RESEARCH ARTICLE

The Use of Incidental Vocabulary Learning Strategies Among High and Low Proficiency Year 6 ESL Learners

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ABSTRACT

Vocabulary Learning Strategies (VLSs) are widely implemented in the learning of English as a second language (ESL). Hence, VLSs are helpful in aiding learners to develop their vocabulary effectively, not only in the classroom but also out-of-classroom, according to the learners' needs. This study aims to investigate the use of vocabulary learning strategies in incidental learning among high and low proficiency Year 6 ESL learners. The sample of this study are 30 Year 6 ESL learners from a primary government school in Bandar Baru Bangi. A mixed method was employed, and purposive sampling was used for this study. Data was collected through a 26-item questionnaire based on Schmitt's Taxonomy of Vocabulary Learning Strategies Questionnaire (VLSQ) and semi-structured interviews. The findings indicate that high proficiency learners "watch English media" the most and the "use of flashcards" as the least favoured. In contrast, low proficiency learners prefer "asking parents or family members for the meaning of words" and "reading English newspaper, magazines and books" the least. Although no significant differences were found in overall strategy use between high and low proficiency groups, metacognitive strategies were employed significantly more by high proficiency learners. Both high and low proficiency Year 6 ESL learners also perceive technology tools and multimedia as effective for incidental learning by using YouTube, social media platform, online games, use of sub-titles and digital dictionaries. Further research on a larger scale among primary school learners is recommended to inform teachers about the application of vocabulary learning strategies, particularly in incidental learning.

Contribution/Originality: This study contributes the field of ESL education by identifying the vocabulary learning strategies employed by high and low proficiency Year 6 learners in incidental learning. It also highlights the effectiveness and usage patterns of vocabulary learning strategies by offering insights for educators to enhance vocabulary acquisition in diverse learning contexts.

1. Introduction

English is a global lingua franca, used across a wide range of fields such as education, business, entertainment, and information technology (Yen & Mohamad, 2020; Tayyebi, 2021). In Malaysia, English serves as a second language (L2) and it is important for English as a second language (ESL) learners to have extensive vocabulary for effective communication (Adan & Hashim, 2021). Vocabulary acquisition is foundational for learning a second language as it supports proficiency in the four core language skills: reading, writing, speaking, and listening (Abdulrahman & Basalama, 2019). Without a strong vocabulary, learners often face significant challenges in these areas, particularly in reading comprehension and oral communication (Alsharif, 2022). Research by Chen et al. (2019) demonstrates that learners with a broader vocabulary tend to achieve better outcomes across different aspects of language learning. Therefore, ensuring learners focus on vocabulary acquisition early in their English learning journey is essential for long-term success.

In the Malaysian context, the use of English begins as early as preschool, reflecting the critical role of English in the country's education system. However, despite years of exposure to the language, many Malaysian ESL learners still struggle with limited vocabulary which leads to poor overall performance in English (Sari & Abdulrahman, 2019). The Malaysian Ministry of Education (MoE) has undertaken numerous initiatives to enhance English language teaching and learning, but the proficiency levels of students remain unsatisfactory.

Developing vocabulary in a classroom setting can be a long-term and challenging process for ESL learners (Xodabande, Pourhassan & Valizadeh, 2022). Therefore, to develop a substantial amount of vocabulary, language learners typically require more than just classroom instruction. For this reason, incidental learning is considered highly effective, especially for learners who have limited classroom time or need to expand their vocabulary more rapidly than formal instruction (Nation, 2001). The digital revolution provides many more opportunities for incidental vocabulary learning particularly using multimedia resources which include reading online, using social media, watching and online games. In this process, learners often deduce word meanings from context, especially when exposed to engaging materials such as television, books, or online media (Feng & Webb, 2020) and acquire a broader range of vocabulary without consciously focusing on learning new words.

However, learners may not fully retain the words they encounter without the use of effective strategies. Therefore, Vocabulary Learning Strategies (VLSs) is particularly important in language learning as they promote self-directed learning which allow learners to take control of their vocabulary development (Oxford, 1990). Studies suggest that young learners who employ language learning strategies effectively tend to acquire vocabulary more efficiently, improving their overall language proficiency (Ahsanah, 2020; Gursoy & Eken, 2018). The shift in pedagogy towards student-centered learning places even more importance on learners' ability to select and use the most appropriate strategies for their own language development (Hanafiah et al., 2021). By doing so, learners can enhance their ability to acquire vocabulary more efficiently during incidental learning.

While many studies have explored VLSs among secondary and tertiary students, less research has focused on younger learners, particularly at the primary level. It is also

essential to examine how high- and low-proficiency learners differ in their use of VLSs especially in incidental learning. These differences could provide insights into how learning strategies can be tailored to meet the diverse needs of learners, as suggested by Azmimurad and Osman (2019). Therefore, this study aims to explore the use of vocabulary learning strategies in incidental learning among high- and low-proficiency Year 6 ESL learners in a Malaysian primary school context.

1.1. Research Objectives

This study seeks to achieve the following objectives:
  i. To identify the types of incidental vocabulary learning strategies employed by high and low proficiency Year 6 ESL learners
  ii. To identify the most and least used incidental vocabulary learning strategies among high and low proficiency Year 6 ESL learners
  iii. To investigate the perceptions on the effectiveness of using incidental vocabulary learning strategies among high and low proficiency Year 6 ESL learners

Aligned with the objectives mentioned above, this study attempts to answer the following research questions:
  i. Are there significant differences in the types of incidental vocabulary learning strategies employed by high and low proficiency Year 6 ESL learners?
  ii. What are the most and least used incidental vocabulary learning strategies among high and low proficiency Year 6 ESL learners?
  iii. What are the perceptions on the effectiveness of using incidental vocabulary learning strategies among high and low proficiency Year 6 ESL?

2. Literature Review

2.1. Vocabulary Learning

In the early days, vocabulary learning and teaching were given little importance and was not popular (Nation, 1990). However today, the significance of vocabulary in language learning has gained greater recognition in recent times, due to its role in acquiring a second or foreign language (Alqarni, 2019). According to Jaikrishnan and Ismail (2021), vocabulary is defined as a collection of words that one knows and understands the meaning. Webb (2007) believe learners who possess an extensive vocabulary are at a significant advantage when learning a foreign language compared to those with a limited vocabulary. Learning new words in new language is not just a matter of committing them to mastery but also how to use the words appropriately. Nation (1990) identifies two main approaches to vocabulary learning: intentional and incidental learning.

2.1.1. Intentional and incidental learning

Intentional learning involves explicit language learning activities focused on acquiring new vocabulary (Kongprab, 2019). According to Danilina and Shabunina (2020), intentional vocabulary learning often leads to more rapid and effective outcomes, as well as a higher likelihood of retention. The use of traditional teaching of vocabulary, such as making lists of English words, recite new words and composing sentences with target can be categorized as intentional learning since they concentrate on the words to be learned without connecting them to a broader context (Schmitt, 2000). Schmitt (2010) defined incidental learning as knowledge that emerges naturally from using a language

without the intention of mastering a certain linguistic trait. Incidental vocabulary learning has been found to occur through various mediums, including captioned videos, multimedia reading environments, and online collaborative tasks (Asllani & Paçarizi, 2021).

Schmidt (1990) believes that two factors play a significant role in determining whether learners engage in incidental or intentional learning of a second language: the degree of consciousness and the presence or absence of direct attention. Consciousness refers to the extent to which learners notice and process new information in the input, while direct attention refers to whether learners are actively paying attention to the input. In incidental learning, learners are unlikely to notice L2 rules consciously, whereas in intentional learning, learners are more likely to do so. According to Nation (1990), a significant amount of time should be devoted to incidental vocabulary learning rather than direct lexical-learning activities. However, Sok (2020) asserted the combination of two kinds of learning methods benefits more than either method, and works better when incidental learning follows intentional learning.

2.2. Incidental Vocabulary Learning

The technological revolution of the 21st century has transformed the way language skills, particularly vocabulary, are learned by student. The process of incidental vocabulary learning is influenced by factors such as learners' prior vocabulary knowledge, working memory, and the specific context in which the learning takes place (Teng, 2022). The exposure ESL learners receive from such input have an impact on one's vocabulary way before the beginning of school. Feng and Webb (2020) carried out a study among English as a Foreign Language (EFL) university students. They found that watching TV programmes was just as effective as reading and listening in learning new words. Extensive reading also has been proven to be an effective method for second language learners to acquire vocabulary, as demonstrated by numerous studies (Horst, 2005). This type of reading exposes learners to rich input and enjoyable learning experiences, which can result in the acquisition of new vocabulary through incidental exposure. Additionally, Pavia et al. (2019) have found that listening to music, especially through repeated and frequent exposure, can enhance vocabulary knowledge.

2.3. Vocabulary learning in ESL classroom

Vocabulary acquisition has become increasingly important for second and foreign language learners (Shokrpour et al., 2019). However, learning English vocabulary can be a daunting task for some young ESL learners, as it requires considerable effort in memorisation and repeated use of words. To develop proficiency in language learning, these words must be mastered and effectively employed. Hence, it is essential to lay a solid vocabulary foundation from an early age, especially for young learners. Despite studying English for eleven years throughout primary and secondary education, Malaysian students continue to exhibit poor proficiency in the language (Darus & Subramaniam, 2009). Lee, Krishnamoorthy and Rong (2019) observe that learners in Malaysia frequently encounter difficulties in comprehending and conversing in English with their teachers and peers who possess a higher level of English competence. Additionally, a lack of sufficient knowledge of English language vocabulary can lead to demotivation and ultimately result in learners not attempting to learn the language (Kho et al., 2021).

The challenge of mastering a vast vocabulary is considerable large for primary school students who need to learn the first 1000 high-frequency words and secondary students who need to learn an additional 2000 words (Hadi ur Rahman & Xihuang, 2020). However, L2 learners do not have the same opportunities for massive exposure that is needed to acquire a similar number of words due to a lack of practice (Krishnan & Yunus, 2019) and limited classroom application opportunities (Rafiah et al., 2016). Moreover, teachers often do not have enough time to teach all the words that learners need to know to function effectively in an L2 (Webb & Nation, 2017). Hence, it is crucial for teachers to provide students with vocabulary learning strategies to acquire vocabulary outside of the classroom setting. By doing so, second language learners can develop the necessary skills to master a target language (Prichard, 2020).

2.4. Vocabulary Learning Strategies

Vocabulary Learning Strategies (VLSs) are specific actions or behaviours accomplished by students to enhance learning (Oxford, 1999). Meganathan et al. (2019) defined VLSs as a set of techniques, methods, approaches, or attitudes that learners of English as a second language (ESL) deliberately employ to facilitate their learning in second language learning. Studies have shown that VLSs are essential in helping language learners acquire new vocabulary effectively (Ahmed, 2017), take control of and manage their vocabulary development process (Melanlioğlu, 2020) and has proven to have positive effects on students' vocabulary knowledge and overall language proficiency, despite the limitations of teaching all words to meet students' needs (Efklides & Volet, 2020). Although teachers play a pivotal part in offering direction and fostering learning, it is ultimately up to individual learners to proactively seek out effective strategies to enhance their vocabulary. If learners possess a range of VLSs, they can tackle new or unfamiliar vocabulary without much difficulty, as VLSs provide a simplified approach to vocabulary learning. However, the effectiveness of these strategies may vary depending on a number of factors, including the learner's proficiency level, the learning environment, and characteristics (Schmitt, 1997).

2.5. Taxanomy of Vocabulary Learning Strategies by Schmitt (1997)

Amongst the various classifications of vocabulary learning strategies, Schmitt's (1997) taxonomy is considered one of the most thorough and elaborate systems available. Schmitt's (1997) taxonomy was developed based on Oxford's (1990) classification model. It expanded upon Oxford's (1990) two main areas of vocabulary learning strategies by introducing five subcategories, which encompass Determination, Social, Memory, Cognitive, and Metacognitive strategies.

Determination strategies include guessing the meaning according to structural knowledge or guessing from context where learners can explore the meaning of unfamiliar vocabularies independently. Social strategies involve social interaction. engaging with others to learn or practice new vocabulary. On the other hand, memory strategies involve associating new words with the learner's existing knowledge by categorising the target new words according to its form or topics, studying spelling or pronunciation of the word remain in the memory. Cognitive strategies prioritize mechanical means to comprehend known word by using repetition and tools to learn vocabulary that include creating word lists, making flashcards, and labelling English words on physical objects. Lastly, metacognitive strategies involve awareness of the learning process and the learner's ability to control and select effective learning

strategies by being exposure to written materials in the target language, viewing movies or television shows in the target language, or reading books, magazines, or newspapers.

2.6. Past studies on vocabulary learning strategies

Research has shown the use of VLS varies with proficiency. A study by Benedict and Shabdin (2021) among 67 English undergraduate students, both high and low-proficient in language, revealed that high proficient learners utilize a greater variety of strategies when acquiring vocabulary, in contrast to less proficient learners. Samperio's (2019) indicate that high and low achievers use similar strategies. However, high achievers spent their time more effectively and monitored their performance based on their practices. In contrast, low achievers did not demonstrate these effective time management and self-evaluation skills. A study by Ghalebi et al. (2021) among Iranian learners found that high-proficiency ESL learners used cognitive and metacognitive strategies, while low-proficiency learners relied more on determination and social strategies. Kho et al. (2021), in their studies, found that primary school learners employed all five strategies for vocabulary learning to a moderate extent. Cognitive strategies were the most popular among primary school learners, while social strategies were used the least. According to the study, the preference for cognitive strategies was due to their mechanical approach to learning new vocabulary through techniques such as memorizing words, which was preferred by the learners. Additionally, the study suggested that primary school learners had a high perception of memory retention when learning new vocabulary. Zaidi et al. (2022) conducted a study to identify the least and most used vocabulary learning strategies preferred by high, medium, and low proficiency learners diploma programmes students at Universiti Teknologi MARA, Perak. The results showed that students preferred guessing in context and dictionary strategies the most, while metacognitive regulation, note-taking strategies, rehearsal strategies, encoding strategies, and activation strategies were less preferred. The findings indicated that due to a lack of English proficiency, students were able to encounter new words without fully understanding their meaning or consolidating them in memory. However, this study did not provide specific information on the differences between high, medium, and low proficiency learners in their use of vocabulary learning strategies.

3. Research Methods

3.1. Research Design

This study employs a mixed-methods approach (Creswell, 2014) to identify the use of incidental vocabulary learning strategies among high and low proficiency Year 6 ESL learners. Mixed methods combine both quantitative and qualitative data to provide a more comprehensive understanding of the research objectives.

3.2. Research Participants

In selecting the participants, the researcher employs the use of purposive sampling. Purposive sampling involves deliberately selecting respondents who can provide relevant information to address the research objectives (Etikan, Musa & Alkassim, 2015). A sample size of 30 students was selected due to participant availability, feasibility within the study's timeline, and the resources available for data collection and analysis. The sample comprised 30 Year 6 ESL learners from a single class with mixed

proficiency at a primary school in Bandar Baru Bangi. All participants had a minimum of five years of experience in English language learning. Permission was obtained from the school's administration to conduct the study, and informed consent was secured from both parents and participants to ensure ethical compliance and protect the rights of all participants involved in the research.

3.3. Research Instrument

3.3.1 Vocabulary Learning Strategies Questionnaire (VLSQ)

The instrument used for data collection is a questionnaire based on Schmitt's (1997) Taxonomy of Vocabulary Learning Strategies Questionnaire (VLSQ) to elicit students' preferences for vocabulary learning strategies. The 26-item questionnaire consists of two sections: the demographic profile and five parts covering the five vocabulary learning strategies: determination, social, memory, cognitive, and metacognitive strategies. The response options consist of a 3-point Likert scale, with 1 = Never, 2 = Sometimes, and 3 = Always.

3.3.2. Open-ended interview

An open-ended interview was conducted with the participants to obtain their responses on the students' perception on the effectiveness of using vocabulary learning strategies in incidental learning. 10 students comprising of 5 low proficiency and 5 high proficiency learners were selected from the same sample for the interview. The interview was conducted through Google Meet and lasted approximately 20 minutes.

3.4. Data Collection and Data Analysis

The quantitative data from the questionnaire were analysed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics, including means and standard deviation for each item, were calculated to determine participants' most used and least used of VLSs. Additionally, an independent samples t-test was conducted to compare the differences between the type of VLSs used in incidental learning.

For the qualitative data, all interviews were audio-recorded with the consent of the participants and their guardians to ensure accuracy in data capture. The recordings were then transcribed and analysed using thematic analysis (Braun & Clarke, 2006), a method that involves identifying, analysing, and themes within the data.

4. Results and discussion

The results and discussion section will be organized into two primary parts. The results section will present the data analysis based on the information collected from both the questionnaire and the interviews conducted with the participants.

4.1. RQ1: Are there any significant differences between the type of incidental vocabulary learning strategies used among high and low proficiency Year 6 ESL learners?

The results of the descriptive analysis are presented in Table 1 where high proficiency learners (M = 2.09, SD = 0.0358) demonstrated a higher overall use of VLS compared to

low proficiency learners (M = 1.96, SD = 0.858). Among high proficiency learners, metacognitive strategies were most frequently used (M = 2.22, SD = 0.370), followed by social strategies (M = 2.18, SD = 0.404). Cognitive strategies were least frequently employed (M = 1.97, SD = 0.406). In contrast, low proficiency learners favoured social strategies (M = 2.15, SD = 0.499), followed closely by determination strategies (M = 2.08, SD = 0.345). Metacognitive strategies were least utilized by this group (M = 1.88, SD = 0.399).

Table 1: Descriptive Statistics for the overall types of VLS Used by high and low proficiency Year 6 ESL learners

Category	High Proficiency			Low Proficiency		
	Mean	SD	Rank	Mean	SD	Rank
MET	2.22	.370	1	1.88	.399	5
SOC	2.18	.404	2	2.15	.499	1
COG	1.97	.406	5	1.98	.406	3
DET	2.04	.337	3	2.08	.345	2
MEM	2.05	.343	4	1.92	.353	4
Overall VLS	**2.09**	**.0358**		**1.96**	**.858**	

Note: High Proficiency=22; Low Proficiency= 8

In order to determine whether there is any difference for both high and low proficiency Year 6 ESL learners, an independent t-test was conducted. The results are revealed in Table 2. An independent t-test was conducted to determine whether there were any significant differences between high and low proficiency learners in their use of VLS. The results (Table 2) revealed no statistically significant differences in overall strategy use between the two groups across four categories: social strategies (p = .859), cognitive strategies (p = .989), determination strategies (p = .748), and memory strategies (p = .406). However, a significant difference was found in the use of metacognitive strategies (p = .036), with high proficiency learners using them significantly more than low proficiency learners.

Table 2: Independent Samples t-test for the use of VLS by Proficiency

Category	Group	N	M	F	Sig.	T	Df	Sig. (2-tailed)
Metacognitive	H	22	2.22	.000	.996	-2.203	28	.036
	L	8	1.88					
Social	H	22	2.18	.722	.403	-.179	28	.859
	L	8	2.15					
Cognitive	H	22	1.97	.000	.984	.014	28	.989
	L	8	1.98					
Determination	H	22	2.04	.140	.711	.325	28	.748
	L	8	2.08					
Memory	H	22	2.05	.339	.565	-.844	28	.406
	L	8	1.92					

Significance at level≤ 0.05

High proficiency learners tend to set clear learning goals and regularly evaluate their progress, which helps them gain greater confidence and proficiency in English. This finding is consistent with studies by Alamri (2019) and Solano et al. (2019), which also found that metacognitive strategies were favored by upper-intermediate and advanced

learners. Furthermore, metacognitive strategies are particularly relevant for digital natives, who are typically more technologically savvy, creative, and independent than previous generations (John et al., 2021). These learners often prefer to take charge of their learning, utilizing self-regulation and reflective practices. This likely explains why high proficiency learners are more inclined to adopt metacognitive strategies, which contribute to their autonomy and overall language proficiency.

4.2. RQ2: What are the most and least used incidental vocabulary learning strategies among high and low proficiency Year 6 ESL learners?

To answer the research question, descriptive statistics of all five strategies are tabulated. The results of descriptive analysis are presented in Table 3 and Table 4.

Table 3: The most and least frequently used VLS by high proficiency learners

	No	Strategy	VLS Category	Mean	SD	Rank
The Most	B3	I learn new words by watching English-speaking movies/tv shows/videos.	MET	2.73	.456	1
	B20	I look at pictures or gestures to understand new words.	DET	2.73	.550	2
	B5	I develop my vocabulary knowledge by using the Internet.	MET	2.45	.510	3
	B21	I use phone application to look up meanings of new words.	DET	2.45	.510	4
	B6	I ask my parents or family members for the meaning of the word that I do not understand.	SOC	2.41	.666	5
	B26	I study the spelling of words.	MEM	2.41	.796	6
	B2	I learn new words by reading English newspaper, magazines and books.	MET	2.36	.581	7
The Least	B19	I use flash cards to learn new English words.	DET	1.32	.568	26
	B1	I learn new words by listening to English songs.	MET	1.45	.739	25
	B12	I make my own list of words I learn from surroundings.	COG	1.45	.510	24

The findings in Table 3 revealed that the most frequently used vocabulary learning strategies among high proficiency learners are learning new words by watching English-speaking movies, TV shows, or videos (MET) with the mean score of 2.73. Similarly, using pictures or gestures to understand new word (DET), ranked equally with the mean score of 2.73. Other top strategies involve using the Internet to develop vocabulary (MET) and using phone applications to look up the meanings of new words (DET), both with a mean score of 2.45. Conversely, the least used strategies among high proficiency learners included using flashcards to learn new English words (DET) with the mean score of 1.32. Other least strategies included making word list learned from

surroundings (COG) and learning new words by listening to English songs, (MET) with the mean score of 1.45.

Watching English-speaking movies, TV shows, and videos, along with utilizing the internet, were the most preferred strategies among high proficiency learners. This result coincides with Benedict and Shabdin (2021), indicating that highly proficient learners use metacognitive strategies to improve their vocabulary. Furthermore, Ali and Razali (2019) emphasized that metacognitive strategies indirectly enhance learners' motivation by enabling them to monitor their language learning progress consistently. In addition, the variety of new technologies available on the internet, including social media platforms and other online resources, facilitates language learning. The effectiveness of multimedia in vocabulary acquisition also aids learners in acquiring a substantial amount of vocabulary while improving their listening and writing skills (Alolaywi, 2023).

Moreover, the effectiveness of determination strategies, such as using pictures or gestures, is particularly noteworthy. These strategies enable learners to infer meaning through contextual clues, aligning with findings by Panduangkaew (2018), who demonstrated that learners frequently use visual aids to understand unfamiliar words. This suggests that high proficiency learners value deeper processing strategies that require inferencing, yet they also incorporate more straightforward, accessible methods like gestures and visual cues, as suggested by Melek and Akcayoglu (2020).

The use of phone applications to look up new words is another determination strategy used by high proficiency learners. Young learners do not have many sources of language thus using phone application to learn new word is another way of getting language input. The popularity of apps like Google Translate may motivate students even more. In addition, the use of contextual clues by high proficiency learner may reflect a more autonomous and comprehensive approach to vocabulary learning. This preference for digital resources could be attributed to the increased availability and accessibility of the internet, which can be further enhanced through technology integration in vocabulary acquisition (Tan et al., 2022). In conclusion, these findings align with Khatimah (2022), who confirmed that metacognitive and determination strategies are often employed by many language learners, underscoring the importance of social interaction and contextual learning in vocabulary acquisition, particularly among low proficiency learners.

On the contrary, the limited use of flashcards to learn new words may reflect the learners' preference for context-based learning rather than isolated word memorization. High proficiency learners likely perceive flashcards as less effective because they do not offer the depth and contextual richness of other strategies, such as multimedia or interactive methods. This finding aligns with research by Mustapha and Mohd Hatta (2022), who also found that flashcards were among the least commonly employed strategies by learners.

The findings in Table 4 revealed that the most frequently used vocabulary learning strategies among low proficiency learners are asking parents or family members for the meaning of the word that they do not understand (SOC) with the mean score of 2.63. This is followed by learning new words by watching English-speaking movies/tv shows/videos (MET) and asking parents or family members to make a sentence by using the new word (SOC) with the mean score of 2.38 are similarly utilized by participants for

learning new vocabulary as the second most preferred. Learning new words by reading English newspapers, magazines, and books (MET) with the mean score of 1.50 is the least popular strategy indicating it is not a favoured method for these learners. The use of flash cards at home (DET), making own word list (COG) and learning new words by listening to English songs (DET) all share the same mean score of 1.63 showing minimal variation and a general lack of preference for these methods.

Table 4: The most and least frequently used VLS by low proficiency learners

	No	Strategy	VLS Category	Mean	SD	Rank
The most	B6	I ask my parents or family members for the meaning of the word that I do not understand.	SOC	2.63	.518	1
	B3	I learn new words by watching English-speaking movies/tv shows/videos.	MET	2.38	.744	2
	B8	At home, I ask my parents or family members to make a sentence by using the new word.	SOC	2.38	.747	3
The least	B2	I learn new words by reading English newspaper, magazines and books.	MET	1.50	.535	26
	B19	At home, I use flash cards to learn new English words.	DET	1.63	.518	25
	B12	I make my own list of words I learn from my surroundings.	COG	1.63	.518	24
	B1	I learn new words by listening to English songs.	MET	1.63	.518	23

The findings indicate that social strategies are most frequently used by low proficiency Year 6 ESL learners. This aligns with Chan and Aziz (2021), who stated that less proficient learners tend to utilize social strategies. The social strategies that were most frequently used by Year 6 ESL in this study were: (1) Ask parents or family members for the meaning of words and (2) Ask parents or family members to make a sentence by using the new word. Learners who lack proficiency in the language might find it easier and more comforting to seek the meanings of words from their parents or family members as they may not possess the necessary skills to employ alternative vocabulary learning strategies. One possible reason for this can be explained by the Socio-Cultural Theory where parents are seen as more knowledgeable others (MKOs) who can scaffold the learning process. As Kozulin et al. (2003) and Abtahi et al. (2017) demonstrated, such parental involvement significantly enhances children's cognitive development and academic performance. The learners' behaviour also exemplifies operation within Vygotsky's Zone of Proximal Development (ZPD), where they achieve more with guidance than they could independently (Ohta, 2000). This preference for social support is consistent with findings from studies on less proficient learners by

Kayaoglu (2013). However, social strategies can be helpful, but too much reliance on them might restrict learners' capacity for self-directed learning and hinder their ability to tackle new vocabulary on their own.

Metacognitive strategies ranked as the second most frequently used approach among low- proficiency Year 6 ESL learners. These low proficiency learners have employed this strategy more frequently to acquire new vocabularies, possibly due to their interest in watching English movies with subtitles. This finding is consistent with Benedict and Shabdin (2021) and suggest that these millennial learners, despite being low-proficiency, rely on various technological media for learning (Sohrabi & Iraj, 2016) and a shift towards more contextualized and technology-enhanced vocabulary learning approaches, as noted by Taj et al. (2017).

Conversely, reading English newspaper, magazines and books which falls under metacognitive strategy is the least used by low proficiency learners. This could be attributed to the perceived difficulty of these materials for less proficient learners and highlights the need for scaffolded reading activities to encourage engagement with authentic texts.

4.3. RQ 3: What are the perceptions on the effectiveness of using incidental vocabulary learning strategies among high and low proficiency Year 6 ESL?

To answer the third research question open-ended interviews were conducted with 10 Year 6 ESL learners aged 12 years old, five among them were high proficiency learners and five were low proficiency learners. Two main themes emerged: 1) Engaging Multimedia Enhances Learning and 2) The Use of Technology Aided. The results are presented according to themes and sub-themes, as shown below.

4. 3.1. Theme 1: Engaging Multimedia Enhances Learning

a) Sub-theme 1.1: The use of audiovisual materials

Audiovisual materials can be accessed through various platforms like television, on-demand streaming services such as Netflix, and YouTube, and have been acknowledged as being rich, authentic, and invaluable as well as providing real-life situations and circumstances for learning a language (Bednarek, 2018). Based on the interview all participants watch Youtube videos and Netflix at home. Most of them acknowledge by watching Youtube videos they learn English faster. P10, mentioned *"I think watching TV or YouTube helps me remember new words better. I remember it because I'm enjoying what I'm doing."* Watching audiovisual materials can also help grasp the sound of words, and retain meaning of word or expression as stated by P4 added that he associated the meaning of word with the situation that word used in. "*I relate the words about reptiles with what I saw in Crocodile Hunter."* Another participant, P3 also shared her experience of learning a new word while watching Netflix. "*…I came across a word I never heard before. The word was anxiety. Later, I watched a movie called Inside Out and I heard the word anxiety again. The character's name was Anxiety. I tried to guess the meaning of the word by looking at the characters' facial expression and its action."* The findings concur with Silviyanti (2014) that watching videos is stimulating and advantageous as it supports them in practicing the words uttered by native English speakers.

b) Sub-theme 1.2: Gaming and Interactive Learning

Interactive gaming emerged as an engaging method of incidental vocabulary learning, especially among the younger learners. Based on the interview, participants agreed that playing online games helped them in learning vocabulary. Roblox was mentioned by majority of participants especially the boys. It is an online game that helped them improve and make use of the English language. P4 explained Roblox helped him to improve his language skills, *"When I play Roblox, I chat and give commands in English. It helps me improve my speaking skills and learn to make proper sentences."* Online games can also be a useful tool to enhance higher order thinking skills, content comprehension, and social abilities during the learning process. P1 asserted, *" I have to talk to other players and this encourages me to use English often.* A study conducted by Katemba and Sinuhaji (2021) demonstrated that the use of online games significantly enhanced vocabulary acquisition. Additionally, a study conducted by Thomas and Brown (2011) revealed that online games can serve as an effective means for enhancing critical thinking abilities, improving understanding of content, and developing social skills within the learning environment. This is particularly relevant for language learners who may find vocabulary acquisition to be tedious and repetitive, especially those who have grown up in the digital age.

The findings also showed that students develop positive attitudes and are motivated to learn through games. According to P6, "*This motivates me to keep learning because it's something I enjoy*". This aligns with Zou et al. (2019) which indicated that online games can increase students' interest, attention, motivation, and engagement. Participants also agree that they don't feel pressure during the process. P6, added "*I am having fun while learning something new."* This aligns with Li et al.'s (2019) findings, which found that students benefited from the pleasure and stress relief offered by online games.

c) Sub-theme 1.3: Social Media

Social media platforms, like Facebook, Tiktok, Twitter and Instagram, provide students with numerous chances to encounter and learn new vocabulary daily. By interacting with these platforms, learners can broaden their vocabulary and retain new words more effectively. The significance of visual context in retaining vocabulary was emphasized P3, *"I've learned many new words by reading posts about Palestine on social media, like 'atrocities,' 'genocide,' and 'ceasefire.' Seeing these words used with images helps me remember their meanings."* This is the process of visualisation which involves constructing mental images that facilitate the learning of new vocabulary and enhance overall reading comprehension and retention (Scurletis, 2009).

Moreover, social media platforms offer learners exposure to a wide range of vocabulary through various forms of user-generated content. P5 shared, *"I read the post and read other people's comments which are mostly in English. Sometimes I use the sentence or quotes that I found."* Alharthi et al. (2020) highlights the potential of social media as valuable resources for enhancing language learning, as they foster learners' engagement, motivation, and vocabulary growth.

4.3.2. Theme 2: Use of Technology-aided

a) Sub-theme 2.1: Digital dictionaries

All participants preferred using online tools, such as Google Translate or an online dictionary, rather than physical paperback dictionaries. Sometimes they *googled* it or use online dictionary. P10 asserted, *"I usually look it up on my phone. I either use a dictionary app or just Google it."* When asked about the use of paperback or digital, most participants mentioned they usually use the Oxford dictionary in the classroom, but they rarely use it at home as they have access to internet.

Modern technology, like smartphones and digital tools, offers many benefits to language learners, including time-saving access to word definitions. It is therefore not surprising that young learners rely heavily on digital dictionaries when learning English. P5 mentioned, *"I use dictionary apps on my handphone and look for the meaning of words. It helps me to save my time as I don't have to open the dictionary."* P9, stated *"I use my tablet and use Google search engine. The internet is super helpful for learning new words because I can look up what they mean right away."* Apart from that, P3 believed she learnt better with all digital technologies. *"I use Google Translate to look up new words I encounter. Sometimes, I guess the meaning by understanding the sentence, and other times I ask my mom for the meanings and translations. This helps me learn what the word means and how to use it."* The findings align with Govindasamy et al. (2019) where the use of digital dictionaries improve vocabulary when compared to a printed dictionary.

b) Sub-theme 2.2: Enhancing Vocabulary Through Subtitles

Most of the participants utilised English subtitles while viewing films or television programmes. It is noteworthy that subtitles aided learners in comprehending spelling, pronunciation, and generally assisted in word recognition. P5 mentioned *"Sometimes I could not understand what the person says because they talk too fast. I use sub-titles for better understanding of the context."* Another participant, P1 also added *"... with subtitles, it's easier to assist me in understanding their pronunciation".* Likewise, P6, mentioned, *"Sometimes I use the English sub-titles so that I know how the words are said and spelt.".* According to Yulia and Fazaki's (2023) research, watching English TV series with subtitles can significantly enhance students' vocabulary, as the visual and auditory inputs from movies and TV shows provide a rich context for learning new words.

From the interview, majority of participants agree that using subtitles allows them to correct pronunciation, remember words easily, and guess meaning of words through facial expression or intonation. P3 stated *"...I make a wild guess of the word just by looking at the face, intonation or gestures."* P9, mentioned, *"I have difficulty in understanding spoken English words especially if the slang is different. I would pause the video to hear how to say the word and how to spell at the same time. It helps me a lot."* These findings are in line with Harmer (2013), who stated learners were able to match intonation with facial expression, gestures with certain phrases while viewing. However, at the same time, learners can be too dependent on the subtitles and less attentive to the content and authentic use of English language. This may cause an issue especially for lower level of English competence (Szarkowska et al., 2016).

The result from the interview reveals that both high and low proficiency ESL learners perceive incidental vocabulary learning strategies as effective, particularly those involving engaging multimedia and technology-aided tools. This aligns with the growing body of research suggesting that technology and multimedia can significantly enhance language learning experiences (Alharthi et al., 2020; Feng & Webb, 2020, Zou et al. 2019).

5. Conclusion

This study concluded that there are no differences in the use of VLSs among high and proficiency learners. However, there was a slight difference on the use of metacognitive strategies where it was employed significantly more by high proficiency learners than the low proficiency learners. Metacognitive strategies are preferred among high proficiency learners by watching English-language media. On the other hand, low proficiency learners prefer using social strategies by asking parents or family members for word meanings and reading English newspaper, magazines and books the least. However, using flashcards and creating word lists were among the least used strategies across both proficiency levels. This indicates a move away from traditional methods which involve rote memorization towards more interactive and technology- enhanced approaches.

Despite of the learner's proficiency, exposure to various mediums including television and multimedia platforms have helped learners to acquire more vocabulary through incidental learning and the revolution in technology of the 21st century has shifted the way language learning is acquired. This indicates that technology is becoming an important part in today's vocabulary learning and has provided positive effects on both high and low proficiency Year 6 ESL learners. As today's learners are digital natives, it is found that Year 6 ESL high and low proficiency learners use YouTube, social media, Roblox, use of sub-titles and digital dictionaries during incidental learning. Moreover, they perceived incidental vocabulary learning strategies as contributing to long-term development in their vocabulary acquisition which increases learners' independence and heightened motivation. Hence, the use of technology and multimedia resources should be utilised more extensively and efficiently, especially at the primary school level to produce both good speakers and autonomous learners.

6. Recommendations

This research only involved Year 6 ESL learners in one school only and thus the results may only be relevant to this group of learners. Moreover, the study also aimed to compare the vocabulary learning strategies used by learners with different levels of proficiency (high and low proficiency) who were studying in this school. Further research on a larger scale among primary school learners is recommended to inform teachers about the application of vocabulary learning strategies, particularly in incidental learning.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research Ethics Committee of Universiti Kebangsaan Malaysia (RECUKM). All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants according to the Declaration of Helsinki.

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