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

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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 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 participants' vocabulary words. Four tests were used 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. 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 helped learn vocabulary. Pedagogical implications and suggestions for further studies are presented.

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

1. Introduction

Vocabulary knowledge is a continuum of different sub-knowledge aspects (e.g., González-Fernández & Schmitt, 2019; Nation, 2013; Nontasee & Sukying, 2021). And that it consists of multiple levels of understanding, which range from knowing a word to using it in contexts (Henriksen, 1999; Laufer & Goldstein, 2004; Nation, 2013). Due to the complexity of its construction, a word's learnability varies depending on the nature of various vocabulary knowledge aspects. Accordingly, the acquisition of vocabulary knowledge is still under-researched. Mainly, how vocabulary is learned or what teaching methods are processed has been purposefully emphasized 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).

Studies in the field of the vocabulary knowledge construct and its acquisition and development have indicated that various aspects of vocabulary knowledge are interrelated and continually known (e.g., González-Fernández & Schmitt, 2019; Sukying & Nontasee, 2021), specifically receptive knowledge is first acquired and viewed to be built on productive knowledge (e.g., Hayashi & Murphy, 2011; Laufer & Goldstein, 2004; Sukying, 2022). However, learners had insufficient vocabulary knowledge, which inadequately relates to other skills of English language development, and they lacked exposure to the target vocabulary items. (e.g., Laufer, 2010; Sukying, 2017). Experimental studies have shown that the instructional interventions which integrate with vocabulary knowledge reflect positive-finding contributions to its acquisition and development, both receptively and productively, and have suggested that they facilitate an increased and more related to other English proficiency and skills (e.g., Bubchaiya & Sukying, 2022; Magnussen & Sukying, 2021; Matwangsaeng & Sukying, 2023; Sukying, 2020; Yowaboot & Sukying, 2022).

Based on previous findings, English as a Foreign Language (EFL) students had poor vocabulary knowledge (e.g., Laufer & Goldstein, 2004; Magnussen & Sukying, 2021; Nontasee & Sukying, 2021; Sukying, 2017; Yunus et al., 2016). A lack of vocabulary knowledge illustrates an acquisition and development of a word (Hayashi & Murphy, 2011; Sukying, 2022). According to vocabulary studies, 8,000- 9,000 word families on receptive knowledge are necessary for second (L2) or foreign language (EFL) learners to understand a variety of written English texts and 6,000 – 7,000 word families for spoken discourses (Nation, 2006). Regardless of obtaining more than 1,000 hours of systematic teaching, L2 or EFL students in different countries have a vocabulary of 2,000–4,000 word families. Their receptive knowledge is insufficient to build on their 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 crutial to educate, motivate, and encourage students to learn vocabulary.

The underlying justification for the emphasis is that the form knowledge of a word is regarded as the initial stage to be known (e.g., Elgort, 2011; Henriksen, 1999; Nation, 2013; Nontasee & Sukying, 2021), and it was proved to be fundamental knowledge to further vocabulary development (Laufer & Goldstein, 2004; Sukying, 2018a; 2018b; Sukying & Nontasee, 2022). Plus, based on many experimental studies, the instructional method that integrates vocabulary interventions benefit learners of English (Bowers & Kirby, 2010; Colovic-Markovic, 2017; Magnussen & Sukying, 2021).

In the current study, task-related Focus on Forms (FonFs) instruction was a pedagogical approach that relied on students' attention only in morphosyntactic (word form) and lexical in language form (Collins & Ruivivar, 2020). This type of instructional approach could help EFL students memorize and retain the words more successfully. Using tasks with a higher involvement load hypothesis led to higher long-term efficient vocabulary learning (Afshar, 2020; Keyvanfar & Badraghi, 2011; Maleki, 2012). Therefore, focusing on forms aims influence vocabulary development, while the task's involvement load improves retention of to-be-learned words.

1.1 Vocabulary Knowledge Construct

Nation (2013) proposes and explains in depth a comprehensive collection of vocabulary knowledge. It is also the most comprehensive vocabulary knowledge framework, which has since been accepted by a number of vocabulary researchers. This conceptualization of the overall knowledge of a word divides vocabulary knowledge into its constituent parts and includes the 18 sub-knowledge aspects. The learning process represents a receptive and productive vocabulary knowledge continuum, starting with word comprehension and leading to word use. According to Nation (2013), Form knowledge consists of knowledge of *spoken form*, *written form*, and *word parts*. Meaning knowledge includes *form and meaning*, *concepts and referents*, and *associations* (Nation, 2013). Knowledge of use encompasses knowledge of *grammatical functions*, *collocations*, and *constraints of use* (Nation, 2013).

1.2 Focus on Form/Focus on Forms

Form-focused instruction (FFI) can be in two types: focus on form (FonF) and Focus on Forms (FonFs). Long (1991) defined Focus on Form (FonF) as drawing students' attention to linguistic components that emerge incidentally in sessions focusing on meaning or communication. The term 'form' refers to the function that a specific form performs. 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 (1991) called Focus on Forms (FonFs). Thus, FonFs is a more traditional structure-based instruction focusing on distinct linguistic structures (Laufer, 2005; Long, 1991; Sheen, 2002).

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 unconsciously (Anderson, 1982, DeKeyser, 1998). FonFs is designed to focus mainly on the word form and deliver a clearer understanding of the lexical form. Indeed, a word is referred to as the nature of lexical knowledge rather than competence. It is accumulated and associated with 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.

1.2.1 Task-Related Approach

Laufer (2005) has divided form-focused instructions into three categories: 'task-embedded FonF', 'task-related FonFs', and 'pure FonFs'. Task-related Focus on Forms (FonFs) is the approach in which the students view

themselves as language learners and the language as the study aim. It relies on the presumption that learning a second language, especially for adult learners, is similar to attaining other cognitive skills (Bley-Vroman, 1988). Therefore, the principles underpinning grammatical structures should be explained, and frequent opportunities for practicing these structures in communicative and non-communicative activities should be supplied.

Regarding vocabulary learning, form and meaning knowledge is the first step of vocabulary acquisition in terms of acquiring new words. (Elgort, 2011; Henriksen, 1999; Jiang, 2002; 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-focused instruction (FFI). 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, deliberate teaching, seems 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, 2002). 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. The task-related FonFs may yield fruitful information for pedagogical implications in language classrooms.

1.3 Involvement Load Hypothesis (ILH)

According to the Involvement Load Hypothesis (ILH) proposed by Laufer and Hulstijn (2001), the amount of cognitive effort or involvement a task requires influences vocabulary acquisition and retention. More specifically, the ILH, which includes the concepts of cognitive effort, depth of processing, attention, and elaboration, preserves that involvement is a motivational-cognitive construct that may explain and predict learners' success in recalling new words that they are learning (Laufer, 2017). The degree of involvement in word processing—that is, whether the task was assigned internally by the learner or externally set by an individual like the teacher, whether the learner searched for the new word or not, and whether the learner compared the new word against other words or its multiple senses—determines the level of efficiency of word retention. (Afshar, 2020; Hulstijn & Laufer, 2001). It is generally agreed that tasks with a higher level of engagement are more advantageous than those with a lower engagement for vocabulary learning and retention. If the learners are exposed to the target words as they go through a significantly greater level of processing regarding the target words. They are also more highly involved with learning the target words, most likely because they pay greater attention to the meaning and use aspects of the target words and the form concurrently.

Previous studies have examined vocabulary 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; Keyvanfar & Badraghi, 2011; Maleki. 2012). According to cognitive psychologists, memory performance is substantially more influenced by the learner's processing activities than by the learner's intention to learn per se (Eysenck, 1983; Hulstijn & Laufer, 2001). Vocabulary learning and retention in a second language depend on the level of engagement in each task (Keating, 2008). The task with lower involvement gained more vocabulary knowledge than the task with high participation and did not always result in greater retention scores. Therefore, the presence or absence of the involvement factors, i.e., need, search, and evaluation, influence the task's involvement load (Laufer & Hulstijn, 2001). Vocabulary learning and retention are believed to be improved by tasks with a higher involvement load than a lower one.

1.4 Relevant Studies

Vocabulary knowledge research is attracted by vocabulary researchers in how words are stored, activated, processed, and retrieved by L2 language users (Aitchison, 2012; Meara, 2009). Furthermore, the receptive and productive continuum is one development-focused continuum that highlights learners' vocabulary knowledge in language use (Schmitt, 2010; Webb, 2008; Zhong, 2018). This continuum explains why some words are known receptively and used productively. English language learners may benefit from teaching strategies that include knowledge interventions (Bowers & Kirby, 2010; Colovic-Markovic, 2017; Kirby, Bowers, & Deacon, 2009; Nation, 2013). Deliberate vocabulary teaching may help learners successfully utilize their knowledge, as some English language learners struggle with uninstructed knowledge that has not been explicitly taught. Deliberate vocabulary teaching may create knowledge different from the uninstructed knowledge examined in existing correlational or predictive studies. Deliberate teaching should result in more precise, expedited, and explicit learning and knowledge.

The uninstructed position assumes that when learners encounter a new word, they recognize it as an unknown word, decide to infer its meaning from context using a variety of linguistic and non-linguistic clues, make a reasonable guess, and may retain only a partial or precise definition of the word. Additional exposure to a word

increases the likelihood that it will be retained and expanded upon if it is not remembered after the first exposure or if only fragmentary information about the word has been acquired. Even if only a few words are added after each communicative activity or text, the cumulative gains over time may be extraordinary if the learner reads consistently.

According to prior research, FonFs tasks that require learners to practice words in non-communicative contexts benefit vocabulary acquisition and growth. Form-focused tasks encourage elaborative attention to formal and semantic features of words, increasing their probability of retention (Anderson, 1995; Baddeley, 1997; Eysenck, 1983). This indicates that learners are more likely to remember the word if they pay close attention to its pronunciation, spelling, grammatical category, meaning, and semantic relationships to other words. Repeated meetings with words and the level of awareness (elaboration or involvement) during a communicative or other learning task enhance vocabulary development.

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 significant for word retention in task involvement load. By practicing multiple task exposures, learners had the highest involvement load (Laufer & Hulstijn, 2001).

Furthermore, Webb (2005; 2009) used a multi-task design to examine five-word aspects receptively and productively: orthography, meaning, grammatical function, association, and syntax. Participants in the productive learning group outperformed those in the receptive learning group on all receptive and productive knowledge aspects. This implies that receptive learning tasks contribute to developing receptive knowledge and a significantly greater increase in productive knowledge. Receptive vocabulary learning tasks, for example, can only be employed in the classroom for a limited duration. Webb (2009) further alternatively found using receptive and productive word pair tasks that receptive learning resulted in greater improvements in receptive meaning. Webb indicated that, in practice, both receptive and productive tasks should be incorporated to teach vocabulary. Laufer and Rozovski-Roitblat (2011) also discovered that an increase in the rate of repetition of words affected retention in the FonFs task.

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 in the Thai context (e.g., Bubchaiya & Sukying, 2022; Magnussen & Sukying, 2021; Matwangsaeng & Sukying, 2023; Nontasee & Sukying, 2021; Sukying, 2020; Yowaboot & Sukying, 2022). Previous studies of 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, 2021; Sukying, 2017, 2018a, 2018b). It was demonstrated that the more learners' knowledge increased, the more related skills improved. In addition, 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, which may affect students' low level of vocabulary development (Nirattisai & Chiramanee, 2014). 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 that aligns with the previous studies (Sukying & Matwangsaeng, 2022; Sukying, 2017).

Previous literature indicates that vocabulary 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 facilitates and increases the development of vocabulary knowledge successfully in learners. Yet, most previous studies provided only the nature of the vocabulary construct in vocabulary growth. Deliberate vocabulary teaching may help learners harness their vocabulary knowledge more successfully. It may result in more accurate and quicker learning and more explicit knowledge to increase learners' vocabulary knowledge, given that uninstructed vocabulary knowledge offers some struggling English language learners a compensatory strategy (Sukying, 2020). Therefore, the present study aimed to examine the contributions of the instructional methods through task-related approaches to acquiring a word, particularly word form knowledge (written form and word parts), both receptively and productively. The underlying justification for the emphasis was that the form-meaning link is regarded as the initial stage of vocabulary learning (Magnussen & Sukying, 2021: Sukying, 2017, 2022).

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. Therefore,

task-related FonFs instructions seemed to be appropriate for vocabulary knowledge to teach a word in a particular word form knowledge. The FonFs approach explicitly instructed vocabulary focusing on lexical form, i.e., how to deal with lexical items. Through form-focused instruction and tasks, Thai students could practice word forms and learn the definitions and words' constituent elements/affixes. They could remember and retain the words more effectively. The level of involvement students processed in words also determined the quality of word retention. 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 the development of their vocabulary knowledge. Specifically, this study emphasized the effects of tasks-related focus-on-forms (FonFs) mediating primary school children's vocabulary knowledge in a provincial region of northeastern Thailand.

This study investigated the impacts of task-related focus-on-form instructions for Thai EFL primary learners in developing students' English vocabulary on vocabulary development. Additionally, the researcher also explored how learners perceived task-related FonFs instructions. This study addressed the following research questions:

- 1. How do task-related FonFs (written form and word parts) affect receptive and productive vocabulary knowledge acquisition?
- 2. How do Thai EFL primary school participants perceive task-related FonFs on vocabulary development?

2. Method

2.1 Participants and Setting

The study included 72 Grade 6 students 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, and they had been studying English for eight years and had never been to any English-speaking country. As per CEFR, based on the school's Ordinary National English Test (O-Net) scores, most learners had an English proficiency level of A1, indicating that they had basic English language knowledge.

The participants were from two different intact classes where the researcher was teaching. The participants were divided into two main groups: the written form group participants (n = 37) who received the written form instruction, and the word parts group participants (n = 35) who received the word parts instruction. It should be noted that the names of the participants were credentials to maintain anonymity.

2.2 Selecting the Target Words for the Study

One hundred and thirty-seven words were selected from the textbook "Fly with English 6" from Marshall Cavendish Education. These one hundred and thirty-seven words were later rechecked against the New General Service List (NGSL) (Browne, Culligan, & Phillips, 2013) to ensure that they were proper for the sixth-grade English learning context (Laufer & Nation, 2012). Then, the 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. The final list of the target words included 104 and was taught in both treatments of written form and word parts knowledge and randomly selected to assess the participants in both written form and word part groups.

2.3 Measures

Four tests were used to measure the form aspect in the reception and production of written form and word parts. Two sets of questionnaires were further used to evaluate the participants' perceptions of each group. All receptive tests, the form spelling test for the written form group and the word parts identify test for the word parts group, included 30 questions, took 40 minutes, and were given to each group of participants before and after the treatment. All productive tests, the word-spelling complement for the written form group and word parts test for the word parts group, included 20 questions with 40 minutes and were given to each participant before and after the treatment.

All tests were reviewed by three experts in the area of English education (all items \geq 0.5). The 30 primary school students also conducted the reliability of tests. All items of all tests were then verified to be suitable for measuring (all difficulty values = 0.2-0.8; all discrimination values = 0.2-1). All Cronbach's α values were also \geq 0.75.

2.3.1 Form spelling test

The form spelling test, based on Laufer and Goldstein (2004) and Nontasee and Sukying (2021), was used to measure receptive written form knowledge and designed in a multiple-choice test for participants to choose the correct word form (i.e., correct spelling). The test presented four alternatives with no meaning. The test aimed to

check if the participants knew the word forms. If the participant answered correctly, one point was given. If not, nothing was awarded. (See Appendix A).

- A. Sae
- B. See
- C. Sei
- D. Sie

2.3.2 Word-Part Identification Test

Based on Mizumoto, Sasao, and Webb (2019), the word-part identification test was used to measure receptive word part knowledge and designed as a multiple-choice format to measure grammatical function knowledge (i.e., the part of speech). The participants needed to choose the correct part of speech from the four alternatives provided (i.e., the form of noun, verb, adverb, and adjective). If the participant responded correctly, one point was given. If not, zero was given. (See Appendix B).

See

- A. Noun
- B. Verb
- C. Adverb
- D. Adjective

2.3.3 Word-spelling complement test

Word-spelling complement test was developed based on Laufer and Goldstein (2004) and Nontasee and Sukying (2021) and used to evaluate the participants' productive written form knowledge (spelling skill). The test measured the learners' 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 participant answered correctly, one point was awarded. 0.5 was awarded if part of the morpheme was correct, and zero was given if the answer was incorrect. (See Appendix C).

นาฬิกา = W ___ __ __

2.3.4 Word-Part Recall Test

Word-part recall test was designed and developed based on Hayashi and Murphy (2011) and Nontasee and Sukying (2021). This test was used to measure learners' productive knowledge of word parts. The participants needed to provide the correct form of the given word (in the blanket) in Part A and then identify the parts of speech of the word. The total points of each question were two points. Two points were awarded if the participant answered Parts A and B correctly. If Part A or Part B was correct, one point was given. If none was correct or unanswered, zero was provided. (See Appendix D).

Part A	Part B			
1. He is a	N.	V.	Adj.	Adv.

2.3.5 Students' Perceptions Questionnaires

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 instructions 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 consisted 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 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 was 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

It should be noted that all items in the two sets of questionnaires rated by three experts were ≥ 0.5 , and Cronbach's α values of the questionnaires were ≥ 0.79 .

2.4 Data Collection Procedure

The present study was presented as the pretest-treatment-posttest research design. After obtaining the target word list, the researcher divided seventy-two EFL learners into two experimental groups: The written form group and the word parts group.

A pretest was given to each group to determine the participant's knowledge in the first week. The researcher then began the treatment using a textbook titled "Fly with English 6" the following week. The treatment of each group was taken six weeks as additional teaching, and each group was held three days a week, which took one hour for each session (A total of 18 sessions per group). Both groups had the same syllabus and coursebook. Regarding the intervention, the written form group students were provided with reading passages and learned the target words through reading. The students guessed its relevant meaning, which was in the passage, without help from a dictionary. Then, the researcher repeated the spelling of the target words, and students wrote the words and repeated the spellings chorally. Later, the researcher gave standard definitions in L1 explanations from accredited monolingual English dictionaries, and the students checked whether their answer was correct. Last, the researcher gave some example sentences from authentic English sources showing the use of the word in context. Likewise, in the word parts group, students were expected to meet the target words through reading passages and search for the relevant meaning senses of the words without any help from the dictionary. Then, the researcher repeated the spelling of the target words, and students wrote the words and repeated the spellings 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 meanings from their parts. Last, the researcher gave some example sentences from authentic English sources showing the use of the word in context. In brief, the distinction between the groups is the focus of explicit instructions on word parts. More precisely, the word parts group participants were explicitly taught word formations by deconstructing word elements and reconstructing them into more multi-part words, whereas the written form group students were not.

All participants took an immediate posttest and the questionnaires right after the last session of the treatment. Specifically, the productive test was conducted before the receptive test due to the cross-test effect (Laufer & Goldstein, 2004). The 12 questions of the two questionnaires were also translated into Thai to let the participants understand more easily.

2.5 Data Analysis

The test scores were analyzed with descriptive and inferential statistics. Specifically, to detect any significant difference and imply how learners' knowledge increased, the comparison between the 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. Furthermore, the effect size (Cohen's *d*) analysis was used to examine the impact of the variables on reality. The independent variables were task-related FonFs interventions of different types of knowledge, i.e., written form and word parts, in each group. The dependent variables were posttests by two groups. These tests included receptive and productive measures of written form and word part knowledge.

3. Results

Scores on the receptive and productive tests of written form and word part knowledge at the pretest and posttest were summarized as descriptive statistics. Table 1 presents the descriptive statistics summary of two experimental groups [written form group (n = 37) and word parts group (n = 35)], which are reported, including mean, standard deviation, skewness, and kurtosis.

Table 1. Descriptive statistics

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

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 comparison, the word-part-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 parts knowledge (word parts identification test) and 11.50% for the productive test of word parts knowledge (word parts test) after the instructional intervention. Furthermore, 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.

As shown in Table 2, a dependent-samples t-test analysis illustrated that 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). Plus, 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, t = 0.88), and its productive tests (word parts test) of both times together were statistically different with a medium effect size (t = 2.53, t = 0.05).

Table 2. Comparisons between pretest and posttest

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

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

As presented in Table 3, an independent-samples t-test analysis further revealed that there were no statistically significant differences and effect sizes on different receptive tests between the written form and word parts groups in the pretest (t = 1.61, p > 0.05, d = 0.38), different productive tests in 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 receptive tests were significantly different between the written form and word parts groups in the posttest, with a large effect size (t = 4.56, p < 0.001, d = 1.07).

Table 3. Comparisons between two experimental groups

	Tests	Pretest		Posttest	
	Tests	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	1.01	0.36	4.30	
Written form group	Word-spelling complement test	0.21	0.07	0.05	0.01
Word parts group	Word parts test	0.31	0.07	0.05	0.01

3.2 Participants' Perceptions of Instructional Interventions

As illustrated in Table 4, the written form instruction conducted by the participants (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).

Table 4. Students' perceptions towards learning by form-focused instruction (written form)

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

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 5.

Table 5. Students' perceptions towards learning by form-focused instruction (word parts)

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

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. Discussion

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 unrelated 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, grasp the roles of word parts, and put the words in the context to express the meaning. In this respect, target words were gradually learned incidentally; students effortlessly committed 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 aligned 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 is intended to explicitly instruct vocabulary focusing on lexical form, i.e., how to deal with lexical items, and 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 (Hill & Laufer, 2003; Laufer, 2003) that FonFs tasks contributed to effective memorization and 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) stated that "involvement" is "a motivational-cognitive construct that could explain and predict learners' success in retaining the new words 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 group was 3 (need = \pm 1, search = \pm 2, and evaluation = 0), while the overall involvement index for the word parts group was 4 (need = \pm 1, search = \pm 2, and evaluation = \pm 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 more profoundly 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.

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 written form group participants performed better than those from the word parts group.

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 helped develop vocabulary knowledge, especially in the written form aspect, and 79% of them stated that the instruction was 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 affected their reading ability and that they could recognize the words faster and more easily with the knowledge of the word parts. However, the only moderate score in the questionnaire was from the word parts questionnaire. Only 74.8% of the participants felt comfortable learning by word parts instructions. This might be because the word parts instruction required a higher cognitive load to analyze the words and deconstruct words into smaller components. 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., knowledge of written form and word parts, 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.

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 challenging 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. Conclusion

The present study provided 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, 2018a, 2018b, 2020), the study showed 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 the 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 suggested that task-related FonFs activities are essential for developing young learners' word knowledge in both receptive and productive aspects. In brief, the findings indicated 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.

6. 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 better understand vocabulary knowledge's construct and acquisition and development. Examining the relationship to other aspects, i.e., vocabulary size and depth, or English abilities, i.e., writing, reading, speaking, and listening, will be better. 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 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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Appendix A

The form spelling test

Instructions: Please select the word with the correct spelling and write the answer in the box next to the question number.

Examples:

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

Appendix B

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		✓		

Appendix C

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. โกรซ	angry

Appendix D

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 isangry (anger)				>
2. They livehappily (happy)			\	

Note: For further information regarding the tests, please contact Yanee Metapisittikul yanee.noii@gmail.com

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