Involvement Load Hypothesis: Vocabulary Knowledge Acquisition Through Reading with Target Words

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Abstract

This study aimed to (1) examine learners' acquisition of target vocabulary through reading tasks based on the Involvement Load Hypothesis (ILH) and (2) analyze the effects of task-induced involvement on the development of learners' vocabulary knowledge. The research employed a quasi-experimental design. The sample consisted of 18 first-year Business English students selected through simple random sampling. The research instruments included (1) the Vocabulary Knowledge Scale (VKS) to assess vocabulary knowledge and (2) ILH-based reading tasks designed to incorporate the three components of involvement: need, search, and evaluation. Data were analyzed using mean, standard deviation, and paired-sample t-test.

The findings revealed that (1) learners demonstrated a statistically significant improvement in receptive vocabulary knowledge at the .05 level, particularly in their ability to recognize and explain the meanings of target words after the intervention, and (2) task-induced involvement, as conceptualized by ILH, had a positive effect on vocabulary acquisition, especially in terms of retention and comprehension. However, learners' productive vocabulary knowledge, particularly their ability to use target words in context, remained limited and showed no significant improvement. These results suggest that ILH-based reading tasks are effective in enhancing receptive vocabulary learning but are insufficient on their own to develop productive vocabulary skills. The study highlights the importance of integrating output-oriented activities to complement ILH-based tasks. The findings contribute to pedagogical knowledge by providing a practical framework for

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designing vocabulary instruction that promotes deeper cognitive engagement and supports effective vocabulary learning in EFL contexts.

Keywords: Involvement Load Hypothesis; Vocabulary Acquisition; Vocabulary Knowledge

Introduction

Vocabulary acquisition is widely recognized as a fundamental component of second language learning, as it underpins learners' ability to develop the four essential language skills: listening, speaking, reading, and writing. Without sufficient vocabulary knowledge, learners are unable to comprehend input effectively or produce meaningful output (Willis & Ohashi, 2012). Consequently, vocabulary instruction has become a central concern in second language acquisition (SLA) research, with scholars proposing a range of approaches to facilitate vocabulary learning. Among these, reading has been identified as a particularly effective medium for vocabulary development, as it provides learners with repeated exposure to lexical items in meaningful contexts (Rott, 1999; Read, 2000). Furthermore, studies have shown that both contextualized and decontextualized learning tasks can enhance vocabulary retention, depending on how learners engage cognitively with the target words (Qian, 1996). However, not all reading activities lead to successful vocabulary acquisition. In response to this limitation, Laufer and Hulstijn (2001) proposed the Involvement Load Hypothesis (ILH), which posits that vocabulary retention is determined by the degree of cognitive and motivational involvement required by a task. Specifically, ILH identifies three key components need, search, and evaluation which collectively influence the depth of processing and, ultimately, the effectiveness of vocabulary learning. Tasks that generate higher involvement loads are therefore expected to result in stronger vocabulary retention and deeper lexical knowledge.

Despite the theoretical strength of the Involvement Load Hypothesis, several important issues remain unresolved in the existing literature. While prior research has demonstrated that tasks with higher involvement loads tend to produce better vocabulary retention (Ansarin & Bayazidi, 2016; Jing & Jianbin, 2009), many studies have focused primarily on incidental vocabulary acquisition or isolated task types, rather than systematically integrating ILH into structured reading

activities. In particular, there is limited empirical evidence regarding how ILH can be operationalized in reading tasks that explicitly incorporate target words, especially within real classroom contexts. Moreover, previous studies have often emphasized gains in receptive vocabulary knowledge such as word recognition and meaning recall while paying less attention to productive vocabulary development, including learners' ability to use newly acquired words in context (Bao, 2015; Barcroft, 2006). This creates a critical gap between theoretical assumptions and pedagogical practice. In EFL contexts, where learners typically have limited exposure to authentic language input, it is essential to design instructional tasks that not only promote vocabulary recognition but also support deeper processing and long-term retention. The lack of clarity regarding how ILH-based reading tasks influence different dimensions of vocabulary knowledge particularly the distinction between receptive and productive learning highlights the need for further investigation. Therefore, examining the effectiveness of ILH-informed reading tasks in promoting vocabulary acquisition through target words is both theoretically significant and pedagogically relevant.

Given these considerations, the present study aims to address this gap by investigating the role of the Involvement Load Hypothesis in vocabulary knowledge acquisition through reading tasks that incorporate explicit target words. Specifically, this study seeks to answer the following research questions: (1) To what extent do ILH-based reading tasks enhance learners' acquisition of target vocabulary? (2) How does task-induced involvement, as conceptualized by ILH, influence different dimensions of vocabulary knowledge, particularly receptive and productive knowledge? and (3) What implications do the findings have for designing effective vocabulary instruction in EFL contexts? By addressing these questions, the study intends to contribute to both theoretical understanding and pedagogical application of ILH. It provides insights into how structured reading tasks can be designed to maximize learner involvement and improve vocabulary retention, while also highlighting the limitations of reading-based approaches in developing productive vocabulary use. Ultimately, this research seeks to bridge the gap between theory and practice by offering a more nuanced understanding of how cognitive engagement in reading tasks can facilitate vocabulary acquisition in second language learning environments.

Research Objectives

1. To examine students' acquisition of target words through ILH-based reading tasks.

2. To investigate the effects of the Involvement Load Hypothesis on learners' vocabulary knowledge development.

Research Methodology

This study aimed to investigate the effects of the Involvement Load Hypothesis (ILH) on vocabulary knowledge acquisition through reading tasks with target words. The methodology consisted of four components: participants, instruments, procedures, and data analysis.

1. Participants

Eighteen first-year Business English majors at Roi-Et Rajabhat University participated in this study during the first semester of the 2016 academic year. Their ages ranged from 18–20 years, and none had prior experience in an English-as-a-second-language environment. Participants were randomly selected from the cohort to ensure representativeness. While the sample size was relatively small, it was deemed appropriate for this exploratory study and consistent with prior ILH-related research. The limitation of generalizability is acknowledged and addressed in the discussion.

2. Reading tasks and target words

Three reading passages were selected from More Reading Power 3 (Jeffries & Mikulecky, 2012), containing eight target words (24 in total) in each. Target words were introduced at the beginning of each handout, followed by a passage embedding the words. After reading, students completed comprehension exercises and tasks requiring the use of target words in different contexts. The tasks were designed to engage all three ILH components need, search, and evaluation.

3. Vocabulary Knowledge Scale (VKS)

The Vocabulary Knowledge Scale (VKS) (Paribakht & Wesche, 1997; Brown, 2011) was used to assess students' vocabulary knowledge before the first reading task and after the final task. The VKS includes five levels, ranging from "I don't remember having seen this word before" to "I can use this word in a sentence." The instrument's validity was ensured through expert review (Index of Item-

Objective Congruence: IOC = 0.87), and its reliability was confirmed with a pilot test (Cronbach's alpha = 0.82), indicating acceptable internal consistency.

4. Procedure and data collection

The study was conducted over three sessions of two hours each. In Session 1, students completed a pre-test VKS, followed by the first reading task. In sessions 2 and 3, students undertook the second and third reading tasks, respectively. At the end of the third session, students completed the post-test VKS. Students were provided with dictionaries (print and electronic) to facilitate the "search" process but received no explicit vocabulary instruction to maintain task-induced involvement.

5. Data analysis

To address Objective 1, descriptive statistics (mean, standard deviation) were calculated from pre- and post-test VKS results. To address Objective 2, paired-sample t-tests were conducted to determine whether differences in vocabulary knowledge across the five VKS levels were statistically significant. Both receptive and productive knowledge gains were analyzed.

Results

Vocabulary Knowledge Acquisition through Reading Tasks

Students' vocabulary knowledge was measured before and after the reading treatments using the Vocabulary Knowledge Scale (VKS). Table 1 presents the descriptive statistics for the pre-test, showing that most students reported either unfamiliarity with the target words (Scale A: M = 7.44) or recognition without meaning (Scale B: M = 11.39). These results indicate that students had limited knowledge of the target words before the treatment.

VKS Scales	Mean	SD	SE Mean
A. Unfamiliar	7.44	5.94	1.40
B. Recognized, no meaning	11.39	6.00	1.42
C. Recognized, partial meaning	2.28	2.47	0.58
D. Known meaning	2.56	4.15	0.98
E. Use in a sentence	0.22	0.43	0.10

Table 1 Descriptive Statistics for Pre-test VKS (n = 18)

Table 2 shows post-test results. After three reading sessions, students most frequently selected Scale D (M = 11.22), indicating that they were able to recall and provide accurate meanings of the target words. The frequency of responses at Scale A dropped to nearly zero, suggesting significant improvement in word recognition. However, productive use (Scale E) remained very low (M = 0.17).

VKS Scales	Mean	SD	SE Mean
A. Unfamiliar	0.22	0.94	0.22
B. Recognized, no meaning	6.22	5.66	1.34
C. Recognized, partial meaning	6.17	7.30	1.72
D. Known meaning	11.22	8.62	2.03
E. Use in a sentence	0.17	2.03	0.12

Table 2 Descriptive Statistics for Post-test VKS (n = 18)

To examine whether differences between pre- and post-tests were significant, a paired-sample t-test was conducted (Table 3). Significant improvements were found in Scales A–D ($p < .05$), while no significant variation was observed in Scale E ($p = .727$).

VKS Scales	Mean Difference	SD	SE Mean	*p*-value
A. Unfamiliar	7.22	5.57	1.70	< .001
B. Recognized, no meaning	5.17	6.32	1.22	.012
C. Recognized, partial meaning	3.89	5.72	0.92	.044
D. Known meaning	8.67	7.99	2.04	.001
E. Use in a sentence	-0.06	0.47	0.01	.727

Table 3 Paired-sample t-test Results for Pre- and Post-test VKS (n = 18)

Overall, these results indicate that students made significant gains in receptive vocabulary knowledge (recognition and understanding of word meanings) but showed slight improvement in productive knowledge (sentence generation).

Discussion

The purpose of this study was to examine the extent to which ILH-based reading tasks enhance vocabulary knowledge acquisition and to explore how task-induced involvement influences retention. The results revealed significant gains in receptive vocabulary knowledge, particularly in recognizing and recalling the

meanings of target words, while productive knowledge (using words in sentences) remained limited.

These findings align with Laufer and Hulstijn's (2001) claim that greater involvement load promotes stronger vocabulary retention. In the present study, students engaged with all three ILH components need, search, and evaluation through structured reading tasks and exercises. The consistent improvement across VKS scales A–D supports earlier evidence that ILH-based tasks are effective in fostering receptive knowledge (e.g., Ansarin & Bayazidi, 2016; Teng & Zhang, 2021). However, the lack of progress in productive knowledge echoes Barcroft's (2006) caution that receptive activities alone may not lead to the active use of vocabulary without additional instructional support.

A critical implication of these results is the distinction between receptive and productive vocabulary acquisition. While reading tasks created meaningful involvement, they did not provide sufficient opportunities for learners to integrate target words into their own output. This finding resonates with Bao (2015), who reported that tasks emphasizing comprehension tend to favor receptive learning, whereas explicit practice and output based tasks are necessary for productive mastery. Thus, while ILH can explain why students learned to recognize and recall words, it does not fully account for the gap in their ability to use words autonomously in context.

This study contributes new knowledge by demonstrating how ILH can be systematically operationalized within reading tasks in an EFL context. Unlike prior research that focused primarily on incidental vocabulary acquisition (e.g., Rott, 1999; Read, 2000), this study designed tasks explicitly around the three ILH components, offering evidence that structured involvement can enhance word retention. Moreover, the findings highlight a practical gap: although ILH-based tasks promote learner engagement and autonomy, they must be supplemented with explicit output-oriented instruction to develop productive vocabulary use.

Implications for Teaching

The findings suggest several implications for EFL instruction. First, teachers can apply ILH principles to design reading tasks that require students to search for meanings and evaluate word use, enhancing engagement, autonomy, and vocabulary retention. Second, integrating reading activities with output-oriented

tasks such as guided writing, sentence construction, or collaborative discussion can help transform receptive knowledge into productive use. Finally, curriculum planners can use ILH to balance incidental exposure with structured involvement, embedding need, search, and evaluation while supporting productive practice to foster comprehensive vocabulary learning.

New Knowledge

This study provides new insights into the application of the Involvement Load Hypothesis (ILH) in vocabulary instruction. While previous research has mainly emphasized incidental vocabulary acquisition through reading (e.g., Rott, 1999; Read, 2000), the present study demonstrates how ILH can be systematically embedded into structured reading tasks with explicit target words. By integrating task design with the ILH components of need, search, and evaluation, the study shows that learners' receptive vocabulary knowledge can be significantly enhanced in an EFL classroom context.

A second contribution involves distinguishing between receptive and productive vocabulary development. The findings reveal that while ILH-based tasks are highly effective for recognition and recall, they do not by themselves guarantee productive mastery of vocabulary. This extends prior ILH studies (e.g., Laufer & Hulstijn, 2001; Teng & Zhang, 2021) by highlighting the necessity of additional output-based instruction to foster deeper, active word use.

Finally, this study advances pedagogical understanding by offering a practical framework for applying ILH principles into classroom activities. The findings suggest that ILH-informed tasks can enhance learner autonomy, increase engagement, and improve vocabulary retention, while also indicating that curriculum designers should combine them with explicit productive practice. Thus, the study advances both theoretical understanding of ILH and its practical application in vocabulary instruction.

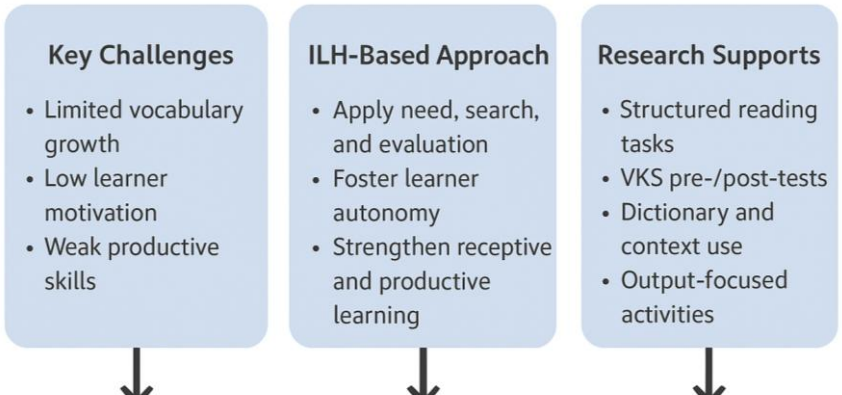

Figure 1 New Knowledge

Conclusion and Suggestion

This study examined the impact of ILH-based reading tasks on vocabulary acquisition among first-year Business English majors. The findings confirmed that reading tasks designed around the ILH components of need, search, and evaluation led to significant gains in receptive vocabulary knowledge. However, participants' performance on the highest VKS scale indicated that productive mastery of vocabulary remained limited.

These results reinforce the ILH principle that deeper task involvement promotes stronger retention. They also highlight the pedagogical importance of integrating explicit productive practice into EFL instruction. Teachers can adapt ILH-informed reading tasks to foster learner autonomy and motivation while supplementing them with guided output activities such as sentence construction, writing, or peer discussion to extend learning from recognition to use.

From a curriculum design perspective, ILH provides a practical framework for balancing incidental exposure and structured engagement. Embedding ILH-based tasks in reading programs can help create more interactive, learner-centered environments that support both receptive and productive vocabulary development. Future research could further explore how ILH-based instruction interacts with learner proficiency, task duration, and technology-enhanced learning contexts to optimize vocabulary growth.

Suggestion for Future Research

Although this study confirmed the effectiveness of ILH-based reading tasks in promoting vocabulary learning, several areas merit further inquiry. Future research should integrate ILH-based tasks with explicit instructional support such as

teacher feedback and collaborative practice to enhance productive vocabulary use. Longer intervention periods and repeated exposure are also recommended to examine the sustainability of learning gains. In addition, studies could investigate how learner variables (e.g., proficiency, motivation, metacognitive strategies) and technological tools influence ILH-driven instruction. Such research would refine the model's pedagogical applications and broaden its relevance across EFL contexts.

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