติ	**t**
3. ดมกลิ่น	**s**
4. คิด	**t**
5. ดีเยี่ยม	**g**
6. เสียง	**s**
7. เครื่องแบบ	**u**
8. ผอม บาง	**t**
9. สอน	**t**
10. เพลิดเพลิน	**e**
11. อาศัยอยู่	**l**
12. ยาว	**l**
13. เคลื่อนย้าย	**m**
14. บางครั้ง	**s**
15. การผจญภัย	**a**
16. มหาวิทยาลัย	**u**

Thai	English
17. ประเทศ	**c**
18. วันหยุด	**h**
19. ฉูดฉาด สีเจิดจ้า	**b**
20. ยาก	**D**

Appendix E: The word parts test

Instructions: Please write the correct derivative form of the given word and identify part of speech.

Examples:

	N.	V.	Adv.	Adj.
1. He is ……**angry**….... . (anger)				✓
2. They live …**happily**…….. . (happy)			✓	

	N.	V.	Adv.	Adj.
1. She is a very ……. player. (compete)				
2. The sun shines ……..…….. . (bright)				
3. He ……..…… in the choir. (sing)				
4. The students asked lots of ……..……..... questions. (difficult)				
5. July 4th is a national ……..… in the U.S. (holiday)				
6. She tried to explain her ……..……. . (act)				
7. He enjoy ……..….. his students. (teach)				
8. They spent an …… afternoon at the park. (enjoy)				
9. Her eyes were bright and ……..…….. (live)				
10. Dogs have a keen sense of …….. (smell)				
11. I don't want to eat ……..… . (health)				
12. She likes the …….. of apples and cinnamon. (taste)				
13. He likes the ……. of the sun on his face. (feel)				

	N.	V.	Adv.	Adj.
14. We talked all night …….…… .(long)				
15. He was afraid to make a ……..……. . (move)				
16. I asked her to …….…….. me. (marry)				
17. The teacher clearly…… you. (favor)				
18. She gave me an …… look. (anger)				
19. I laughed so hard I almost …….…… myself. (wet)				
20. The movie will …….. you on the edge of your seat. (keep)				

Appendix F: Questionnaire (Written form group)

Direction:

1. The purpose of this questionnaire is to explore students' perceptions towards learning by written form-focused instruction in acquiring vocabulary knowledge.

2. The survey has 2 parts: personal information and perceptions towards learning by written form-focused instruction.

3. The date obtained will be useful for improving the teaching and learning, and there is no effect on your grades.

4. The information you provide will be anonymous and confidential. It will be only used for research purposes and potential publications.

Part 1: Personal Information

Instructions: Answer the following questions about your personal information by putting the

(✓) in the bracket before filling in the information.

1. Gender ( ) Male ( ) Female

Part 2: Students' perceptions towards learning by form-focused instruction (written form)

Directions: Please answer by checking (✓) sincerely according to your opinions.

5 = Strongly agree 4 = Agree 3 = Neutral

2 = Disagree 1= Strongly disagree

	Items	**Score Level**				
		5	**4**	**3**	**2**	**1**
1.	Written form instruction helps develop word knowledge.					
2.	Written form instruction is a useful approach for vocabulary learning					
3.	Word form is beneficial for English language learning and teaching					
4.	Written form instruction is appropriate for learning vocabulary at my level					
5.	Written form instruction fosters reading ability					
6.	My vocabulary is improved through written form instruction					
7.	The notion of written form promotes vocabulary learning					

	Items	Score Level				
		5	4	3	2	1
8.	Written form instruction helps me build confidence and reduce stress in the classroom					
9.	I feel learning vocabulary by written form instruction would help me recognize words faster and more easily					
10.	I feel comfortable when I learn by written form instruction					
11.	Learning by written form instruction encourages me to learn more vocabulary					
12.	Written form instruction enhances my English language ability (e.g. grammar, meaning and use of a word)					

Appendix G: Questionnaire (Thai version)

แบบสอบถาม

ทัศนคติของนักเรียนต่อการสอนแบบเน้นงานตามแบบฟอร์ม (รูปคำ)

ส่วนที่ 1 : ข้อมูลส่วนตัว

คำชี้แจง: โปรดทำเครื่องหมาย ✓ หน้าข้อความที่ตรงกับข้อมูลของผู้ตอบแบบสอบถาม

1. เพศ ( ) ชาย ( ) หญิง

ส่วนที่ 2: ทัศนคติของนักเรียนต่อการสอนแบบเน้นงานตามแบบฟอร์ม

คำชี้แจง โปรดทำเครื่องหมาย ✓ ในช่องระดับความคิดเห็นของท่าน

5 = เห็นด้วยมากที่สุด 4 = เห็นด้วย 3 = เห็นด้วยปานกลาง

2 = ไม่เห็นด้วย 1 = ไม่เห็นด้วยมากที่สุด

	หัวข้อ	ระดับคะแนน				
		5	4	3	2	1
1.	การเรียนโดยการเน้นรูปคำ (written form) ช่วยพัฒนาด้านคำศัพท์					
2.	การสอนโดยการเน้นรูปคำเป็นวิธีสอนที่มีประโยชน์ต่อการเรียนคำศัพท์					
3.	ลักษณะของคำ (word form) มีประโยชน์ต่อการเรียนการสอนภาษาอังกฤษ					
4.	การสอนโดยการเน้นรูปคำ (written form)เหมาะสำหรับการเรียนรู้คำศัพท์ในระดับของฉัน					
5.	การสอนโดยการเน้นรูปคำ (written form) ช่วยส่งเสริมทักษะการอ่าน					
6.	การเรียนรู้คำศัพท์โดยการเน้นรูปคำ (written form) ช่วยเพิ่มความรู้ด้านคำศัพท์ของฉัน					
7.	ความเข้าใจในเรื่องของรูปคำ (written form) ช่วยส่งเสริมการเรียนคำศัพท์					
8.	การเรียนโดยการเน้นรูปคำ (written form) เพิ่มความมั่นใจและลดความเครียดในห้องเรียน					

	หัวข้อ	ระดับคะแนน				
		5	4	3	2	1
9.	ฉันรู้สึกว่าการเรียนรู้คำศัพท์โดยการเน้นรูปคำ (written form) จะช่วยให้ฉันสังเกตคำศัพท์ได้เร็วขึ้นและง่ายขึ้น					
10.	ฉันรู้สึกสบายใจเวลาเรียนโดยการสอนเน้นรูปคำ (written form)					
11.	การเรียนโดยการเน้นรูปคำ (written form) กระตุ้นให้ฉันอยากเรียนคำศัพท์มากขึ้น					
12.	การเรียนโดยการเน้นรูปคำ (written form) ยกระดับทักษะทางด้านภาษาอังกฤษของฉัน (ไวยากรณ์ ความหมายและการใช้คำ)					

Appendix H: Questionnaire (Word Parts)

Direction:

1. The purpose of this questionnaire is to explore students' perceptions towards learning by word parts instruction in acquiring vocabulary knowledge.

2. The survey has 2 parts: personal information and perceptions towards learning by word parts instruction.

3. The date obtained will be useful for improving the teaching and learning, and there is no effect on your grades.

4. The information you provide will be anonymous and confidential. It will be only used for research purposes and potential publications.

Part 1: Personal Information

Instructions: Answer the following questions about your personal information by putting the

(✓) in the bracket before filling in the information.

1. Gender ( ) Male ( ) Female

Part 2: Students' perceptions towards learning by form-focused instruction (word parts)

Directions: Please answer by checking (✓) sincerely according to your opinions.

5 = Strongly agree 4 = Agree 3 = Neutral

2 = Disagree 1= Strongly disagree

	Items	Score Level				
		5	4	3	2	1
1.	Word parts instruction helps develop word knowledge.					
2.	Word parts instruction is a useful approach for vocabulary learning					
3.	Word form is beneficial for English language learning and teaching					
4.	Word parts instruction is appropriate for learning vocabulary at my level					
5.	Word parts instruction fosters reading ability					
6.	My vocabulary is improved through word parts instruction					
7.	The notion of word parts promotes vocabulary learning					
8.	Word parts instruction helps me build confidence and reduce stress in the classroom					

	Items	Score Level				
		5	4	3	2	1
9.	I feel learning vocabulary by word parts instruction would help me recognize words faster and more easily					
10.	I feel comfortable when I learn by word parts instruction					
11.	Learning by word parts instruction encourages me to learn more vocabulary					
12.	Word parts instruction enhances my English language ability (e.g., grammar, meaning and use of a word)					

Appendix I: Questionnaire (Thai version)

แบบสอบถาม

ทัศนคติของนักเรียนต่อการสอนแบบเน้นงานตามแบบฟอร์ม (การแยกหน่วยคำ)

ส่วนที่ 1 : ข้อมูลส่วนตัว

คำชี้แจง: โปรดทำเครื่องหมาย ✓ หน้าข้อความที่ตรงกับข้อมูลของผู้ตอบแบบสอบถาม

1. เพศ ( ) ชาย ( ) หญิง

ส่วนที่ 2: ทัศนคติของนักเรียนต่อการสอนแบบเน้นงานตามแบบฟอร์ม

คำชี้แจง โปรดทำเครื่องหมาย ✓ ในช่องระดับความคิดเห็นของท่าน

5 = เห็นด้วยมากที่สุด 4 = เห็นด้วย 3 = เห็นด้วยปานกลาง

2 = ไม่เห็นด้วย 1 = ไม่เห็นด้วยมากที่สุด

	หัวข้อ	**ระดับคะแนน**				
		5	**4**	**3**	**2**	**1**
1.	การเรียนโดยการแยกหน่วยคำ (word parts) ช่วยพัฒนาด้านคำศัพท์					
2.	การสอนโดยการแยกหน่วยคำเป็นวิธีสอนที่มีประโยชน์ต่อการเรียนคำศัพท์					
3.	ลักษณะของคำ (word form) มีประโยชน์ต่อการเรียนการสอนภาษาอังกฤษ					
4.	การสอนโดยการแยกหน่วยคำ (word parts) เหมาะสำหรับการเรียนรู้คำศัพท์ในระดับของฉัน					
5.	การสอนโดยการแยกหน่วยคำ (word parts) ช่วยส่งเสริมทักษะการอ่าน					
6.	การเรียนรู้คำศัพท์โดยการแยกหน่วยคำ (word parts) ช่วยเพิ่มความรู้ด้านคำศัพท์ของฉัน					
7.	ความเข้าใจในเรื่องของหน่วยคำ (word parts) ช่วยส่งเสริมการเรียนคำศัพท์					
8.	การเรียนโดยการแยกหน่วยคำ (word parts) เพิ่มความมั่นใจและลดความเครียดในห้องเรียน					
9.	ฉันรู้สึกว่าการเรียนรู้คำศัพท์โดยการแยกหน่วยคำ					

	หัวข้อ	ระดับคะแนน				
		5	4	3	2	1
	(word parts) จะช่วยให้ฉันสังเกตคำศัพท์ได้เร็วขึ้นและง่ายขึ้น					
10.	ฉันรู้สึกสบายใจเวลาเรียนโดยการแยกหน่วยคำ (word parts)					
11.	การเรียนโดยการแยกหน่วยคำ (word parts) กระตุ้นให้ฉันอยากเรียนคำศัพท์มากขึ้น					
12.	การเรียนโดยการแยกหน่วยคำ (word parts) ยกระดับทักษะทางด้านภาษาอังกฤษของฉัน (ไวยากรณ์ ความหมายและการใช้คำ)					

Appendix J: Ethics Approval

ECMSU01-06.02

แบบยินยอมให้ทำการวิจัยสำหรับอาสาสมัครอายุ 7-18 ปี

ข้าพเจ้า (นาย /นาง /นางสาว).....นามสกุล.....อายุ.....ปี เกี่ยวข้องเป็นบิดา/มารดา/ผู้ปกครองของ (ด.ญ./ด.ช./นาย/นางสาว).....นามสกุล.....อายุ.....ปี

ขอแสดงความยินยอมให้เด็กในปกครองของข้าพเจ้าเข้าร่วมการวิจัย ในโครงการวิจัยเรื่อง "ผลของการสอนแบบเน้นงานตามแบบฟอร์มในการพัฒนาคำศัพท์ของผู้เรียนระดับประถมศึกษาไทยที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ (The Effect of Task-Related Focus-on-Forms Instruction on EFL Vocabulary Development in Thai Primary School Students)"

ข้าพเจ้าและเด็กในปกครอง/ในความดูแลของข้าพเจ้า ได้รับทราบรายละเอียดเกี่ยวกับที่มาและวัตถุประสงค์ในการทำวิจัย รายละเอียดขั้นตอนต่าง ๆ ที่จะต้องปฏิบัติหรือได้รับการปฏิบัติ ความเสี่ยง/อันตราย และประโยชน์ซึ่งจะเกิดขึ้นจากการวิจัยเรื่องนี้ ข้าพเจ้าได้อ่านรายละเอียดในแบบชี้แจงสำหรับอาสาสมัครหรือผู้มีส่วนร่วมในการวิจัยโดยตลอด และได้รับคำอธิบายจากผู้วิจัย จนเข้าใจเป็นอย่างดีแล้ว

ตลอดจนการรับรองจากผู้วิจัยที่จะเก็บรักษาข้อมูลของเด็กในปกครองของข้าพเจ้าไว้เป็นความลับ และจะไม่ระบุชื่อหรือข้อมูลส่วนตัวเป็นรายบุคคลต่อสาธารณชน โดยผลการวิจัยจะนำเสนอในลักษณะภาพรวมที่เป็นการสรุปผลการวิจัยเพื่อประโยชน์ทางวิชาการเท่านั้น

ข้าพเจ้าจึงสมัครใจให้เด็กในปกครอง/ในความดูแลของข้าพเจ้าเข้าร่วมในโครงการวิจัยนี้ ภายใต้เงื่อนไขที่ระบุไว้ในแบบชี้แจงอาสาสมัคร โดยข้าพเจ้ายินยอมให้เด็กในปกครอง/ในความดูแลของข้าพเจ้า เข้าร่วมในการวิจัย และเด็กในปกครอง/ในความดูแลของข้าพเจ้าสมัครใจเข้าร่วมการวิจัยนี้ ภายใต้เงื่อนไขที่ระบุไว้ในแบบชี้แจงอาสาสมัคร

ข้าพเจ้ามีสิทธิให้ผู้ที่อยู่ในปกครอง/ในความดูแลของข้าพเจ้าหรือเป็นความประสงค์ของผู้ที่อยู่ในปกครอง/ในความดูแลถอนตัวออกจากการวิจัยเมื่อใดก็ได้ โดยไม่ต้องแจ้งเหตุผล ซึ่งการถอนตัวออกจากการวิจัยนั้น จะไม่มีผลกระทบในทางใด ๆ ต่อผู้ที่อยู่ในปกครอง/ในความดูแลของข้าพเจ้าและตัวข้าพเจ้าทั้งสิ้น

ข้าพเจ้าได้รับคำรับรองว่า ผู้วิจัยจะปฏิบัติต่อผู้ที่อยู่ในปกครอง/ในความดูแลของข้าพเจ้า ตามข้อมูลที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย และข้อมูลใดๆที่เกี่ยวข้องกับผู้ที่อยู่ในปกครอง/ในความดูแลของข้าพเจ้า ผู้วิจัยจะเก็บรักษาเป็นความลับ โดยจะนำเสนอข้อมูลจากการวิจัยเป็นภาพรวมเท่านั้น ไม่มีข้อมูลใดในการรายงานที่จะนำไปสู่การระบุตัวผู้ที่อยู่ในปกครอง/ในความดูแลของข้าพเจ้าและตัวข้าพเจ้า

หากข้าพเจ้าและผู้ที่อยู่ในความปกครองของข้าพเจ้ามีข้อข้องใจเกี่ยวกับขั้นตอนของการวิจัย ข้าพเจ้าสามารถติดต่อกับ นางสาวญาณี เมธาพิสิทธิกุล คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยมหาสารคาม เบอร์โทรศัพท์ 081-498-2354 ได้ตลอด 24 ชั่วโมง

ข้าพเจ้าและผู้ที่อยู่ในปกครองของข้าพเจ้าเข้าใจข้อความในแบบคำชี้แจงอาสาสมัคร และแบบยินยอมนี้โดยตลอดแล้ว จึงลงลายมือชื่อไว้

ลงชื่อ.....อาสาสมัคร
(.....)
วันที่.....เดือน.....พ.ศ.....

ลงชื่อ.....ผู้ปกครอง
(.....)
วันที่.....เดือน.....พ.ศ.....

ลงชื่อ.....ผู้ให้ข้อมูลและขอความยินยอม
(นางสาวญาณี เมธาพิสิทธิกุล)
วันที่.....เดือน.....พ.ศ.....

BIOGRAPHY

NAME	Miss Yanee Methapisittikul
DATE OF BIRTH	July 15,1988
PLACE OF BIRTH	Roi-et, Thailand
ADDRESS	321 Village No. 9, Nonrang sub district, Muang district, Roi-et province, 45000
POSITION	An English teacher
PLACE OF WORK	Anuban Roi-et School, Roi-et, Thailand
EDUCATION	2011 Bachelor of Science (B.Sc.) Brigham Young University-Hawaii 2023 Master of Education (M.Ed) Program in English Language Teaching, Mahasarakham University, Thailand