Grammar Learning Strategies Used by ESL Undergraduate Students

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Abstract: The present research investigated the grammar learning strategies (GLS) used by Malaysian ESL undergraduate students. It also examined the mean differences in the GLS used based on students' proficiency levels. Quantitative research using a survey design was conducted in gathering the data. A set of questionnaires was randomly distributed via google forms to Malaysian ESL undergraduate students who enrolled in a grammar course. 80 students responded to the questionnaire; thus, they became the participants of the research. Both descriptive and inferential analyses were used to interpret the data. The findings indicated that taking notes while listening to their teacher's explanations, finding out the reasons for their mistakes, encouraging themselves to practice grammar and asking friends for help were the most common strategies used in cognitive, metacognitive, affective, and social strategies respectively. Social strategies were found to be the most common strategies used by the students. Finally, the research also revealed that high proficient students used all strategies more than low proficient students. The findings of the research can be useful for teachers as they can vary their teaching approaches to match the students' grammar learning strategies. In addition, less proficient students can also learn the strategies used by the more proficient students so they can also benefit from using the strategies in learning grammar.

Keywords: ESL, Grammar, Proficient, Strategies, Quantitative research

1.   Introduction

Learning grammar can be challenging for students as grammar can be complex with its rules, exceptions and abstractions. The students find it difficult to understand and apply in practice when there are inconsistencies with, for example, sentence structures, verb tenses, word order (Ajaj, 2022). Lack of context, lack of exposure to authentic language and negative perceptions towards learning grammar can also contribute to the challenges. Therefore, students do not have any motivation and interest in learning grammar effectively (Farhod, 2022).

There were studies which examined the challenges faced by students in learning grammar. One of the studies was conducted by Paputungan et al. (2022) who reported that the challenges faced by Indonesian students in learning grammar were the complexity of grammar structures and rules, sentence patterns, and displacement of tenses. They also found motivation and inappropriate learning strategies were regarded as challenges as well. The linguistic factor was also found in Effendi et al.'s (2017) study

as the students reported that they had difficulties in understanding the complex structures and also English had different structures from their mother tongue. In minimising the challenges, Agustina (2013) suggested that students should have their own language learning strategies that are appropriate for them to master the language.

2.   Literature Review

Language learning strategies have been widely investigated in the past. Some studies looked into identifying the use of language learning strategies by students in primary schools (eg. Dawi & Hashim, 2022; Lim et al., 2021) and by students at university (eg. Othman et al., 2022; Sukying, 2021). Meanwhile, Abdul Halim, et al. (2021) and Khairul Anuar and Mokhtar (2021) investigated the use of language learning strategies in online environment. These studies have shown that language learning strategies did facilitate the learning process and make language learning effective. Another area that has also been the focus of researchers is grammar learning strategies, a subset of language learning strategies.

2.1   Grammar Learning Strategies

Grammar learning strategies were derived from language learning strategies which were introduced by Oxford (1990). In 2007, Oxford et al. offered a framework for grammar learning strategies. They divided the strategies into three categories which are implicit learning with focus on form, explicit inductive learning, and explicit deductive learning. Grammar learning strategies that include a focus on form are recognising grammatical structures that could prevent misunderstanding and miscommunication, noticing how more proficient people say things and imitating, noticing correction of inaccurate utterances. Examples of grammar learning strategies facilitating explicit inductive L2 learning are participating in rule-discovery discussions in class, developing and testing hypotheses about how target structures work, checking with more proficient peers whether a given rule interpretation is correct or not. Grammar learning strategies that are applicable to explicit deductive learning (using the rules presented by the teacher in a variety of activities), are previewing the lesson to identify the important grammatical structures to learn, paying attention to rules provided by the teacher or the coursebook, memorising how structures change their form, and so on. However, Pawlak (2018) lamented that the framework was incomplete, thus, he developed a finer classification which was Grammar Learning Strategy Inventory (GLSI). There are four categories in this inventory, namely, metacognitive, cognitive, affective, and social strategies.

2.1.1   Metacognitive Strategies

Metacognitive strategies help language students become more aware of their own learning processes and strategies and learn how to monitor and regulate their own learning. Metacognitive strategies can be particularly effective for language students who are seeking to become reflective, self-aware, independent, and autonomous in their language learning. According to Zreagat and Kaur (2012), when students take responsibility for their learning progress, they can assess their own knowledge and skills and consequently increase motivation and learning effectiveness. By developing metacognitive strategies, language students can improve their ability to learn and use grammar effectively (Rivas, et al., 2022). In a quasi-experimental study investigating the role of metacognitive strategies in learning grammar autonomously, Stephen and Singh (2010) discovered that the experimental group which was trained to use metacognitive strategies performed better in their post-tests as they were able to plan, monitor and evaluate their grammar learning. This study suggests that when students are aware of their learning processes in using appropriate metacognitive strategies, they become successful students.

2.1.2   Cognitive Strategies

Cognitive grammar learning strategies assist students to understand and internalize the rules and patterns of a language. These strategies suggest that language learning is most effective when students actively engage with the language and connect new information to their existing knowledge.

Cognitive grammar learning strategies helps students engage with the language in a meaningful way and build a solid foundation for ongoing language (Carlo, 2017). Zhou (2017) investigated the grammar learning strategies adopted by Chinese high school students and the most effective strategies for enhancing grammar proficiency. The results of the study showed that cognitive strategies were the most frequently employed strategies among the participants. They included the analysis of grammatical rules, the practise of grammar exercises, and the memorization of grammar patterns. The study also revealed that students who engaged more cognitive techniques scored higher on the grammar test, indicating that cognitive strategies are useful in enhancing grammar proficiency. In addition, the study showed several especially successful cognitive methods, such as evaluating sentence structures, employing grammar rules to build phrases, and completing grammar tasks with feedback. Zhou's work gives useful insights into the cognitive techniques adopted by Chinese high school students to learn English grammar. The findings indicate that cognitive techniques, especially those involving analysis and practise, are useful for enhancing grammar competency.

2.1.3 Affective Strategies

Affective domain focuses on attitudes, feelings and emotions which relate to the personality and behaviour of the students. According to Yusuf et al. (2023), affective domain encourages students to be more engaged in their tasks that can lead to better performance. Therefore, affective learning strategies focus on the emotional and motivational aspects of language learning. These strategies help language students develop positive attitudes and emotions toward learning grammar, which can improve their motivation, engagement, and learning outcomes (Zakaria, et al., 2019). Seng and Sitthitikul (2013) investigated grammar learning strategies use among Cambodian EFL students and found that affective strategies such as motivation, anxiety reduction, and emotional regulation, were commonly used both by low and high proficient students. The study suggests that students are allowed to be actively involved in addressing the difficulty in learning grammar either inside or outside of the classrooms.

2.1.4 Social Strategies

Social grammar learning strategies involve learning grammar in a social context, by interacting with others, and using language in real-world situations. They help language learners improve their communication skills and develop a deeper understanding of the grammar rules and structures of the language (Zakaria, et al., 2019). Juniar and Carissa (2020) examined the grammar learning strategies used by Indonesian language students and they found that social strategies were commonly employed by the students in learning grammar. This shows that students learn best with other people such as peers, seniors and teachers who can assist them in understanding new concepts and skills. The students can process their learning after they are guided by their teachers and access available resources from their peers and seniors.

2.2 Grammar Learning Strategies and Proficiency Levels

Studies on the relationship between language proficiency levels and the grammar learning strategy use were also the focus of many researchers. For example, Al Abri et al. (2017) found that students with high level of proficiency used metacognitive strategies more than those with low level of proficiency. However, these two groups of students equally used cognitive and affective strategies. Zekrati (2017) who investigated the use of grammar learning strategies among students with different proficiency levels also discovered that high proficient students used more grammar learning strategies than low proficient students. Meanwhile, Haryani (2018) revealed that good language achievers used metacognitive more than other language strategies. Metacognitive strategies are about doing preparation before studying and good language achievers tend to do self-preparation and self-monitoring skills that encourage them to use metacognitive strategies.

2.3   Objectives

In a Malaysian context, it seems that the focus was on language learning strategies and not specifically on grammar learning strategies (e.g. Sani & Ismail, 2021; Dawi, et al., 2021; Lim et al.; 2021). Since studies on grammar learning strategies, especially used by university students, are still under explored, the present study aims to investigate the use of grammar learning strategies among Malaysian ESL undergraduate students. Thus, the research questions of the study are:

1. What are the most common and the least common sub-grammar learning strategies used by Malaysian ESL undergraduate students under cognitive, metacognitive, affective, and social strategies?
2. Which strategy is used most by Malaysian ESL undergraduate students among the four grammar learning strategies?
3. Do the levels of proficiency have any influence on the usage of grammar learning strategies among Malaysian ESL undergraduate students?

3.   Methodology

This research used a quantitative research method using a survey design. According to Ahmad et al. (2019), this type of research is commonly used by social science researchers in investigating phenomena or occurrences affecting the people. It involves a scientific inquiry which gathers numerical data that can be quantified and precisely measured. In addition, using a survey design is less intrusive as compared to interviews or observations because the respondents could answer the survey at any time convenient to them. A 40-item questionnaire was randomly distributed to Malaysian ESL undergraduate students who took a grammar course using a google forms link via WhatsApp Messenger. Only 80 students responded to the questionnaire, and they became the participants of the research. The questionnaire had five sections. Section A was the demographic profile section, Section B, C, D and E were on cognitive, metacognitive, affective, and social strategies respectively. The GLS items of the questionnaire were adopted from Pawlak (2018). The response type was a 5-point Likert scale ranging from 1-(never) to 5-(always). The levels of students' proficiency were determined by the students' final test scores. Those who scored 75% and above were considered as having high proficiency level. Those who scored between 60%-74% were average and those who scored below 60% were low proficient. The data were then analysed using descriptive and inferential statistics. The descriptive statistics were in the form of means whereas a One-way ANOVA test was run for inferential statistics. The significance level was set at 0.01.

4.   Findings

The levels of usage for the grammar learning strategies used in the present study would follow the mean range determined by Al Abri et al. (2017) as shown in Table 1 below.

Table 1. Levels of grammar learning strategies usage

Mean Range	Level
4.5-5.0	Always
3.5-4.49	Usually
2.7-3.49	Sometimes
Below 2.7	Rarely or Never

4.1 The Most Common and The Least Common Sub-Grammar Learning Strategies

Table 2, Table 3, Table 4 and Table 5 show the means and standard deviations of sub-grammar learning strategies under cognitive, metacognitive, affective, and social strategies respectively.

Table 2. Means and standard deviations of cognitive strategies used by Malaysian ESL undergraduate students

Item No.	Cognitive strategies	Mean	SD
4	I take notes when my teacher explains a new grammar structure (e.g. I write down the meaning and the usage of the structure).	4.00	.95
10	I use grammar books in order to review or better understand new grammar structures.	3.89	1.06
2	When I learn a new grammar structure, I try to classify it under a group of similar things. (e.g. verbs, tenses)	3.89	.93
1	When I learn a new grammar structure, I try to associate it with other structures that I already know.	3.86	.92
6	I underline, use different colours or capital letters to emphasize the important parts of grammar rules and explanations.	3.80	1.02
9	I do grammar exercises at home.	3.75	.93
8	I say a new grammar structure to myself several times in order to memorize it.	3.55	.94
3	When I learn a new grammar structure, I compare it with my own language by thinking of its equivalent in my native language.	3.48	1.08
5	I use my own language to write the rules of a new grammar structure.	3.25	1.26
7	I draw charts for grammar rules I learn.	3.01	1.26

Table 2 illustrates that seven cognitive strategies had the means which were in the range between 3.5 and 4.0. This indicates Malaysian ESL undergraduate students usually used these seven strategies when learning grammar. The most usual strategy used was item no. 4, *"I take notes when my teacher explains a new grammar structure (e.g. I write down the meaning and the usage of the structure)"* with the mean of 4.00. This was followed by item no. 10, *"I use grammar books in order to review or better understand new grammar structures"* and item no. 2, *"When I learn a new grammar structure, I try to classify it under a group of similar things. (e.g. verbs, tenses)"* which shared the same mean at 3.89. This was followed by item no. 1, *"When I learn a new grammar structure, I try to associate it with other structures that I already know"* with the mean of 3.86. Next was item no. 6, *"I underline, use different colours or capital letters to emphasize the important parts of grammar rules and explanations"* which had the mean of 3.80. Item no. 9, *"I do grammar exercises at home"* was next with the mean of 3.75 and it was followed by item no. 8, *"I say a new grammar structure to myself several times in order to memorize it"* which had the mean of 3.55. Item no. 3, *"When I learn a new grammar structure, I compare it with my own language by thinking of its equivalent in my native language"* (3.48), item no. 5, *"I use my own language to write the rules of a new grammar structure"* (3.25) and item no. 7, *"I draw charts for grammar rules I learn"* (3.01) were found to be at the low end of the means (2.7-3.49) of the cognitive strategies which indicate that the ESL undergraduate students sometimes used these strategies when learning grammar.

Table 3. Means and standard deviations of meta-cognitive strategies used by ESL undergraduate students

Item No.	Meta-cognitive strategies	Mean	SD
20	I try to find out why I make grammar mistakes.	4.25	.86
18	I pay attention to grammar structures in my own speaking and writing.	4.19	.87
15	I know my strength and weaknesses when it comes to grammar.	4.08	.82
19	I correct the grammatical mistakes that my teacher has marked in my written assignments.	3.96	1.08
11	I think about the situations in which I can use the newly learnt grammar structures.	3.90	.88
16	I have specific goals and objectives in learning grammar.	3.89	.94
12	I try to notice the new grammar structures that appear in a listening or a reading text.	3.83	.94
14	I try to find more effective ways of learning grammar.	3.75	1.07
13	I preview the grammar subjects that will be covered before coming to class.	3.26	1.12
17	I schedule grammar reviews in advance.	3.23	1.00

Under metacognitive strategies as shown in Table 3, eight strategies were in the range between 3.5 and 4.49. This shows that Malaysian ESL undergraduate students usually used these strategies when learning grammar. Item no. 20, *"I try to find out why I make grammar mistakes"* had the highest mean at 4.25. Next was item no. 18, *"I pay attention to grammar structures in my own speaking and writing"* with the mean of 4.19 and was followed by item no. 15*, "I know my strength and weaknesses when it comes to grammar"* whose mean was 4.08. Then, item no. 19*, "I correct the grammatical mistakes that my teacher has marked in my written assignments"* was next with the mean of 3.96. It was followed by item no. 11, *"I think about the situations in which I can use the newly learnt grammar structures"* which had the mean at 3.90 and next was item no. 16, *"I have specific goals and objectives in learning grammar"* with the mean of 3.89. Item no. 12, *"I try to notice the new grammar structures that appear in a listening or a reading text"* and item no. 14, *"I try to find more effective ways of learning grammar"* were placed at the lower *usually* mean range with 3.83 and 3.75 respectively. Item no. 13, *"I preview the grammar subjects that will be covered before coming to class"* (3.26) and item no. 17, *"I schedule grammar reviews in advance"* (3.23) were in the *sometimes* mean range.

Table 4. Means and standard deviations of affective strategies used by Malaysian ESL undergraduate students

Item No.	Affective strategies	Mean	SD
22	I encourage myself to practice grammar when I know I have problems with a structure.	4.01	.91
28	I practice speaking English even when I am worried about making grammatical mistakes.	4.00	.89
29	Playing grammar games helps me comprehend grammar rule better.	3.88	.99
21	I try to relax when I have problems with understanding or using grammar structures.	3.83	.98
23	I try to use grammar structures even when I am not sure they are correct.	3.80	.86
30	I prefer working on grammar tasks alone rather than working with classmates.	3.58	1.12
26	I talk to other people about how I feel when learning grammar.	3.56	1.08
25	I notice when I feel tensed or nervous when studying or using grammar structures.	3.54	1.09
24	I give myself reward when I do well on a grammar test.	3.49	1.15
27	I keep a language learning diary where I include comments about language learning.	2.91	1.21

Table 4 shows that eight affective strategies were in the range between 3.5 and 4.49 which means that Malaysian ESL undergraduate students usually used them in learning grammar. Item no. 22, "*I encourage myself to practice grammar when I know I have problems with a structure*" topped the list with the mean of 4.01. The second highest mean at 4.00 was item no. 28, "*I practice speaking English even when I am worried about making grammatical mistakes*". It was followed by item no. 29, "*Playing grammar games helps me comprehend grammar rule better*" whose mean was 3.88 and then, item no. 21, "*I try to relax when I have problems with understanding or using grammar structures*" with the mean of 3.83. Next was item no. 23, "*I try to use grammar structures even when I am not sure they are correct*" which had the mean at 3.80. Item no. 30, "*I prefer working on grammar tasks alone rather than working with classmates*" (3.58), item no. 26, "*I prefer working on grammar tasks alone rather than working with classmates*" (3.56), and item no. 25, "*I notice when I feel tensed or nervous when studying or using grammar structures*" (3.54), were at the lower means in the same range. Item no 24, "*I give myself reward when I do well on a grammar test*" with the mean of 3.49 and item no. 27, "*I keep a language learning diary where I include comments about language learning*" which had the lowest mean at 2.91, were in the *sometimes* mean range.

Table 5. Means and standard deviation of social strategies used by Malaysian ESL undergraduate students

Item No.	Social strategies	Mean	SD
33	I ask my friends for help when I do not understand my teacher's explanation of a grammar rule.	4.18	.93
32	I ask more proficient students to help me with grammar structures.	4.14	.91
36	I try to help others when they have problems with understanding or using grammar.	4.09	.92
31	I ask the teacher to repeat or explain a grammar point if I do not understand.	3.99	.95
34	I understand grammar better when studying with a friend or a relative.	3.84	.96
35	I ask good speakers of English to correct my grammar when I talk.	3.80	1.08

Table 5 shows that all social strategies had the means which were in the range between 3.5 and 4.0. This indicates Malaysian ESL undergraduate students usually used all these strategies when learning grammar. Item no. 33, *"I ask my friends for help when I do not understand my teacher's explanation of a grammar rule"* had the highest mean at 4.18. This was followed by item no. 32, *"I ask more proficient students to help me with grammar structures"* with the mean of 4.14. Next was item no. 36, *"I try to help others when they have problems with understanding or using grammar"* whose mean was 4.09. Item no. 34, *"I understand grammar better when studying with a friend or a relative"* had the second lowest mean at 3.89 and Item no 35, *"I ask good speakers of English to correct my grammar when I talk"* had the lowest mean at 3.80.

4.2 The Strategy Used Most by Malaysian ESL Undergraduate Students Among The Four Grammar Learning Strategies

Table 6. Means and standard deviation of overall grammar learning strategies used by Malaysian ESL undergraduate students

Grammar Learning Strategies	Mean	SD
Social Strategies	4.00	.78
Metacognitive Strategies	3.83	.71
Affective Strategies	3.66	.69
Cognitive Strategies	3.65	.71

The findings in Table 6 show that all the grammar learning strategies had the overall means between 3.5 and 4.5 which indicate that ESL undergraduate students usually used all the strategies when

they learnt grammar. The social strategies were the most used with the mean of 4.00. They were then followed by metacognitive strategies (3.83), affective strategies (3.66) and cognitive strategies (3.65).

4.3 Grammar Learning Strategies Used by Malaysian ESL Undergraduate Students Based on The Levels of Proficiency

Table 7. One-way ANOVA test results

		Sum of Squares	df	Mean Square	F	Sig.
COGNITIVE	Between Groups	9.102	2	4.551	11.559	<.001
	Within Groups	30.317	77	.394		
	Total	39.420	79			
META COGNITIVE	Between Groups	7.200	2	3.600	8.494	<.001
	Within Groups	32.635	77	.424		
	Total	39.835	79			
AFFECTIVE	Between Groups	5.526	2	2.763	6.545	.002
	Within Groups	32.508	77	.422		
	Total	38.034	79			
SOCIAL	Between Groups	10.464	2	5.232	10.764	<.001
	Within Groups	37.424	77	.486		
	Total	47.888	79			

The results of One-way ANOVA test in Table 7 show that there were significant mean differences in all grammar learning strategies used by ESL undergraduate students based on their proficiency levels. In order to determine which levels of proficiency have any influence on the usage of grammar learning strategies among Malaysian ESL undergraduate students, a Tukey post hoc test was run.

Table 8. The mean differences of the proficiency levels

Dependent Variables	(I) Proficiency Levels	(J) Proficiency Levels	Mean Difference (I-J)	Std. Error	Sig.
COGNITIVE	High	Low	1.26091*	.15589	<.001
		Average	1.08621*	.15503	<.001
META COGNITIVE	High	Low	.95484*	.18685	<.001
		Average	.74375*	.18581	<.001
AFFECTIVE	High	Low	.84099*	.18712	<.001
		Average	.72960*	.18608	<.001
SOCIAL	High	Low	.72233*	.22328	.005
		Average	.49081	.22204	.076

Tukey post hoc comparison test was run after the F values in One-way ANOVA test were significant for all strategies. Table 8 showed that students with high language proficiency used more cognitive strategies than average (MD=1.08, p< 0.01) and low (MD=1.26, p<0.01) proficient students. Students with high language proficiency also used more metacognitive strategies than average (MD=.74, p<0.01) and low (MD=.95, p<0.01) proficient students. High proficient students were also found to use more affective strategies than average (MD=.72, p<0.01) and low (MD=.84, p<0.01) proficient students. As for social strategies, high proficient students used the strategies more than low (MD=.72, p<0.01) proficient students. These findings indicate that high proficient students used all the grammar learning strategies more as compared to those who were less proficient.

5. Discussions

Taking notes while listening to the teacher's explanation was found to be the most common cognitive strategy used by ESL undergraduate students. According to Özçakmak (2019), note-taking while listening has a favourable effect on students' comprehension success, therefore, this strategy is

considered as a good strategy for students to understand the grammatical rules learnt. On the other hand, drawing charts in learning grammar was the least favourable strategy. Although drawing can be an effective method for students to develop memory and conceptualise visually, they are quite reluctant to adopt drawing as a learning method. This method is considered as demonstrating short-term gains which do not compensate the efforts in producing the drawings (Heideman et al. 2017).

Trying to understand the reasons for their mistakes was found to be the most common metacognitive strategy used. Tulisa et al. (2016) posit that learning from errors is one of the metacognitive activities that helps students initiate self-regulated learning which encourages students' engagements in the learning environment and context. Meanwhile scheduling grammar reviews in advance was the least favourable metacognitive strategy. Although making a study schedule is considered as one of good study habits, most students still do not follow or have any study schedule to guide their learning (Ebele et al., 2017). This is probably due to many distractions such as social media and online games which could put students at a disadvantage.

The findings showed that practicing grammar and practicing speaking English were two most common affective strategies used by the ESL undergraduate students. According to Thompson (2019), language learning can be maximised through deliberate practice and intensive practice. Although Abdolmanafi Rokni and Seifi (2013) discovered that journal writing was effective in enhancing grammar knowledge and writing confidence of the students, keeping a language learning diary was the least preferred affective strategy found in the present study. This is probably because keeping diaries is not a common practice among Malaysians.

The finding revealed that asking friends for help was the most common social strategy used by ESL undergraduate students. This is in line with Juniar and Carissa's (2020) study which also found that this strategy was commonly used by the students when they had difficulties in understanding the teacher's explanation. Meanwhile, asking good speakers of English to correct their grammar when they talked was the least common strategy used. Putra and Salikin (2020) state that students do not prefer to be corrected on their grammatical, lexical or/and pronunciation errors while they are talking as they feel that the flow of their communication is interrupted. Furthermore, they will lose focus on what they want to express and feel demotivated.

Social strategies were found to be the most used by ESL undergraduate students as compared to the other three strategies. The finding was supported by Juniar and Carissa (2020) who also discovered that social strategies were preferred by the students in learning grammar. Interestingly, social strategies were found to be used by more adult students than younger students. In contrast, studies conducted by Al Abri et al. (2017), Lim et al. (2021) and Mulugeta and Bayou (2019) discovered that metacognitive, cognitive and compensation strategies were the most used among younger students respectively.

In terms of the influence of students' proficiency on the usage of grammar learning strategies, this study found that students with high proficiency level used all grammar learning strategies as compared to students with low proficiency level. The findings seem to contradict Al Abri et al.'s (2017) study which discovered that proficient students only used more metacognitive strategies than students with low proficiency. Pawlak (2009) also did not find any significant differences in the usage of grammar learning strategies based on students' language proficiency.

6.   Conclusion

In conclusion, the findings from this study would seem to give evidence that ESL undergraduate students prefer certain cognitive, metacognitive, affective, and social strategies in learning grammar. Grammar teachers should find the kinds of strategies that are useful and effective for the students to learn grammar. As the facilitators of learning, teachers can guide students to use effective grammar strategies which could help enhance their proficiency. Grammar teachers should be more sensitive to the students' strategy preference and tailor their grammar lessons accordingly. This may result in the students learning the English grammar more effectively. Since social strategy seems to be most used by the students, perhaps, teachers could initiate a buddy system so that students will be more engaged in their learning with their peers. Through this buddy system, low proficient students can learn the grammar learning strategies from high proficient students.

7.   Suggestions

All studies have their limitations, so does this study. First, the small sample came from only one public university, therefore, the findings of the study could not be generalised to the whole university population. Second, this study only employed a quantitative research method using a cross sectional survey. Lastly, this study did not include compensation and memory strategies as this study adapted Pawlak's (2018) GLSI. It is recommended that future research be conducted using larger sample taken from various universities in Malaysia. A longitudinal study using a mixed methods research design can also be carried out in order to give a more in-depth explanation of the phenomenon. In addition, future researchers could also consider investigating the relationship between the use of GLS and the grammar performance using a quasi-experimental study. Other new directions of the research are to examine the teaching strategies employed by the teachers to teach grammar and the role of buddy system in grammar learning.

8.   Co-Author Contribution

The authors affirmed that there is no conflict of interest in this article. Author 1 analysed the data, interpreted the results, and prepared the writeup of the whole article. Author 2 carried out the field work and did the data entry. Author 3 wrote the introduction and literature review. Meanwhile, author 4 did the discussion and conclusion sections.

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