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Vocabulary Learning in Reading Comprehension: Learners' Perception of the Use of Morphemic Analysis and Contextual Clues Strategies

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ABSTRACT

Vocabulary knowledge plays an important role in reading as its limitation may affect comprehension. Appropriate learning strategies should be taught for vocabulary and reading comprehension development. The objective of this study was to investigate the learners' perceptions in using Morphemic Analysis and Contextual Clues Strategies during reading comprehension. The participants comprised 34 Year 6 learners from a primary school in Johor Bahru. They were selected through purposive sampling and divided into Group A that went through six enrichment sessions on Morphemic Analysis Strategy and Group B that went through six enrichment sessions on Contextual Clues Strategy. Each session was conducted for 50 minutes twice a week. Based on a mixed method design, the instruments were questionnaire and interview. Morphemic Analysis and Contextual Clues Strategies were found to be helpful in developing reading comprehension and vocabulary learning but there were also some learners who did not find them to be useful. As such, both strategies could be implemented to help learners in developing reading comprehension and vocabulary knowledge, depending on the learners' needs and preferences in learning.

Keywords: Contextual clues strategy, morphemic analysis, reading comprehension, vocabulary learning

1.0 INTRODUCTION

Learning vocabulary in a second language (L2) is a complex process because it involves not only comprehension of words but also how they sound and are spelled, in addition to other features like appropriate register, grammar, what the words collocate with and how often the words appear (Ryan, 2006). While recognising new words does not secure that they will be learnt (Nielsen, Daugaard, Scavenius & Juul, 2022), research shows that there is a vast difference between learners' immediate and delayed understanding of L2 vocabulary taught (Ko, 2012) where there are significant time effects on the results of vocabulary test over time (Mohamad Deli, Ghareeb-Ali & Al-Houti, 2013). Extensive research has also shown that vocabulary learning is very much neglected in language learning as it is the least well catered for and systematised (Aravind & Rajasekaran, 2020). There is also unclear evidence of how stimulating which word learning can be successful (Nielsen *et al*., 2022). Language teachers also differ in opinion about facilitating effective and efficient vocabulary learning (Fudhla, Solusia & Oktoviandry, 2020) both at elementary and high school levels (Chang, Li & Lu, 2021). Thus, there is a mismatch

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between the intricacy of vocabulary development and what research has been able to demonstrate about vocabulary instruction in general which signifies the need to further examine vocabulary learning based on the perceptions of learners.

In particular, examining the use of vocabulary learning strategies through reading instruction has the potential to uncover what strategies work best for different learners. Knowing the preferred strategies are beneficial considering the huge number of words in English. Nation (2013) explained that readers should know 4000-word families to have sufficient comprehension of novels, newspapers, and children's movies. For example, the word "watch", "watches", "watching" and "watched" are words of the same word family. If learners could understand the base word which is "watch", they could understand other words of the same family with little or no extra effort in L2 (Bauer & Nation, 1993). Nation (2013) identified 14 types of strategies in vocabulary learning which include noticing, retrieving, analysing words, and using context. Gu (2003) reviewed vocabulary learning through dictionary use, learning from context, rote rehearsal and encoding. Despite suggesting various strategies, both researchers acknowledged learning vocabulary through context is an imperative way.

As vocabulary is embedded in reading, vocabulary learning strategies may be achieved through the bottom-up and top-down approaches. The bottom-up process focuses on letter and sound recognition, which builds the learners' foundation in reading (Anderson, 2003). Alternatively, the top-down process is an active process that requires the learners to use their background knowledge to comprehend texts (Hudson, 2011). It is highly encouraged to explicitly teach suitable vocabulary learning strategies to learn a L2. This may improve learners' ability to use different strategies and enhance the learning of vocabulary in L2 (Afni, Kasim & Muslem, 2019; Nielsen *et al*., 2022).

Although vocabulary learning strategies could be instilled at any level in L2 instruction, the need to improve its quality among younger learners is imperative (Manyak, Manyak & Kappus, 2021) as "vocabulary learning is a prolonged endeavour that should begin at school entry or before," (Hadley & Mendez, 2021, p.45). Nielsen *et al*. (2022) recommended explicit teaching of morphological and contextual analysis to facilitate vocabulary learning through reading. Thus, this study attempted to investigate the perceptions of the use of vocabulary reading strategies among a class of L2 primary school learners. The class was devided into two groups, where one group was taught to use the morphemic analysis strategy and the other the contextual clues strategy.

2.0 LITERATURE REVIEW

In reading for young learners, activities emphasizing decoding of sounds in words through reading aloud are commonly practiced (Cooper & Kiger, 2009). Chitravelu, Sithamparam and Teh (2005) pointed out that the issue of reading arises when reading is regarded as the ability to sound the words on the page, whereas reading involves far more than decoding words. While decoding and comprehension happen at the same time, "vocabulary learning is not merely the learning of word labels, but of interconnected network of knowledge about the world" (Hadley & Mendez, 2021, p.45). Harrison (2004) asserted that reading comprehension concerns not only vocabulary but also understanding of the relationship between structural elements which are the words, concepts, or propositions and explicit vocabulary learning through reading may help cultivate independent learners (Aravind & Rajasekaran, 2020).

Bottom-up and top-down processes are two common models in reading (Harmer, 2002). The combination of the models is called interactive process, which is a more recent trend in the teaching of reading as both processes are essential for reading development (Nielsen *et al*., 2022). The bottom-up process refers to understanding a text from the fundamental basics of letters and sound, morpheme, and word recognition. Through this model, L2 learners could learn to break individual complex words into manageable parts and observe the connections between related words in sentences so that they can estimate meaning (Nielsen *et al*., 2022). Top-down process requires readers to apply their prior knowledge to the text to construct meaning and arrive at a definition. This model allows L2 learners to use knowledge of the context to interpret the text and has been proven to improve vocabulary learning of language learners (Fudhla, Solusia & Oktoviandry, 2020). Morphemic Analysis Strategy is based on the bottom-up process while Contextual Clues Strategy applies the top-down process.

Morphemic analysis awareness is important in language skills like vocabulary, spelling, and reading comprehension. It helps learners to spell words more accurately, promotes vocabulary growth as it brings about stronger word attack and vocabulary skills and contributes to better reading comprehension (Jarad, 2015; Khodadoust, Aliasin & Khosravi, 2013; Nagy, Berninger & Abbot, 2006) through vocabulary learned. Nagy and Anderson (1984) clarified that many English words comprised two or more morphemes like prefixes, suffixes, and roots. Morphemic Analysis Strategy in this study involves eight prefixes as shown in Table 1.

Table 1 Prefixes used in the Morphemic Analysis Strategy

Morphemic Analysis Strategy	
Family Word	**Prefix**
Not Family	*'dis', 'un', in and 'im'*
Number Family	*'mono', 'bi' and 'semi'*
Below or Part Family	*'sub' and 'under'*
Again and Remove Family	*'re' and 'de'*
Before and After Family	*'pre' and 'post'*
Against Family	*'anti' and 'counter'*
Excess Family	*'over', 'super' and 'out'*
Bad Family	*'mis' and 'mal'*

Each family includes a few prefixes. Not family includes 'dis', 'un', in and 'im'. Number family involves prefixes 'mono', 'bi' and 'semi'. Below or part family has two prefixes: 'sub' and 'under'. Again and remove family include 're' and 'de' prefixes. Before and after family focus on 'pre' and 'post' prefixes. Against family refers to 'anti' and 'counter'. Excess family has three prefixes, namely 'over', 'super' and 'out'. Bad family focus on 'mis' and 'mal'. As the learners could understand the morphemes and vocabulary, they could progress into syntactic level or larger texts. These words are discovered as learners read more sophisticated texts (Nagy & Townsend, 2012).

Jalaluddin, Mat Awal and A. Bakar (2008) discovered that Malaysian learners usually commit morphology-related errors in both inflections and derivations. They found that prefixes and suffixes make up to 60% of the total grammatical mistakes in vocabulary made as learners may not be familiar with the affixes and roots in the vocabulary. Thus, explicit instruction should support learners' use of strategies. Nevertheless, limited studies have explored morphemic awareness in vocabulary acquisition despite knowing its importance (Khodadoust, Aliasin & Khosravi, 2013). This study explored L2 learners' perceptions in applying the strategy for vocabulary learning and reading comprehension.

Contextual Clues Strategy encourages the readers to make informed guesses about the meanings of unfamiliar words with the help of contextual clues (Jelic, 2007). Readers may not grasp the dictionary definition based on Contextual Clues Strategy, but they may have an idea of the meaning and arrive at an approximate definition. Contextual Clues Strategy is an important strategy, considering the volume of words in English (Mokhtar & Mohd Riawan, 2012). Flemming (2007) highlighted four types of contextual clues: synonym, antonym, example, and logic clues.

Contextual clues reading strategy could develop reading comprehension, improve vocabulary acquisition, enhance vocabulary memory retention and increase amount of reading. Contextual Clues Strategy has been discovered to have positive effect on L2 learners' reading comprehension performance (Gorjian, Hayati & Sheikhiani, 2009) because the strategy draws their attention to comprehend cloze passages.

It also improves vocabulary acquisition when readers infer the meanings of words during reading (Steele & Watkins, 2010). Contextual clues help readers to pronounce, recall and provide the meanings of words during oral definition tasks. Moreover, learning vocabulary within context promotes understanding and memory retention, even after two weeks (Kaivanpanah & Rahimi, 2017) as new information related to existing knowledge assists internalization of vocabulary within context when readers employ deep comprehension (Caccamise, Friend, Groneman, Littrell-Baez & Kintsch, 2014).

However, Mokhtar and Mohd Riawan (2012) and Ramadan (2014) found that readers with limited vocabulary knowledge were unable to guess and understand the meaning of words in context accurately in comparison to the group with high language proficiency. Similarly, Nassaji (2006) found that L2 learners with wider vocabulary knowledge were able to use certain strategies more often than those learners with limited vocabulary because inferring word meanings from text is challenging.

Briefly, Morphemic Analysis and Contextual Clues Strategies are possible strategies to develop reading comprehension and vocabulary knowledge among L2 learners. However, different learners may have different preferences in the use of the strategies.

3.0 METHOD

This study employed mixed method research design. Qualitative in the form of interview and quantitative through questionnaire were utilised for data collection. Questionnaire was chosen to obtain data from all participants while interview was selected to obtain in-depth perspectives of the strategies.

A total of 34 year-six learners from a primary school were selected through purposive sampling. They could understand simple English. However, they often faced problems in reading comprehension. They achieved a score between Grade C, D or E in reading comprehension for the mid-semester examination. They were divided into Group A with 16 participants and Group B with 18 participants.

The developed questionnaire had nine items based on a 3-point Likert scale and was specifically designed based on Morphemic Analysis and Contextual Clues Strategies respectively. Data obtained from the questionnaire were analysed using SPSS (Statistical Packages for the Social Sciences) Version 20.0. To investigate its internal consistency, the Cronbach's alpha test was carried out with three learners who were not involved in this study. It was found that the Cronbach's alpha coefficient for overall questionnaire items was .875 for Morphemic Analysis Strategy questionnaire and .874 for Contextual

Clues Strategy questionnaire. Therefore, the instrument was regarded to have a high level of internal consistency.

For each strategy, 10 randomly selected participants from each group went through a semi-structured interview. The findings from the interview were transcribed to provide rich support for the quantitative data.

Six 50-minute enrichment sessions were conducted twice a week. Group A went through Morphemic Analysis Strategy enrichment sessions while Group B went through Contextual Clues Strategy enrichment sessions. After the sixth session, the questionnaire was administered, and interview sessions were conducted.

Table 2 Instructional content for Morphemic Analysis Strategy and Contextual Clues Strategy

Lesson	Morphemic Analysis	Lesson	Contextual clues
	Practice session		Practise session
1	Not family Number family	1	Synonym
2	Below/part family Again/remove family	2	Antonym
3	Before/after family Against family	3	Logic
4	Excess family Bad family	4	Example
5	Review lesson 1 and 2	5	Review lesson 1 and 2
6	Review lesson 3 and 4	6	Review lesson 3 and 4

Table 2 shows the instructional content for Morphemic Analysis and Contextual Clues Strategies used in this study. Both enrichment sessions included an introduction that comprised an overview with examples of the strategy followed by explicit verbal instruction and guided practice. Lastly, a practice session that included independent practice of the strategy learned was given.

The target vocabulary for Morphemic Analysis and Contextual Clues Strategies were selected from the American Heritage Word Frequency Book (Carroll, Davies & Richman, 1971), a corpus of American school English for learners of Grades 3 to 9. The book was chosen for its worth as a corpus driven research effort. Twenty words that were matched according to the Standard Frequency Index (SFI) were selected for each strategy. Hence, the target words taught through both strategies were ensured to have similar level of difficulty. This is a measure of word frequency across the various texts included in the corpus.

4.0 RESULTS AND DISCUSSIONS

Learners' perception towards the Morphemic Analysis and Contextual Clues Strategies could be observed through the questionnaire and interview responses. To illustrate, if the percentage for a positive item is high, this shows that the learners agree with the statement. Similarly, a high percentage for a negative item would indicate that learners disagree with the statement.

Morphemic Analysis Strategy

Learners in this group answered nine items in the questionnaire. All items were analysed by calculating the percentage and classified into two categories namely learners' perception of the strategy and effectiveness of the types of strategies.

Category 1: Perception of the strategy

Table 3 Learners' Perception on Morphemic Analysis Strategy

Items	Agree(%)	Neutral(%)	Disagree (%)
1. Morphemic analysis strategy helped me to answer questions in reading comprehension.	75.00	12.50	12.50
2. I can understand most of what I read if I use morphemic analysis reading strategy.	56.25	12.50	31.25
3. I feel confident to read in English by using morphemic analysis strategy.	31.25	43.75	25.00
4. Morphemic analysis strategy was easy to understand.	56.25	18.75	25.00
5. I feel that I was given enough time in class to practice the morphemic analysis strategy before I had to use it on my own.	62.50	25.00	12.50
6. I think it is difficult to understand English even if I use morphemic analysis strategy.	25.00	25.00	50.00
7. I do not think that I will use morphemic analysis strategy again.	18.75	18.75	62.50
8. Morphemic analysis strategy confused me.	12.50	31.25	56.25

Table 3 presents the percentage for 8 items in the questionnaire on the learners' perceptions on the effectiveness of the Morphemic Analysis Strategy in vocabulary learning and reading comprehension. Items 1 to 5 are positive items with percentage that ranged between 31.25% to 75.00% on the agree scale, 12.50% to 43.75% on the neutral scale and 12.50% to 31.25% on the disagree scale. Items 6 to 8 are negative items with percentage that ranged between 18.75% to 31.25% on the agree scale, 18.75% to 31.25% on the neutral scale and 50.00% to 62.50% on the disagree scale.

The percentage of the agree scale for first item is 75.00%, suggesting that most learners agreed that Morphemic Analysis Strategy helped them to answer questions and they were able to perform better in reading comprehension. The results are consistent with the interview. When the learners were asked the following two questions on Morphemic Analysis Strategy: "What do you think about the strategy?" and "Do you think the strategy helped you to understand English? Why?", the typical responses were as shown in Tables 4 and 5.

Table 4 Positive Feedback on Morphemic Analysis Strategy

Question: "What do you think about the strategy?"	
Learner	**Positive Feedback**
A	*This strategy is very useful for me. Because before learning the strategy, I do not know. After learning it, I know more about phrases and words.*
D	*I think the strategy can help me to understand English a little bit … I am not sure. I only know this word [prefixes] can let me understand vocabulary better.*
Question: "Do you think the strategy helped you to understand English? Why?"	
Learner	**Positive Feedback**
A	*Because there are some words that are more difficult, I do not know their meaning. So, after learning the strategy, I can understand the meaning of the words.*
B	*Yes. I can learn more vocabulary. I can know which words could match with the other words. So, I can know many words.*
E	*Yes. It will help us to understand vocabulary in English.*

Table 5 Negative Feedback on Morphemic Analysis Strategy

Question: "What do you think about the strategy?"	
Learner	**Negative Feedback**
F	*Not sure. … Because I know some of them and do not know some of them … Too difficult.*
B	*It confused me. There are some words I do not understand.*
Question: "Do you think the strategy helped you to understand English? Why?"	
Learner	**Negative Feedback**
D	*A little bit. I can understand more word meaning. I am not sure how it helps.*
F	*I think no. It is complicated.*

Based on the questionnaire and interview, learners who provided positive feedback perceived that the Morphemic Analysis Strategy helped them in answering questions in reading comprehension. The learners explained that the strategy was helpful in comprehending new vocabulary. This is because knowing the prefixes helped in understanding the word meaning. The finding was consistent with the studies done by Talerico (2007), Baumann *et al.* (2002), Jarad (2015), Khodadoust, Aliasin and Khosravi (2013), Kieffer and Box (2013), Nagy, Berninger and Abbot, (2006), and Zhang and Koda (2013). These studies found that learners were able to improve vocabulary acquisition through comprehending different parts of words. Hence, the strategy is widely applicable.

Despite the positive feedback on the strategy, negative comments were also noted. Based on the participants' responses, the strategy had its limitations as they could not comprehend some of the difficult vocabulary even after applying the strategy and the use of the strategy was difficult for them. Jarad (2015) deduced that the learners may have faced problems with the complexity and irregularity of morphemic analysis, thus roots and affixes would not be helpful in all circumstances. As such, learners may face difficulty in understanding English vocabulary if they could not master the strategy.

As can be seen in Item 3 in the questionnaire, learners did not seem to improve their confidence level in learning the language as the percentage was only 31.25% on the agree scale. This was in contrast with the study done by Jarad (2015) as the learners in his study improved in their confidence level. This was probably because the learners in the present study encountered some words that were difficult for them which was different from Jarad's study, where the learners were overwhelmed with the feeling that the

words could be easily understood by dividing the words into the component parts when decoding their meanings. Likewise, learners in the present study did not find the strategy influential in building their confidence to read in English.

The findings illustrate different responses given about Morphemic Analysis Strategy. Learners who gave positive comments about Morphemic Analysis Strategy found it helpful in understanding new vocabulary as they could understand the meaning of the prefixes and were able to apply them to understand the meaning of the words. This has also helped them in reading comprehension. However, learners who provided negative feedback found the strategy complicated. As such, they were not able to apply it to help them to understand English. Thus, some learners perceived that the strategy was helpful for them but there were also learners who did not find it to be useful.

Category 2: Effectiveness of the types of morphemic analysis strategies.

The questionnaire also focused on the effectiveness of each type of Morphemic Analysis Strategy involved in the study. The learners were exposed to the types of strategies throughout the enrichment sessions with example and practices. The percentage for agree, neutral and disagree for all items on the effectiveness of the strategies are shown in Table 6.

Table 6 Effectiveness of the Types of Morphemic Analysis Strategy

Items	Agree(%)	Neutral(%)	Disagree(%)
The strategies help me to understand English words.			
• Not family	75.00	18.75	6.25
• Before and after family	68.75	18.75	12.50
• Number family	68.75	12.50	18.75
• Below or part family	56.25	31.25	12.50
• Again and remove family	56.25	37.50	6.25
• Against family	50.00	43.75	6.25
• Excess family	50.00	25.00	25.00
• Bad family	43.75	31.25	25.00

Generally, the percentage on the agree scale fall between 43.75% to 75%, on the neutral scale is from 12.50% to 43.75% and disagree scale is from 6.25% to 18.75%. Among all the word-family, not family has the highest percentage (75%) indicating that learners thought that the not family is the most effective among all word families. This is followed by before and after family and number family with the percentage of 68.75%.

Also, this result is consistent with findings from the interviews. Table 7 shows the responses of the learners to the question: "Among all the word families, which one do you prefer?"

Table 7 Preference of Word Families in Morphemic Analysis Strategy

Learner	Response
C	*Not family. ... It is easy to understand.*
F	*Before and after family ... It is simple.*
L	*Number family. ... I can remember the number.*

Based on the explanation given, the learners mentioned that "Not-family", "Before and after-family" and "Number-family" were among the most useful word-families for them. This was because the learners found it simple and easy to understand these word-families. Also, they could remember the meaning of the prefixes which gave them the clues to understand the meaning of the words. The learners were encouraged to employ a variety of reading strategies. This is done to develop their awareness and ability to make use of different strategies, as skilled readers use more strategies in various categories than less-skilled readers (Cekiso & Madikiza, 2014).

In short, Morphemic Analysis Strategy did help the participants of this study in developing reading comprehension by understanding the word meaning through parts of the word which were the prefixes. This could be related to the bottom-up process that examines reading comprehension through route words. However, there were learners who provided negative feedback about the strategy which showed that the strategy in general was able to support the learners but with limitation, such as retention of the meaning of prefixes and application of the strategy to various situations.

Contextual Clues Strategy

The findings from the questionnaire for the Contextual Clues Strategy were also classified into two categories, which were perception of the strategy and effectiveness of the types of strategies. Table 8 presents the percentage for the items in the questionnaire on the learners' perception on the Contextual Clues Strategy.

Category 1: Perception of the strategy.

Table 8 Learners' Perception on Contextual Clues Strategy

Items	Agree(%)	Neutral(%)	Disagree(%)
1. Contextual clues strategy helped me to answer questions in reading comprehension.	77.78	5.56	16.67
2. I feel confident to read in English by using contextual clues strategy.	55.56	5.56	38.89
3. I can understand most of what I read if I use contextual clues strategy.	55.56	5.56	38.89
4. Contextual clues strategy was easy to understand.	55.56	11.11	33.33
5. I feel that I was given enough time in class to practice contextual clues strategy before I had to use it on my own.	66.67	16.67	16.67
6. I think it is difficult to understand English even if I use contextual clues strategy.	33.33	22.22	44.44
7. Contextual clues strategy confused me.	11.11	11.11	77.78
8. I do not think that I will use contextual clues strategy again.	11.11	33.33	55.56

Based on Table 8, that highlights the learners' perception of the Contextual Clues Strategy, the percentage for the positive items, which are Items 1 to 5, ranged from 55.56% to 77.78% on the agree scale, 5.56% to 16.67% on the neutral scale and 16.67% to 38.89% on the disagree scale.

The first item had the percentage of 77.78% on the agree scale, indicating that around three quarters of the learners agreed that the strategy helped them to answer questions in reading comprehension. Items 2, 3 and 4 have the same percentage (55.56%) on the agree scale. This suggests that around half of the participants perceived the strategy as easy for them to understand and they were confident to use it. Item 7, which is a negative item has the percentage of 11.11% on the agree scale but 77.78% on the disagree scale, suggesting that most learners disagreed that the strategy confused them. To support these findings, Table 9 and 10 show the learners' responses in the interview for the following two questions about Contextual Clues Strategy: "What do you think about the strategy?" and "Do you think the strategy helped you to understand English? Why?".

Table 9 Positive Feedback on Contextual Clues Strategy

Question: "What do you think about the strategy?"	
Learner	**Positive Response**
B	*Good… It is easy for us to find the words to understand the meaning.*
D	*Very good. It is easy to understand.*
Question: "Do you think the strategy helped you to understand English? Why?"	
Learner	**Positive Feedback**
A	*Yes. If there some words that I do not understand the meaning, I will try to look for their meaning through the words that I know their meaning.*
B	*Yes. If I read, I would read back the words and find the clues for the word.*

Table 10 Negative Feedback on Contextual Clues Strategy

Question: "What do you think about the strategy?"	
Learner	**Negative Feedback**
A	*It's normal. I considered it as the new method that I have not come across.*
F	*Not very sure. If the vocabulary is not too difficult to understand, I can use the method. But if the vocabulary is too difficult, then I cannot understand.*
Question: "Do you think the strategy helped you to understand English? Why?"	
Learner	**Negative Feedback**
C	*I am not sure.*
D	*A little bit. I don't know.*

Based on the learners' responses, the strategy was helpful for learners who were able to master it by applying it while reading, as they learned to read the passage again to look for the clues that helped them to understand it. Kermani and Seyedrezaei (2015) explained that learners may be able to read and deduce meaning of particular words from the context by themselves. The learners mastered the skills to infer meaning from context as they read (İlter, 2019; Tuyen & Huyen, 2019).

From the interview responses, the learners who perceived that they had mastered the strategy were able to apply it for vocabulary learning and reading comprehension probably because the strategy was simple and easy for the learners to use. Mahmoud (2016) highlighted that a strategy that could be easily used can become a contributing factor for the learners to comprehend meaning. Therefore, the findings of this study showed that generally the strategy was perceived as useful. However, the learners who do not find the strategy easy to use faced difficulty in trying to comprehend the reading text in the English

language. This could be attributed to some learners' perception that more practice time was needed as indicated in Item number 5 in the questionnaire. Although 66.67% of the learners agreed that they were given enough time to practise the strategy, it is likely that if more time and practice are given before the strategy is used independently, the strategy could be employed effectively by most learners. As pointed out by Mahmoud (2016), training received by learners is important to prepare them to use the strategy. Thus, sufficient time and practice are necessary to provide the learners with more experience and to further develop their confidence level in applying the strategy.

Category 2: Effectiveness of the types of contextual clues strategies.

Each type of Contextual Clues Strategy was also analysed through the questionnaire items and interview responses. Like the Morphemic Analysis Strategy, the learners were exposed to the types of clues throughout the enrichment sessions with example and practices. The mean scores of the types are shown in Table 11.

Table 11 Effectiveness of the Types of Contextual Clues Strategy

Items	Agree(%)	Neutral(%)	Disagree(%)
The strategies help me to understand English words.			
▪Synonym clues	72.22	16.67	11.11
▪Example clues	66.67	16.67	16.67
▪Antonym clues	66.67	5.56	27.78
▪Logic clues	66.67	5.56	27.78

Based on Table 11, the percentage for all the types of Contextual Clues Strategy were between 66.67% and 72.22% on the agree scale, 5.56 to 16.67% on the neutral scale and 11.11% to 27.78% on the disagree scale. Synonym clues had the highest mean percentage with 72.22%. This shows that the learners could better understand and apply the strategy as compared to other strategies. Example, antonym and logic clues had the same percentage which was 66.67% on the agree scale.

Also, this result was reinforced by the findings from the interviews. Table 12 shows the typical responses of the learners to the question: "Among all the word families, which one do you prefer?"

Table 12 Preference of Word Families in Contextual Clues Strategy

Learner	Response
A	*Synonym clues … I can understand the word when I look at the words of similar meaning.*
D	*Example clues … I can know the word meaning when I see the examples.*

Based on the responses, the learners highlighted that the respective contextual clue was effective in helping them understand the meaning of words. For one, the learners perceived that synonym clues were among the most helpful contextual clues. The result is congruent with the study done by Kolahi, Azam and Kehtari (2013) as they also found that synonym clues were the most effective in helping learners' understanding of vocabulary.

Although example, antonym and logic clues had the same percentage on the agree scale, it was noticed that the percentage for the example clue on the disagree scale was less as compared to the antonym and logic clues. This suggests that example clue is more helpful as compared to the other clues. This is coherent with the findings by Mahmoud (2016) that showed the synonym and example clues as the most common strategies used by learners. They were being regarded as the clues that could be easily used and the learners did not need much skill to apply the strategies. This was comparable to the findings of this study where the learners also viewed that these two strategies allowed them to understand the meaning directly as they either came across the easier synonym around the word or located the word after the clue 'or'.

To summarize, this strategy was helpful for learners during reading comprehension. The learners could understand difficult vocabulary through the surrounding words. This exemplifies the top-down process that the learners applied when they used background knowledge about the context based on their understanding of the surrounding words. In general, the learners who provided positive feedback highlighted that they could apply the strategy to understand the meaning of the words. Therefore, they found the strategy to be useful. However, some learners pointed out some limitations of the strategy such as they were unable to apply the strategy in certain situations and therefore, they faced difficulty in reading comprehension. As such, it could be said that the strategy was helpful for some learners but not all.

Pedagogical Implications of the Study

The study had shed a new light on the effectiveness of Morphemic Analysis and Contextual Clues Strategies on L2 learners' reading comprehension and vocabulary learning. These findings have several significant implications for learners, teachers, and material designers.

L2 learners especially year-six learners may apply certain strategies in learning vocabulary and reading comprehension. Based on the findings, particularly the strengths and weaknesses of the strategies discovered, learners could consider applying a variety of strategies based on their learning preference such as by memorizing the roots and affixes or guessing the meaning through contextual clues. Applying the strategies would encourage the learners' autonomy as they do not need to be highly dependent on other resources such as to look for the meaning in dictionaries in order to understand the reading materials.

Moreover, L2 teachers could adapt the strategies based on personal teaching styles and learners' needs. For example, if teachers need to help the learners with vocabulary retention, teachers could employ Contextual Clues Strategy as it was found to be able to develop vocabulary learning and reading comprehension. Thus, teachers could improve their teaching practices as well as help the learners for effective learning by employing the strategies depending on the learners' needs.

Finally, material designers could specifically design suitable materials for vocabulary learning and reading comprehension emphasizing on the explicit use of strategies suitable for L2 learners. Although the materials were adapted based on the Malaysian context, they should be applicable for L2 learners in general. As such, they are suitable for vocabulary building and reading comprehension development especially among beginners in L2 classroom.

Suggestions for Future Research

Since the Morphemic Analysis and Contextual Clues Strategies have been found to be useful, albeit to a certain degree in learners' reading comprehension and vocabulary learning, the findings of this study could be explored further. It is suggested that in future, research can either focus on expanding the scale and period or combining the two strategies.

First, the study could be expanded to a larger scale to involve more participants and longer period of practice. As the study only involved year-six L2 learners over six weeks, future researchers are recommended to explore whether the strategies are suitable for other groups of learners. Meanwhile, longer period of time could be given to practise using the strategies.

Second, future researchers could combine Morphemic Analysis and Contextual Clues Strategies to explore their effects on learners' reading comprehension and vocabulary learning. Combination of the strategies could be related to the interactive process which is the combination of bottom-up and top-down models. As both strategies yield positive findings although the gains varied, further research to explore the effects of the combination of the strategies is important in order to observe whether there are significant differences between the gains of the combination of the two strategies.

5.0 CONCLUSION

This study has reported the learners' perception of Morphemic Analysis and Contextual Clues Strategies in vocabulary learning and reading comprehension. Morphemic Analysis Strategy was found to be helpful in developing reading comprehension and vocabulary learning. The learners' vocabulary improved by learning the prefixes but the strategy was difficult for learners who could not remember the meaning of the prefixes. Apart from that, Contextual Clues Strategy was also found to be useful for learners' reading comprehension and vocabulary learning. The learners could guess the meaning of the words through the clues but learners who did not master the strategy found the strategy to be difficult. These findings can be related to a few past studies as there were both positive and negative aspects about the strategies.

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