# English Vocabulary Acquisition Among High Proficiency ESL Students From ThePerspective Of Involvement Load Hypothesis 

# Pemerolehan Perbendaharaan Kata Bahasa Inggeris dalam Kalangan Pelajar ESL Berkemahiran Tinggi Dari Perspektif Hipotesis Beban Penglibatan 

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#### Abstract

Vocabulary plays a crucial part in verbal exchange and is inevitable in second languageacquisition. $A$ variety of hypotheses have been proposed to expound word acquisition; amongst the most significant and effective hypotheses is Laufer and Hulstijn's Involvement Load Hypothesis. This study investigates the effectiveness of Involvement Load Hypothesis in English vocabulary acquisition among high proficiency ESL students through three different task types (i.e., passage reading, gap-filling, and sentence writing). This study adopts the mixed-method research design. Thirty Bachelor of Arts with Honours (English Language Studies), Universiti Kebangsaan Malaysia (UKM) students were randomly assigned to these three groups to complete different tasks. All participants were given an immediate post-test after the task completion, and another spontaneous delayed post-test one week later to measure their English word learning. Qualitative data were obtained through a semi-structured interview with nine students. Results show the following: participants in the sentence writing task group (the highest involvement index: four) showed better word retention than those in gap-filling task (involvement index: two), who, in turn, performed better than participants in the passage reading task (involvement index: zero). This suggests that active involvement in vocabulary tasks ensure the success of vocabulary learning.


Keywords: Involvement Load Hypothesis, Vocabulary learning, Involvement Index, Word retention, Task type


#### Abstract

ABSTRAK Perbendaharaan kata memainkan peranan penting dalam pertukaran lisan dan tidak dapat dielakkan dalam pemerolehan bahasa kedua. Pelbagai hipotesis telah dicadangkan untuk menerangkan pemerolehan perkataan; antara hipotesis yang paling ketara dan berkesan ialah Hipotesis Beban Penglibatan Laufer dan Hulstijn. Kajian ini menyiasat keberkesanan Hipotesis Beban Penglibatan dalam pemerolehan kosa kata Bahasa Inggeris dalam kalangan pelajar ESL berkemahiran tinggi melalui tiga jenis tugasan yang berbeza (iaitu, bacaan petikan, pengisian jurang, dan penulisan ayat). Kajian ini menggunakan reka bentuk kajian kaedah campuran. Tiga puluh pelajar Sarjana Muda Sastera dengan Kepujian (Pengajian Bahasa Inggeris), Universiti Kebangsaan Malaysia (UKM) telah ditugaskan secara rawak kepada ketiga-tiga kumpulan ini untuk menyelesaikan tugasan yang berbeza. Semua peserta diberi ujian pasca serta-merta selepas tugasan selesai, dan satu lagi ujian pasca tertunda secara spontan seminggu kemudian untuk mengukur pembelajaran perkataan Bahasa Inggeris mereka. Data kualitatif diperoleh melalui temu bual separa berstruktur dengan sembilan orang pelajar.


Keputusan menunjukkan perkara berikut: peserta dalam kumpulan tugas menulis ayat (indeks penglibatan tertinggi: empat) menunjukkan pengekalan perkataan yang lebih baik daripada mereka dalam tugas mengisi jurang (indeks penglibatan: dua), yang, seterusnya, berprestasi lebih baik daripada peserta dalam petikan. tugas membaca (indeks penglibatan: sifar). Ini menunjukkan bahawa penglibatan aktif dalam tugas perbendaharaan kata memastikan kejayaan pembelajaran kosa kata.

Kata kunci: Hipotesis Beban Penglibatan, Pembelajaran kosa kata, Indeks Penglibatan, Pengekalan perkataan, Jenis tugasan

## 1. Introduction

The English language is not just the world's lingua franca; due to its importance in the new knowledge economy, English is a compulsory subject that is taught at all levels of all Malaysian schools. Bahasa Melayu is the national language of Malaysia and English is the country's official second language. Word knowledge plays a crucial part in verbal exchange, and word knowledge is a must at all levels of language acquisition. Knowing a word generally entails knowledge of its form, meaning, and use. Also, word learning is incremental in nature as some aspects of word knowledge are developed from others (Nation 2001). Noam Chomsky (1960) introduced Language Acquisition Device (LAD) as part of the nativist theory of language. This theory proposed that every child is born with a device in their brain that enables them to learn and understand languages as they grow up. However, in reality, students who have exceeded their puberty age may have difficulty to learn new words. The Critical Period Hypothesis, which was first proposed by a Montreal neurologist, Wilder Penfield, and his co-author Lamar Roberts (1959), claimed that humans are biologically capable of learning new languages before puberty. The hypothesis believes that humans are biologically unable to master a new languagefrom the aspects of new word acquisition, grammatical rules, and may not speak as well as native speakers if they acquire that specific language after puberty. Indeed, learning words is a daunting task faced by many learners of English as a Second Language (ESL) (Nation, 2006). Even though students in Malaysia started learning English formally at the age of seven (Year 1), many Malaysian university students are found to have inadequate vocabulary size that should be possessed by any university student (Ahmad Azman et al., 2010; Asgari \& Mustapha, 2012; Kamariah, Mahani \& Bordin, 2016). According to Sulaiman, Salehuddin, and Khairuddin (2018), the insufficient vocabulary size among Malaysian university students is worrisome as English is an integral tool to access knowledge particularly in academic context.

A variety of hypotheses have been proposed to expound word acquisition; amongst the most significant and effective is Laufer and Hulstijn's (2001) Involvement Load Hypothesis. The Involvement Load Hypothesis suggests that in language learning, the retention of word knowledge relies upon the learners' involvement load, that is, how the students participate in the word acquisition process; assessment with greater loads are more effective than those with lower loads. Therefore, this research aims to measure English vocabulary acquisition among Malaysian English Language Studies (ELS) students with high English proficiency through different task types from the perspective of Involvement Load-hypothesis. The objectives of this research are: (1) to identify the weight of different components of Involvement Load Hypothesis (need, search, evaluation) through different tasks, and (2) to compare and contrast the effectiveness of English vocabulary learning through different tasks by using Involvement Load Hypothesis as theoretical framework.

## 2. Literature Review

Laufer and Hulstijn (2001) proposed the Involvement Load Hypothesis from a motivationalcognitive construct of involvement, consisting of three basic components: 'need', 'search', and 'evaluation'. According to Laufer and Hulstijn (2001), involvement can be conceived as able to explain and predict learners' success in the retention of unfamiliar words.

### 2.1 Involvement Load Hypothesis and its Theoretical Assumptions

According to the Involvement Load Hypothesis, deeper levels of processing devote to more elaborative, durable, meaningful, and stronger memory traces. In short, the degree of word retention depends on the depth to which the information is first processed rather than the time spent on it. The learning of new vocabulary that involves deeper engagement as induced by tasks clearly increases the chances of word retention (Schmitt, 2008). According to Hulstijn and Laufer (2001), all three components of involvement may not be present simultaneously ina task. The combination of these components with its degree of prominence makes up the involvement load. The load of a task is the sum of the prominence degrees of three factors: need, search, and evaluation. 'Need' is the drive to finish a task; 'Search' is the try to find the meaning or form of a word; 'Evaluation' involves comparing and selecting the most appropriate definition or form, or the invention of an original context. Among these 3 components, 'Need' interdepends on the motivational degree and has two prominence levels: strong need (symbolized by 'need ++ ') is intrinsic, and moderate need ('need + ') is extrinsic. 'Search', from the cognitive dimension, has only one prominence degree and is symbolized by 'search ${ }^{\prime}$, and includes activities such as dictionary consultation, inferencing, and negotiation. The third component, 'Evaluation', is also a cognitive factor, and it has two prominence degrees. It is moderate ('evaluation + ') when the decision-making process involves only comparisons, but strong ('evaluation ++') when learner-created contexts are generated (Laufer \& Hulstijn 2001).

### 2.2 Empirical Evidence of Involvement Load Hypothesis

Involvement Load Hypothesis has induced several studies. Many researchers discovered supportive proof of it. For instance, Hulstijn and Laufer (2001), Beal (2007), Keating (2008), Kim (2008), Huang, Willson and Eslami (2012), Eckerth and Tavakoli (2012), and Mármol and Sánchez-Lafuente (2013) all discovered that tasks with higher involvement load led to better word retention. Cloze-exercises (need + , search - , evaluation + ) are less efficient in terms of word retention than writing task (need + , search - , evaluation ++ ), however they are more efficient (word retention) than reading task (need + , search - , evaluation - ). Laufer and Girsai (2008) additionally determined that translation exercises (need + , search + , evaluation $+/++$ ) bring out more positive and effective results in terms of word retention than reading tasks and cloze-exercises (need + , search + , assessment $-/+$ ). Pichette et al. (2012) observed that writing tasks with strong 'evaluation' show higher effectiveness in word acquisition than reading tasks with zero or moderate 'evaluation'. Laufer and Rozovski-Roitblat (2011) and Moonen et al. (2014) also illuminate that writing tasks with great involvement loads lead to better word retention. Additionally, Niu and Helms-Park (2014) discovered that written and oral output with higher involvement loads gave rise to appreciably better learning and mastering than elementary reading with a lower load.

Besides the above-mentioned studies, a number of studies have supported the evidence of the Involvement Load Hypothesis. According to Laufer's (2003) research showed that the task of sentence completion and dictionary consultation (need + , search + , evaluation + ) was more
efficient than sentence-writing (need + , search - , evaluation ++ ) in improving the recollection of target words, even though they conducted the same total of involvement load. Likewise, some of the studies also proposed the variety of elaborations and refinements of the Involvement Load Hypothesis. Sarbazi's (2014) research outcome supports Involvement Load Hypothesis which means that higher degree of involvement that is induced resulted in more retention of the meaning of new words. This study showed some evidence for the claim that Involvement Load Hypothesis is beneficial in L2 word learning.

However, not every result from research agrees with Involvement Load Hypothesis. A study by Li (2014) failed to support the effectiveness of Involvement Load Hypothesis. The researcher found that tasks allocated with higher involvement index did not necessarily lead to higher retention scores. Thus, she concluded that the components that Laufer and Hulstijn have proposed for grading the effectiveness of the tasks may be too simplified and idealised. Folse (2006) also questioned the possibility of the load hypothesis as the results of his study showed that the three cloze-exercises (need + , search - , evaluation + ) were more effective than one sentence-writing exercise (need + , search - , evaluation ++ ).

## 3. Methodology

This study adopted the mixed-method research design in which both the qualitative and quantitative methods of data collection were used.

### 3.1 Participants

This study involved the participation of 30 students from the Bachelor of Arts with Honours (English Language Studies) (henceforth BA ELS) programme under the Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia (UKM), Bangi campus. These 30 students are high English proficiency students who obtained at least Band 4 in their Malaysian University English Test (MUET). Their ages ranged from 22 to 27 years old. They were randomly assigned into three groups to complete different tasks. Group 1 (10 participants) were asked to complete task 1 (passage reading with underlined target words); Group 2 (10 participants) were requested to complete task 2 (gap-filling with glosses); Group 3 (10 participants) were required to complete task 3 (original sentence construction with the target words). To measure their English word learning, all participants of every group were given an immediate post-test after task completion, and another (but unexpected) delayed post-test after one week. All these tasks and tests were conducted for the collection of primary data in quantitative method. Later, three (3) students from each group were randomly selected to participate in the retrospective interview on their perspectives of the effectiveness of the assigned task types in vocabulary learning. Thus, a total number of nine students participated in the semi-structured interview for qualitative data. Google form was used as a tool to gather the participants' background information and to distribute the tasks and both post-tests.

### 3.2 Research Instruments

The instruments in this study were different task types that act as an input source of new English vocabulary to the participants in the form of text. The same target words were used in the three different tasks. Task 1: Passage reading with ten underlined target words. The reading passage was an article selected from IELTS academic reading test paper in section 1. Task 2 and Task 3 used the same target words as in Task 1. Ten target words are selected to be used in all three different task types from the above reading passage based on three criteria, i.e., unfamiliarity to
the participants, the degree of difficulty, and the accessibility for the participants to search for the meaning of the selected words as well as an appropriate translation in the participants' native language. The ten target words that were used in this experiment are: aphantasia, ironically, distraught, reminisce, chandelier, vibrant, hyperphantasia, adamant, hovering, and perilously.

### 3.3 Tasks

Three tasks with the same ten target words were designed on the notion of task-induced involvement.

Task 1: Passage reading with the target words being underlined. In this task, participants from group 1 were asked to read the selected passage without needing to perform any answering task. This task, according to Involvement Load Hypothesis had a total involvement index of 0 .

Task 2: Gap-filling with glosses of the new words provided. This task was performed by participants in Group 2. This task, according to Involvement Load Hypothesis, had a total involvement index of 2 (need + , search-, evaluation+) as the participants had the 'need' (externally imposed) to complete the task, did not have to 'search' for the meaning and form of the targeted words since the glosses were provided. Lastly, the participants would need to 'evaluate' the target words by comparing the words provided for gap-filling.

Task 3: Sentence writing with target words. The participants in Group 3 were requested to construct original sentences based on the given target words and they were allowed to use any lexical instrument such as dictionary and online applications to look for the meaning of the new words. Since there were ten target words, each participant had to construct ten sentences at the end of this task. This task, according to Involvement Load Hypothesis, has a total involvement index of 4 (need + , search + , evaluation ++ ).

### 3.4 Post-tests

An immediate post-test was administered on all participants to assess the initial learning outcome of the target words. A delayed post-test was carried out one week later without prior notice to the all participants to investigate the retention of the target words. The two post-tests were generally the same in all respects except for the arrangement of the target words. Both the immediate and delayed post-tests were carried out through in the multiple choice question format and were distributed to the participants via Google form.

### 3.5 Semi-structured Interview

Semi-structured interviews were conducted to further understand the effectiveness of English vocabulary learning through different tasks from the perspectives of participants from each group. Three participants from each group were randomly selected to participate in the semistructured online interview that was conducted via Microsoft Teams. The justification for interviewing the respondents was to gain further insights into their views of the tasks gvien to them in the study and to what extent they feel that the task has helped them in providing better retention of words.

### 3.6 Scoring

The same scoring system was used for both immediate and delayed post-tests. Specifically, the
participants were rewarded one point when they were able to remember and use the target words correctly. In contrast, no point were given if the participants answered it wrongly. Since the designed google form consisted of ten target words, the full marks for both tests were ten marks.

## 4. Results and Discussion

Results from the quantitative data that were collected from all 30 B.A. ELS high English proficiency students from the Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia (UKM) and the qualitative data acquired from the semi-structured interviews with 9 respondents were organised and presented in the form of tables. The results in this study aim to fulfill the research objectives: 1) To identify the weight of different components of Involvement Load Hypothesis (need, search, evaluation) through different tasks, and 2) To compare and contrast the effectiveness of English vocabulary learning through different tasks by using Involvement Load Hypothesis as theoretical framework.

### 4.1 Quantitative Results

The quantitative data of both post-tests were analysed and tabulated by percentage and average scores to identify which task type brings out the highest efficacy in English vocabulary acquisition and further infer the weight of the three different components of Involvement Load Hypothesis which are 'need', 'search', and 'evaluation'.

### 4.1.1 Results of post-tests

TABLE 1. Mean Scores of the Immediate and Delayed Post-test for 3 Groups

| Group | Mean score for immediate post-test | Mean score for delayed post-test |
| :---: | :---: | :---: |
| 1 | 9.4 | 9.1 |
| 2 | 9.8 | 9.6 |
| 3 | 9.8 | 9.8 |

As can be observed in Table 1, both mean scores for the immediate post-test of Group 2 and Group 3 were the highest which were $9.8(x=9.8)$ whereas the mean score for Group 1 was a little lower than the other two groups which was $9.4(\bar{x}=9.4)$. The results above indicated that Task 2 (gap-filling with glosses) and Task 3 (sentence writing) with an involvement index of2 and 4 respectively led to better word retention than Task 1 (passage reading) with an involvement index of 0 in immediate post-test. However, the mean scores of the first post-test for all three groups were too close to each other and the difference in the mean scores were not significant.

The data in Table 1 also demonstrates that: (1) all three tasks led to effective word learning among the 30 BA ELS students from the Universiti Kebangsaan Malaysia (UKM) at different degree of effectiveness; (2) participants from Group 3 who did the sentence writing task acquired the highest mean scores in both immediate and delayed post-test ( $\mathrm{x}=9.8$ ) followed by the participants from Group 2 who did gap-filling task ( 9.8 in the immediate and 9.6 for the delayed post-test), and participants from Group 1 who had completed the passage reading task had the lowest mean scores ( 9.4 in the immediate post-test and 9.1 in the delayed post-test). According to Laufer and Hulstijn's (2001) Involvement Load Hypothesis claims that tasks with higher involvement load will be more effective than those with a lower involvement load in word acquisition. In sum, these results were consistent with the Involvement Load Hypothesis,
as the tasks with greater involvement load were more effective in word learning than task with lower involvement load: sentence writing task with strong 'evaluation' were found to promote better vocabulary learning than gap-filling task with moderate 'evaluation' and the passage reading task with no involvement load.

### 4.2 Qualitative Results

In order to explore the weight of different components of Involvement Load Hypothesis (need, search, evaluation) and the perspectives of it from different participants of three different groups, five interview questions were adapted and modified. The questions are as follows:

1. Do you think that the task of passage reading with underlined target words (for participants in Group 1)/ gap-filling (for participants in Group 2)/ sentence writing (for participants in Group 3) has helped you in learning and remembering the new words? If yes, to what extent do you think it helps?
2. What do you usually do or practice to learn new English vocabulary?
3. So, you think that _ (depends on the interviewee's answer) _ has helped you the best in learning and acquire new words? How does it work?
4. In terms of 'need', 'search', and 'evaluation' which element do you think plays the most important role for one to remember a new word?
5. Among the 3 tasks (passage reading, gap-filling, and sentence writing), which one do you think can bring the highest efficacy in English vocabulary acquisition?

Three participants from each group were randomly selected to participate in the retrospective interview on their perspective of the given tasks and its effectiveness in promoting word learning. Thus, a total number of 9 students had participated in the semi-structured interview for qualitative data. Respondent 1 to 3 were from Group 1 (passage reading); 4 to 6 were from Group 2 (gap-filling) and 7 to 9 were from Group 3 (sentence writing).

### 4.2.1 Analysis of the responses of the interview's question one: the effectiveness of the assigned task in English vocabulary acquisition

Two respondents from Task 1 felt that the passage reading task with underlined target words without any prior instruction given to take note of the underlined words (to avoid 'need' component from present) were not helpful in word retention as they did not feel the 'need' to learn or predict the meaning of the underlined words. The other respondent from Task 1 thought that the passage reading task has helped her in the retention of words with her background knowledge and personal experience that could help her to remember the unfamiliar words in the passage. Since Task 1 has an involvement load of zero, these responses from the participants of Group 1 are very much in line with the Involvement Load Hypothesis which holds that the retention of vocabulary in language learning is conditional upon its involvement load, that is, the extent of the students' involvement in the task of word learning, and tasks with higher involvement load are more effective than those with lower loads.

All three respondents from Group 2 agreed that the task of gap-filling with glosses provided was helpful in word retention. Task 2 of gap-filling with the meaning of the target words given has helped in the reinforcement of memory. The respondents felt the 'need' to fillin the blanks to complete the task and they need to 'evaluate' and compare among the word choice given to look for the best answer. Therefore, Task 2 has an involvement load of 2 due to the present of 'need' and moderate 'evaluate' in the gap-filling task.

Three respondents from Group 3 strongly believed that the task of original sentence writing has significantly helped them in remembering the new words. Respondent 7 and Respondent 9 emphasised that the initiatives they took to 'search' for the meaning of the words helped them to learn and to remember the new vocabulary more effectively. Respondent 8 stated that she could still remember the words even 2 weeks after the completion of the task and she continued to apply those new words in her essays. All the three components of Involvement Load Hypothesis, that are, 'need', 'search', and 'evaluation' were present in the original sentence writing task as the participants would 'need' to learn or know the meaning of the target words; 'search' for the meaning of the target words through any lexical instrument on their own, and finally; 'evaluate' the appropriateness and suitability to use the specific word for their sentence construction. The 'evaluation' in Task 3 was a strong one compared to the moderate 'evaluation' in Task 2 (gap-filling) as Task 3 required the participants to construct original sentences from one's mental lexicon.

### 4.2.2 Analysis of the responses of the interview's question two \& three: the usual way for respondents to learn new English vocabulary

Based on the responses from the nine respondents, all of them learn new English vocabulary in their respective way: some prefer reading newspapers, novels, academic material; some might choose to learn through listening to music; browsing the social media and so on. However, all of the nine respondents mentioned that they will take the initiative to 'search' forthe meaning of the unknown words when they came across that. Questionably, what makes them take the action of searching the words? According to the responses above, most of them felt the 'need' of knowing or learning unfamiliar words for a better understanding of the contextof a passage; social media post; lyrics etc. For example, Respondent 7 stated that "If I did not understand some particular unfamiliar words, I will search them out to understand what are they talking about." Respondent 1 said that she will only sometimes look for the meaning of the unknown word during her reading on people's tweets on Tweeter. These implies that one will take the initiative to 'search' for the meaning or more explanation of a word when he or she feels the 'need' to do so. The 'need' might come from the desire to understand: one's postor statement on social media; the context from a passage; the intention to learn new words through specific tasks and etc.

Other than 'search', the component of 'evaluation' was also explored during the semistructured interview with these nine respondents. Interestingly, some of them adopted the component of 'evaluation' in their learning process of a new word after they have got to know the meaning of the word. Besides 'need' and 'search', respondents 4, 5, 8 , and 9 had practised the 'evaluation' component in their word learning; they tend to make notes of the new word, its usage in sentence construction, and would try to use those new words in their future writing. This word learning activity involves a total involvement load of 5 with the presence of all the three components of Involvement Load Hypothesis: strong 'need' (degree of involvement=2) when the learner decided to learn the word; 'search' for the meaning of the words independently (degree of involvement $=1$ ); and 'evaluate' the new word by comparing it with other words in self-provided context (degree of involvement=2).

### 4.2.3Analysis of the responses of the interview's question four: the most significant component for one to remember a new word

Five out of nine of the respondents (55.6\%) rated 'evaluation' as the most important component for one to remember a new word:

Respondent 3: "I think 'evaluation' plays the biggest role because if you compare aword with other words and you try to relate it with your self-experience actually could help you to remember it better. 'Need' and 'search' are important as well, but not as important as the 'evaluation' component as they are subset of 'evaluation'."

Respondent 5: "I think 'evaluation' is important to me. As I think, if you just look up for the word and then you look at the meaning, you might not remember it by yourself but if you evaluate and comparing to other words that has a similar meaning and then you will remember those words better."

Respondent 7: "Actually, I think all those three components play an important role forme to remember the words. But I think the 'evaluation' component plays the biggest role for me as it required me to have a deeper level of thinking and compare and contraston the word choice in order to create my own sentence. So I think I will remember moreof the word."

Respondent 8: "I think definitely 'evaluation', because 'evaluation' lets us to understand the word by itself and how to match it in sentences and involve a higher level of analysis."

Respondent 9: "Obviously, the 'evaluation' I guess, because like the meaning of 'evaluation' itself, you got to apply those two elements before it, like, you will first have a 'need' to 'search' for it (the meaning of the unknown word) and in the end, youknow how to apply the words in the sentences or in the spoken form."

Interestingly, 'search' was not the most chosen component to promote word retention the best, as all respondents claimed that they used to 'search' for the meaning of the unknownword in their usual word learning process (when answering to question 2 and 3 previously). In fact, more than half of them felt that 'evaluation' is the main key for one to remember a word longer as it involves a more in-depth level of thinking process in our brain that enhances our memory. Moreover, some of them assumed 'search' and 'need' as the subsets of 'evaluation'. Only three out of nine respondents thought that 'search' is important in word learning and two of them stated that 'search' is equally important as 'need' in vocabulary acquisition. From the gathered perspectives, the importance of 'search' seems less significant in one's English vocabulary acquisition.

Three respondents rated 'need' as the most important component for one to remembera new word. This is because, they felt that a learner's motivation is very important; when one feels the 'need' to learn a new word, it will eventually lead them to the element of 'search' and 'evaluation'. So, they think that 'need' is the basic element to ignite one's willingness to learna new term and further takes the action to 'search' and 'evaluate' the words.
4.2.4 The analysis of the responses of the interview's question five: the most effective task among passage reading, gap-filling, and sentence writing in English vocabulary acquisition
$55 \%(\mathrm{n}=5)$ of the nine respondents believed that sentence writing is able to bring the highest efficacy in English vocabulary acquisition for them. This thought is actually consistent with Involvement Load Hypothesis as the task of sentence writing holds the greatest involvement load / index of 4 compared to passage reading (involvement index $=0$ ) and gap-filling (involvement index=2). All respondents from Group 3 who did the sentence writing task believe that it is the best task for word learning compared to the other two tasks as sentence writing involved understanding, comparison, and deeper level of thinking skills. Respondent 2 from Group 1 and Respondent 5 from Group 2 chose sentence writing task over the other two tasks too. Most respondents who regarded 'evaluation' as the most significant component for one's word acquisition chose the task of sentence writing as the task that promote better word retention. This is because, original sentence writing involves strong 'evaluation' as mentioned earlier.

Three out of the nine respondents ( $33.3 \%$ ) felt that gap-filling task is the most effectivetask among the three tasks in English vocabulary acquisition. For example, Respondent 1: "In my opinion, gap-filling is important in vocabulary acquisition because sometimes it involves higher level thinking." The response from Respondent 1 that stated gap-filling task is crucial in word learning as it sometimes required the respondent to think deeper. This is because, apart from the 'need' for one to learn the word in order to fill in the blanks correctly; this task involvea moderate level of 'evaluation' too as the word is compared with other provided words. Respondent 3 and Respondent 6 also thought that gap-filling is the best task type for one to learn new words due to the presentce of 'evaluation' that required the respondents to think critically by comparing the word choices given.

Only one respondent (Respondent 4) chose passage reading as the most effective task in English vocabulary acquisition as she personally loves reading books. However, she did emphasise that she learned better by learning the vocabulary from the context, as she can compare the usage of the words in the context as well. Without her realisation, she has incorporated the component of 'evaluation' in her reading habits as she constantly compared the usage of a variety of words based on her background knowledge with the context. This would be a moderate 'evaluation'.

### 4.3 Discussion

The results of this study are meant to answer the research objectives, namely, to identify the weight of different components of Involvement Load Hypothesis (need, search, evaluation) through different tasks, and to compare and contrast the effectiveness of English vocabulary learning through different tasks by using Involvement Load Hypothesis as theoretical framework.

To answer the first research question, the analysis of both quantitative and qualitative data show that the 'evaluation' component of Involvement Load Hypothesis weighed the most in terms of the effectiveness of English vocabulary acquisition among high English proficiency students. The mean scores of the immediate post-test for both Group 2 (gap-filling) and Group3 (sentence writing) were the highest which were 9.8 ( $\mathrm{x}=9.8$ ). Both tasks involved the 'evaluation' components at a different degrees whereas gap-filling involved only a moderate level of 'evaluation' while sentence writing involved a strong level of 'evaluation' as the task required engagement and comparison of lexical word in one's mind. The effectiveness of
'evaluation' has been proven in the delayed post-test. The participants from Group 3, who did the sentence writing task, acquired the highest mean scores in both the immediate and delayed post-test ( $\mathrm{x}=9.8$ ) followed by the participants from Group 2, who did the gap-filling task ( $\mathrm{x}=9.6$ ); participants from Group 1, who had completed the passage reading task, had the lowest mean scores ( $\bar{x}=9.1$ ) in the delayed post-test. The qualitative data gathered from the semistructured interview show that most respondents (55.6\%) felt that 'evaluation' is the most important component among 'need', 'search', and 'evaluation'. Moreover, from the last question of the interview on the most effective task among passage reading, gap-filling, and sentence writing in English vocabulary acquisition, eight out of nine respondents (88.9\%) chose tasks with the 'evaluation' component which are gap-filling and mainly, sentence writing, as the most effective task that promotes word learning.

Responding to the second research question, this research has identified the most effective task types among passage reading, gap-filling, and sentence writing in terms of vocabulary acquisition and its similarities and differences from the allocated task types that influence the degree of English vocabulary acquisition by using Involvement Load Hypothesis as theoretical framework. Both quantitative and qualitative data supported that the task of sentence writing is more effective than the other two tasks. Besides than the highest mean score for both post-tests from the participants in Group 3 (sentence writing), $55 \%$ of the interviewed respondents ( $\mathrm{n}=5$ ) strongly believed that sentence writing has greatly helped them in the word learning as it required them to be involved in a more in-depth thinking process in their mind to perform 'evaluation'.

## 5. Summary and Recommendations

In sum, all the three tasks showed differences in the delayed post-test. These results were consistent with the Involvement Load Hypothesis, as the sentence writing task with strong 'evaluation' in past studies have been found to promote more effective word learning than 'gapfilling' with moderate 'evaluation' and statistically significant enhanced the students' word retention than the passage reading task with zero involvement index. Results showed the following: participants in the sentence writing task group (the highest involvement index: four) showed better word retention than those in gap-filling task (involvement index: two), who, in turn, performed better than participants in the passage reading task (involvement index: zero). This suggests that tasks with higher involvement loads were associated with greater word retention. The hypothesis of the Involvement Load Hypothesis is supported in this research.

The results of this study demonstrate that sentence writing task with strong 'evaluation' is highly effective in the retention of the ten target words in both post-tests. Therefore, it is suggested that task types with higher involvement load and strong level of 'evaluation' like original sentence writing can be involved in the process of vocabulary acquisiton for students or self-learner.

Future studies are needed to improve upon the hypothesis and reach its full potential. For future studies, it is suggested to involve more students for a larger simple size so that the results can be generalised. Besides, the possibility of more tasks with different combination of involvement loads could be further explored with a longer time gap between the post-tests. Further research experiment along these lines would be productive, especially with the aim of improving the generalisability of results for better word learning experience among Malaysian students.

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