An Investigation of Language Learning Strategies Used by Undergraduattes: Are there Relationship Acorss Variables?

Nur Anisah Tan Abdullah[1], Sarinah Sharif[2], Normah Ahmad[3], G. Sharina Shaharuddin G[4], Choong Pow Yean[5], Noor Hanim Rahmat[6]

[1,2,3,4,5]Akademi Pengajian Bahasa, Universiti teknologi MARA, Shah Alam, [6]Akademi Pengajian Bahasa, Universiti Teknologi MARA Cawangan Johor, Kampus Pasir Gudang
Email: anistan@uitm.edu.my, sarinah@uitm.edu.my, normah698@uitm.edu.my, gsharina@uitm.edu.my, choon322@uitm.edu.my, noorh763@uitm.edu.my
Corresponding Author Email: sarinah@uitm.edu.my

Abstract
Language learners can learn the target language more easily with the help of language learning strategies, which are specific activities, behaviours, tactics, or approaches. It goes without saying that all language learners employ language learning techniques during the learning process. Investigating learning methods for learning Japanese as a foreign language is the goal of this quantitative study. The poll received responses from 107 people who were chosen at random. The tool employed is a survey that was duplicated by Wenden and Rubin (1987), who investigated language learners' learning processes. They looked into three primary strategies: resource management, metacognitive self-regulation, and cognitive components. This survey contains four sections and a 5-likert scale. According to table 1, section A of the demographic profile contains 2 components. 19 entries in Section B deal with cognitive aspects. Part D features 11 items on resource management, and Section C has 11 items on metacognitive self-regulation. The link between the three techniques is also investigated in this study. The results showed that resource management, metacognitive self-regulation, and cognitive components have a strong positive association. The strong connections between strategies and the use of language learning strategies highlight the important roles that these factors play in the Malaysian setting. Because of this, a teacher has a responsibility to concentrate on how pupils employ language learning strategies and how to control them in order to enhance learning outcomes.
Keywords: Language Learning Strategies, Cognitive, Metacognitive, Resource Management

Introduction
Background of Study

To accomplish the fundamental goal of learning, each learning process needs to be modified in some way or with some approach. The "what" process to employ for learning and the "how" to apply it are crucial considerations in the learning process. Nonetheless, when

acquiring a language, humans use a wide variety of ways. While some of these tactics provide the greatest benefit, others are ineffective. Researchers have given the phrase "learning techniques" a variety of definitions because it has many diverse meanings. In his modest definition, Brown (1980) described learning strategies as procedures that may directly advance learning. Chamot(1987) went one step further by attempting to define the term as procedures, tactics, approaches, and activities that students engage in to help them learn and remember both language and subject-specific definitions. According to Oxford et al (1989), language learning strategies are employed to improve and speed up language acquisition. They defined language learning strategies as "activity, behaviours, procedures, or techniques—such as finding conversation partners in the target language or encouraging oneself to take on a challenging language task—used by learners to boost acquisition" (1989: 29). These writers also point out that these techniques make it easier to gather, store, retrieve, and use information.

As they can enjoy utilising them to learn, learners are most likely to adopt their own chosen techniques of learning, according to research conducted to far. Additionally, according to Mohamed et al. (2008), the English language proficiency of Malaysian students is very low. One factor contributing to this issue is that teachers adopt a teacher-centered approach in the classroom, which leads to pupils viewing teachers as authoritative figures who tell them what to do and what not to do. Parilah et al (2005) long-term, pupils could develop a passive attitude and solely rely on professors to guide them through the learning process. Fauziah, et al (2005) further suggest that a teacher-centered learning style continued in a classroom may result in more reliant rather than independent learners. Research have indicated that, particularly at tertiary institutions, the learning process environment in Malaysia has changed from a teacher-centered paradigm to a student-centered learning approach (SCLA) (Fauziah, 2005).

Statement of Problem
Research related to Language Learning Strategies (LLS) has involved many researchers and educators. Alhaysony (2017) stated in his study that research on LLS has shifted the focus from teachers and teaching to students and learning. This means efforts to improve the methodology of language teaching have shifted from language teaching to language learning. Research by Alzubi et al (2017) examines the improvement of Learner Autonomy (LA) using Language Learning Strategies (LLS) in EFL reading in a mobile-assisted language learning (MALL) environment among English as a foreign language (EFL) reader. The improvement of LA in a virtual learning environment enables students to have LLS to control and manage language learning on their own where they are almost free in terms of time, place, access to resources, and material choice. Students have the freedom to manage their learning without the presence of an instructor.
Knowledge about students' motivation and strategy use in learning environments and how these may affect their online learning outcomes were the reason for this research done by (Lin et al., 2017). Online instructors should equip students with a language learning strategy known as self-regulation skills that will allow a positive impact on students who follow online learning in the final grade. Students will experience perceived progress and satisfaction. Therefore, guiding students to self-regulate can help maintain their language learning even after the formal completion of language learning. Therefore, the researchers believe online instructors and course designers should find an effective way to incorporate instructions on online learning strategies into their online courses.

Although many researchers stated that Language Learning Strategies are seen to be useful and assist students in acquiring a language, not all strategies are suitable for all students. Jontaño-González (2017) mentioned in her study that instructors have to understand the concept of the strategy and its importance in terms of accelerating and facilitating the learning of English. This study also discussed three different approaches to L2 instruction, Grammar, Communicative and Cognitive, to identify which approaches promote useful learning strategies in classrooms.

Students who went through physical and online learning methodologies during their school and higher learning education may implement or need the LLS approach differently. Hence, this study is done to investigate.

Hence, this study is done to investigate? Specifically, this study is done to answer the following questions
- How does the use of cognitive components influence language learning?
- How does the use of metacognitive self-regulation influence language learning?
- How does the use of resource management influence language learning?
- Is there a relationship between variables for influence language learning?

Literature Review
Models/Theories of Learning Strategies
　　A learning strategy is an individual's method of organizing and employing a certain set of skills to learn content or accomplish other tasks more effectively and efficiently in school as well as in non-academic settings (Schumaker & Deshler, 1992). Oxford (1990) defined language learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (Oxford, 1990, p.8). There are several theories used in learning strategies. These include behaviourism theory, cognitive theory, and sociocultural perspective theory (Banu Ramlakshmi, 2013). There are many classifications of foreign language learning strategies that are widely used. O´Malley et al (1985) classified learning strategies into 3 categories, namely metacognitive, cognitive and socio affective. Rubin & Wenden (1987) categorised learning strategies into direct and indirect strategies. Direct strategies include cognitive and metacognitive; indirect strategies include communication strategies and social strategies. Oxford (1990) also used direct and indirect strategies. The components of direct strategies are memory, cognitive, and compensation, while metacognitive, affective, and social are indirect strategies.

Language Learning Strategies
　　According to Hardan (2013), different students use different behaviors or strategies to learn a new language. Learners used to use strategies that were beneficial to them based on their learning styles. Habók and Magyar (2018) stated in their study that previous research has shown that students who use language learning strategies (LLS) more often have a better chance of becoming more proficient language learners. Students who are better at learning use a broader range of strategies and select learning strategies based on learning tasks. In another study, Gavriilidou and Psaltou-Joycey (2010) defined learning strategies as initiatives that learners take consciously—at least in the early stages of learning—to facilitate their language learning and become more responsible and autonomous learners.

Past Studies on Language Learning Strategies

The goal of the study by Othman et al (2022) was to look into the language learning techniques used by 22 Malaysian technical university freshmen, especially with regard to oral presentation abilities. Focus group interviews were used in the study, and the information gained was recorded, transcribed, and subjected to thematic analysis using O'Malley and Chamot's (1990) taxonomy. In contrast to social and affective strategies, the results indicated that participants utilised more metacognitive and cognitive methods. The study makes the point that students' preferred language learning methods might not always work. As a result, educators must choose appropriate techniques to scaffold students' learning and find successful language learning tactics for their pupils.

In their investigation on the use of language learning strategies (LLS) by its two main stakeholders, namely the students and the teachers, Kussin et al (2021) studied a Malaysian pre-tertiary educational institution. Because the study used a mixed-methods approach, data from both quantitative and qualitative sources were gathered to present the results. The two key tools for this study were the classroom observation protocol and the Strategy Inventory for Language Learning Strategies (SILL). The study had 300 participants in total, with the figure coming from the Krejci and Morgan table. The students were split into two groups: 150 passed the institution's English Proficiency Test (referred to in the study as "EPT-pass"); and 150 failed the test (referred to as "EPT-fail"). All of the teachers at the educational institution were invited to participate in the study, and four of them willingly agreed to do so. Descriptive statistics (mean and standard deviation scores) and theme analysis were used to analyse the data. Using EPT-pass group recording (M=4.084, SD=0.625) and EPT-fail group recording (M=2.722, SD=0.466), the results demonstrated that students used indirect language acquisition strategies more frequently than direct strategies. The most frequently used strategies in the EPT-pass group were metacognitive strategies (M=4.361, SD=0.954), whereas the most frequently used strategies in the EPT-fail group were affective strategies (M=3.077, SD=0.399). The four teachers whose lesson implementations were observed also likely incorporated LLS into their lesson plans. In order to ensure more successful implementations, the study suggests that LLS play a crucial role in both the teaching and learning of English and should be actively nourished and incorporated within English language schools.

Past Studies on Foreign Language Learning Strategies

Many studies have been done to investigate the learning of foreign language learning. Rahmat (2018) reports findings of past studies in the language classroom that have used educational psychology as a basis for understanding behaviour in teaching and learning. Stander (2022) found that students with a mother tongue other than English often struggle with their tertiary education where the medium language is English. A study by Stander (2022) using both quantitative and qualitative methods was carried out to establish the relationship between language learning strategies, affective factors, and language proficiency. The findings show a positive correlation between compensation and affective strategies and language proficiency, which are directly linked to affective factors. Thus, affective factors can either enhance or obstruct learners' language proficiency, and the use of language learning strategies may affect learners' learning outcomes (Stander, 2022)

Hakan (2015) has conducted a study which is aimed at determining the relationship between undergraduates' language learning strategies and gender. To determine undergraduates' language learning strategies, data were collected from 120 undergraduates from English

classes. Results show that significant differences were found in undergraduates' language learning strategies relating to gender. Hakan (2015) suggests further investigation is necessary to determine the precise role of language learning strategies. At the same time, teachers play the important role of designing the most optimal teaching plan. Many studies have been done to investigate the learning of foreign language learning. Rahmat (2018) reports findings of past studies in the language classroom that have used educational psychology as a basis for understanding behaviour in teaching and learning. Stander (2022) found that students with a mother tongue other than English often struggle with their tertiary education where the medium language is English. A study by Stander (2022) using both quantitative and qualitative methods was carried out to establish the relationship between language learning strategies, affective factors, and language proficiency. The findings show a positive correlation between compensation and affective strategies and language proficiency, which are directly linked to affective factors. Thus, affective factors can either enhance or obstruct learners' language proficiency, and the use of language learning strategies may affect learners' learning outcomes (Stander, 2022). Hakan (2015) has conducted a study which is aimed at determining the relationship between undergraduates' language learning strategies and gender. To determine undergraduates' language learning strategies, data were collected from 120 undergraduates from English classes. Results show that significant differences were found in undergraduates' language learning strategies relating to gender. Hakan (2015) suggests further investigation is necessary to determine the precise role of language learning strategies. At the same time, teachers play the important role of designing the most optimal teaching plan.

Conceptual Framework

In language learning, learners depend on the environment they are in and their motivation to learn. A positive environment leads to positive learning experience and vice versa (Rahmat, 2018). Learners can be motivated due to many factors. This study (refer to figure (1) is replicated from the study by Wenden & Rubin (1987) who explored learning strategies among language learners. They investigated three main strategies and the strategies are (A) Cognitive components which can be sub-categorised into (a) rehearsal, (b) organization, (c) elaboration and (d) critical thinking. The next language strategy is (B) Metacognitive Self-Regulation. The last language strategy is (C) Resource Management and this is further sub-categorised into (a) environment management, (b)effort management and (c) help-seeking.
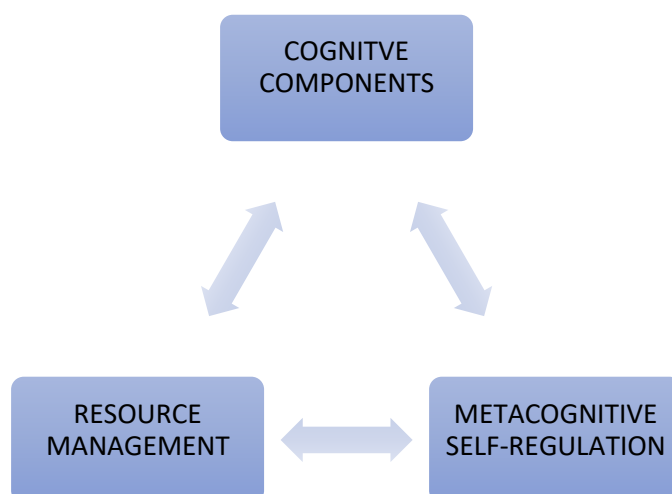
Figure 1-Conceptual Framework of the Study-Language Learning Strategies and Relationship across Variables

Methodology

This quantitative study is done to investigate learning strategies of learning Japanese as a foreign language. A purposive sample of 107 participants responded to the survey. The instrument used is a survey replicated from (Wenden and Rubin, 1987). This 5 Likert -scale survey has 4 sections. With reference to table 1, Section A has 2 items on demographic profile. Section B has 19 items on cognitive components. Section C has 11 items on metcognitive self-regulation and section D has 11 items on resource management.

Table 1
Distribution of Items in the Survey
PART 2-LEARNING STRATEGIES (41 items)

B	COGNITIVE COMPONENTS	(a)	Rehearsal	4	19
		(b)	Organization	4	
		(c)	Elaboration	6	
		(d)	Critical Thinking	5	
C	METACOGNITIVE SELF-REGULATION				11
D	RESOURCE MANAGEMENT	(a)	Environment Management	5	11
		(b)	Effort Management	4	
		(c)	Help-Seeking	2	
					41

Table 2
Reliability of Survey

Reliability Statistics

Cronbach's Alpha	N of Items
.956	41

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .956; thus, revealing a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

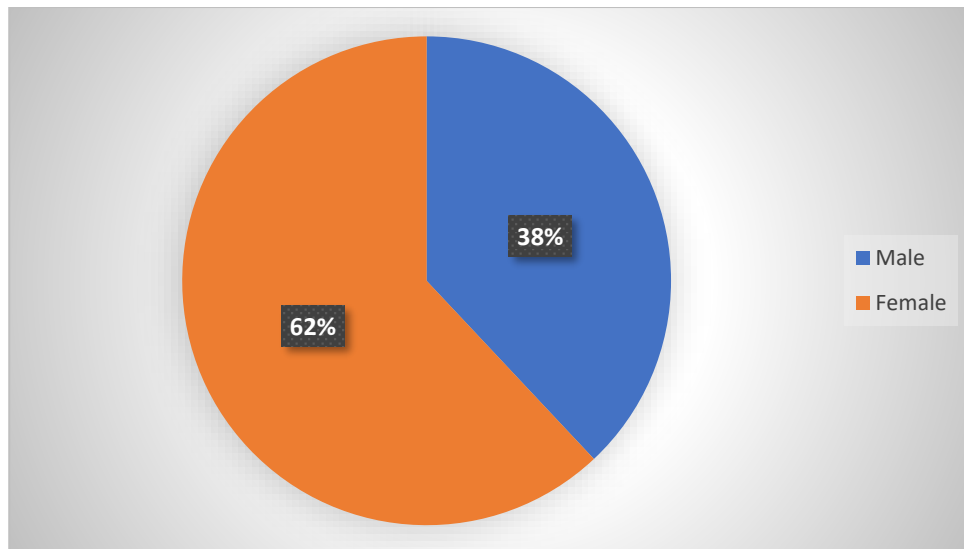**Findings**
Findings for Demographic Profile
Q1.Gender

Figure 2- Percentage for Gender
Figure 2 above represents the percentage for gender which shows that 38% of respondents are male and 62% are female.
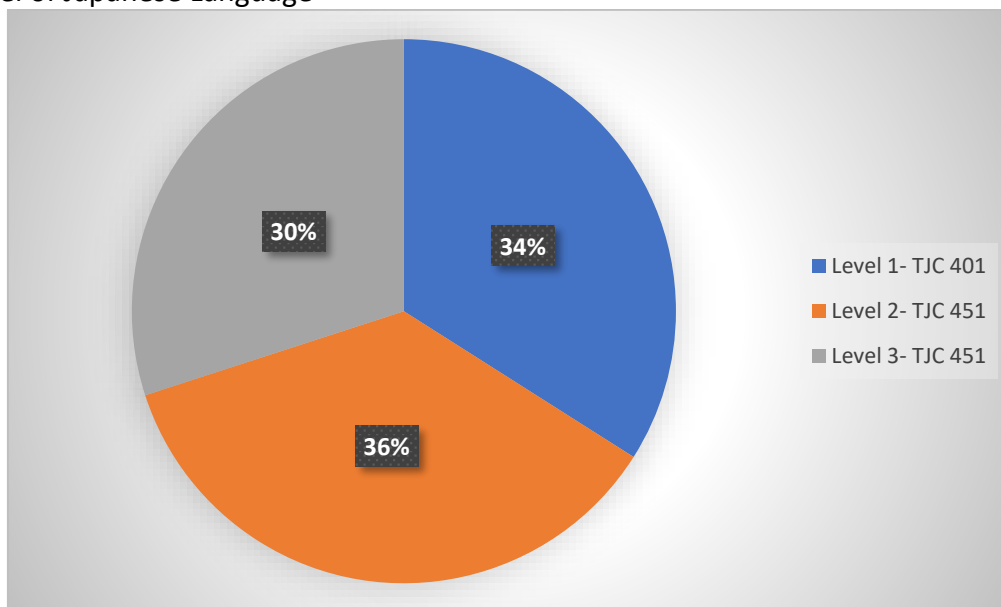
Q2 Level of Japanese Language

Figure 3- Percentage for Level of Japanese Language

Figure 3 represents the percentage for the level of the Japanese language. There are three levels of the Japanese language involved. Level 1 represents 34% of the respondents, level 2 represents 36%, and level 3 represents 30%.

Findings for Cognitive Components
       This section presents date to answer research question 1- How does the use of cognitive components influence language learning? Cognitive components is measured by (a) rehearsal, (b) organization, (c) elaboration and (d) critical thinking

Cognitive Components (19 items)
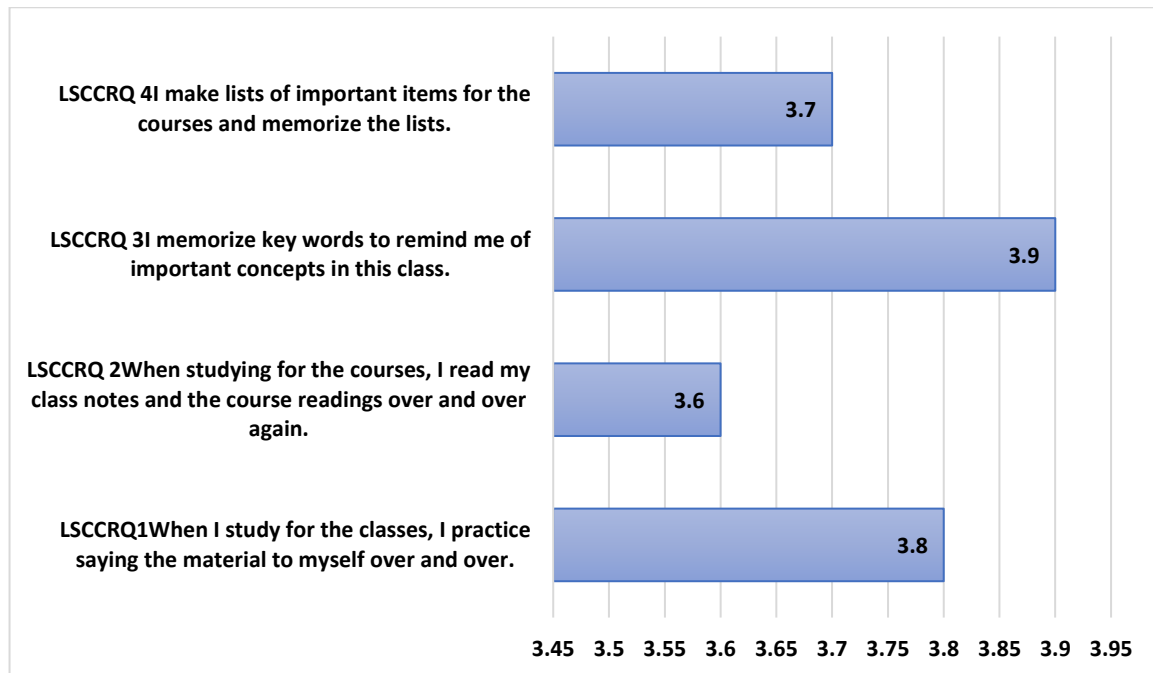   (a) Rehearsal (4 items)

Figure 4- Mean for Rehearsal

Figure 4 above shows the mean score for rehearsal. The highest mean score (3.9) was for "I memorize key words to remind me of important concepts in this class.", followed by "When I study for the classes, I practice saying the material to myself over and over." with a mean score of (3.8). The mean score for "I make lists of important items for the courses and memorize the lists." is slightly lower (3.7). The lowest mean score (3.6) was for "When studying for the courses, I read my class notes and the course readings over and over again.".
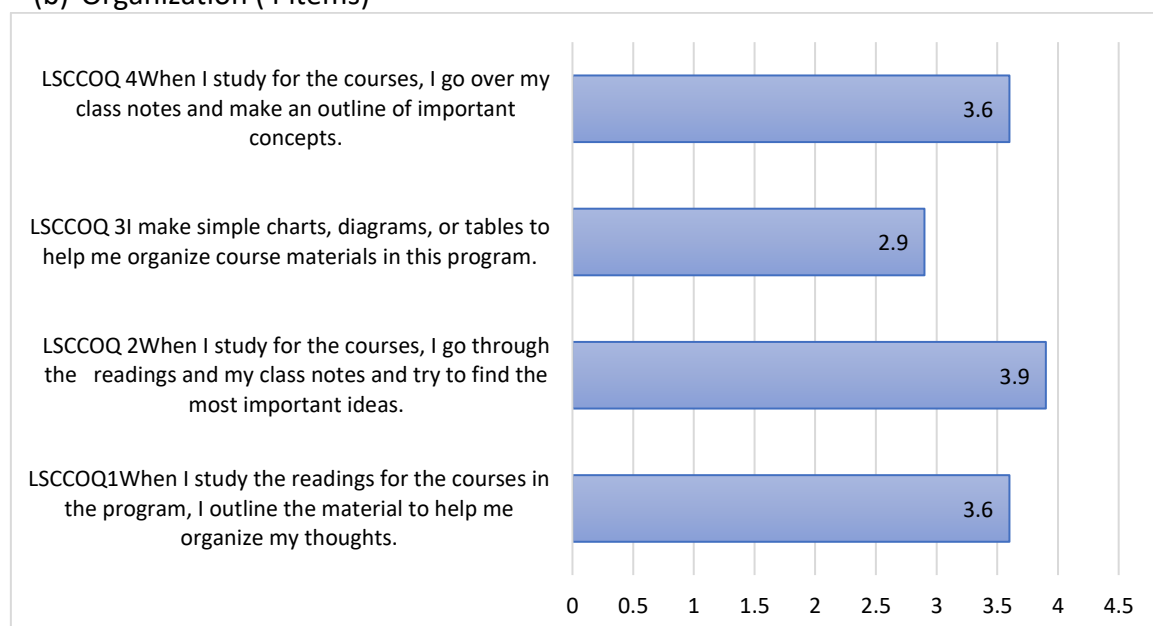
   (b) Organization (4 items)

Figure 5- Mean for Organisation

Figure 5 shows that the highest mean of 3.9 shows that respondents go through the readings and their class notes and try to find the most important ideas when studying for the courses. The mean score of 3.6 signifies that respondents go over their class notes and make an outline of important concepts when they study for the courses. The same mean score of 3.6 also shows that the majority of respondents outline the material to help them organize their thoughts when they study the readings for the courses in the program. However, only a few respondents make simple charts, diagrams, or tables to help them organize the course materials in this program (2.9)

(c) Elaboration (6 items)

LSCCEQ 6I try to apply ideas from course readings in other class activities such as lecture and discussion. — 3.5
LSCCEQ 5I try to understand the material in the classes by making connections between the readings and the concepts from the lectures. — 3.7
LSCCEQ 4When I study for the courses in this program, I write brief summaries of the main ideas from the readings and my class notes. — 3.3
LSCCEQ 3When reading for the courses, I try to relate the material to what I already know. — 4
LSCCEQ 2I try to relate ideas in one subject to those in other courses whenever possible — 3.3
LSCCEQ1When I study for the courses in this program, I pull together information from different sources, such as lectures, readings, and discussions. — 3.6
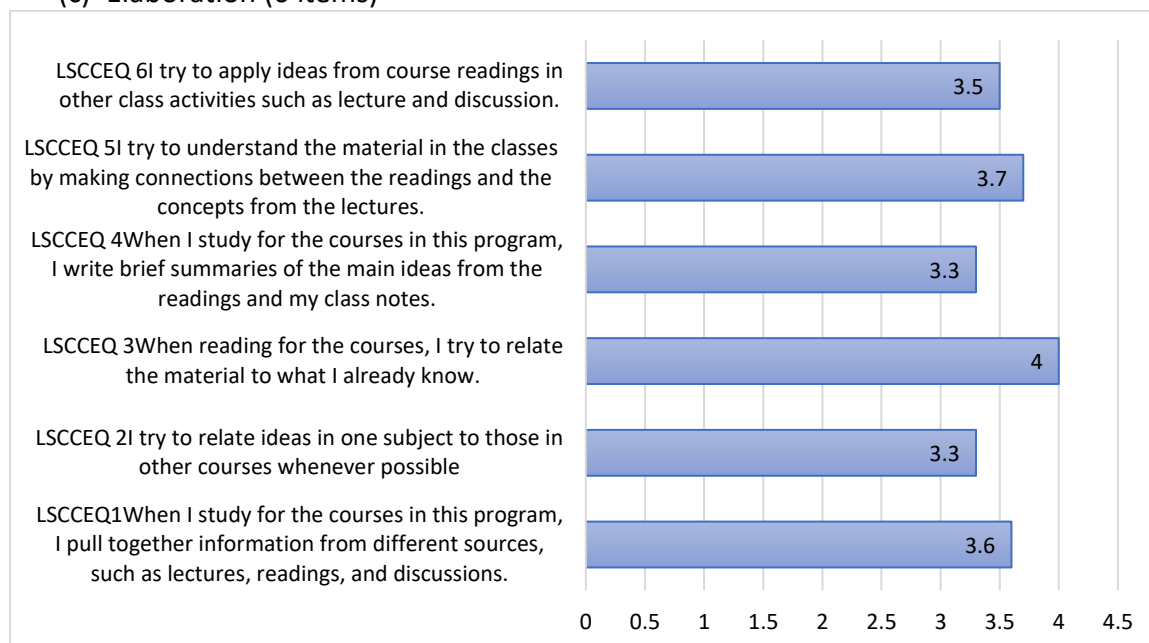
Figure 6- Mean for Elaboration
Figure 6 above presents the mean scores for Elaboration.

The highest mean score is 4.0 which shows that when students are reading for the courses, they try to relate the material to what they already know. The second highest mean score is 3.7 which shows that students try to understand the material in the classes by making connections between the readings and the concepts from the lectures. Students study for the courses in this program and pull together information from different sources, such as lectures, readings, and discussions (Mean score 3.6). Students also try to apply ideas from course readings in other class activities such as lectures and discussions (Mean score 3.5). The two statements with the same mean score of 3.3 respectively indicate that students try to relate ideas in one subject to those in other courses whenever possible and that they also study for the courses and write brief summaries of the main ideas from the readings and their class notes.

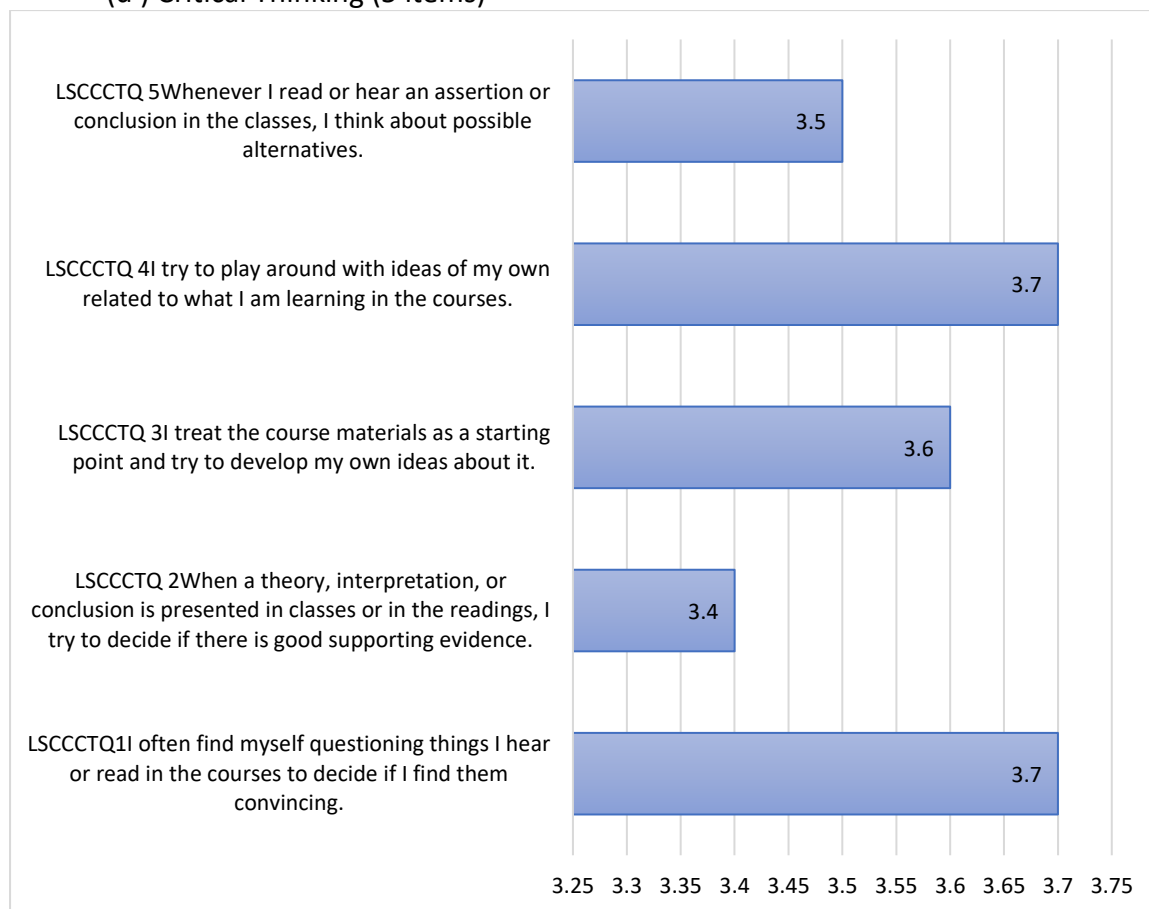(d) Critical Thinking (5 items)

Figure 7- Mean for Critical Thinking

The results of Critical Thinking are shown in figure 7. The students often question things they hear or read in the courses to decide if they find them convincing. They also try to play around with ideas of my own related to what I am learning in the courses (mean score 3.7). Besides, students treat the course materials as a starting point and try to develop their own ideas about them (mean score 3.6). Students feel that whenever they read or hear an assertion or conclusion in the classes, they think about possible alternatives (mean score 3.5). When a theory, interpretation, or conclusion is presented in classes or in the readings, students try to decide if there is good supporting evidence (mean score 3.4).

Findings for Metacognitive Self-Regulation

This section presents date to answer research question 2- How does the use of metacognitive self-regulation influence language learning?

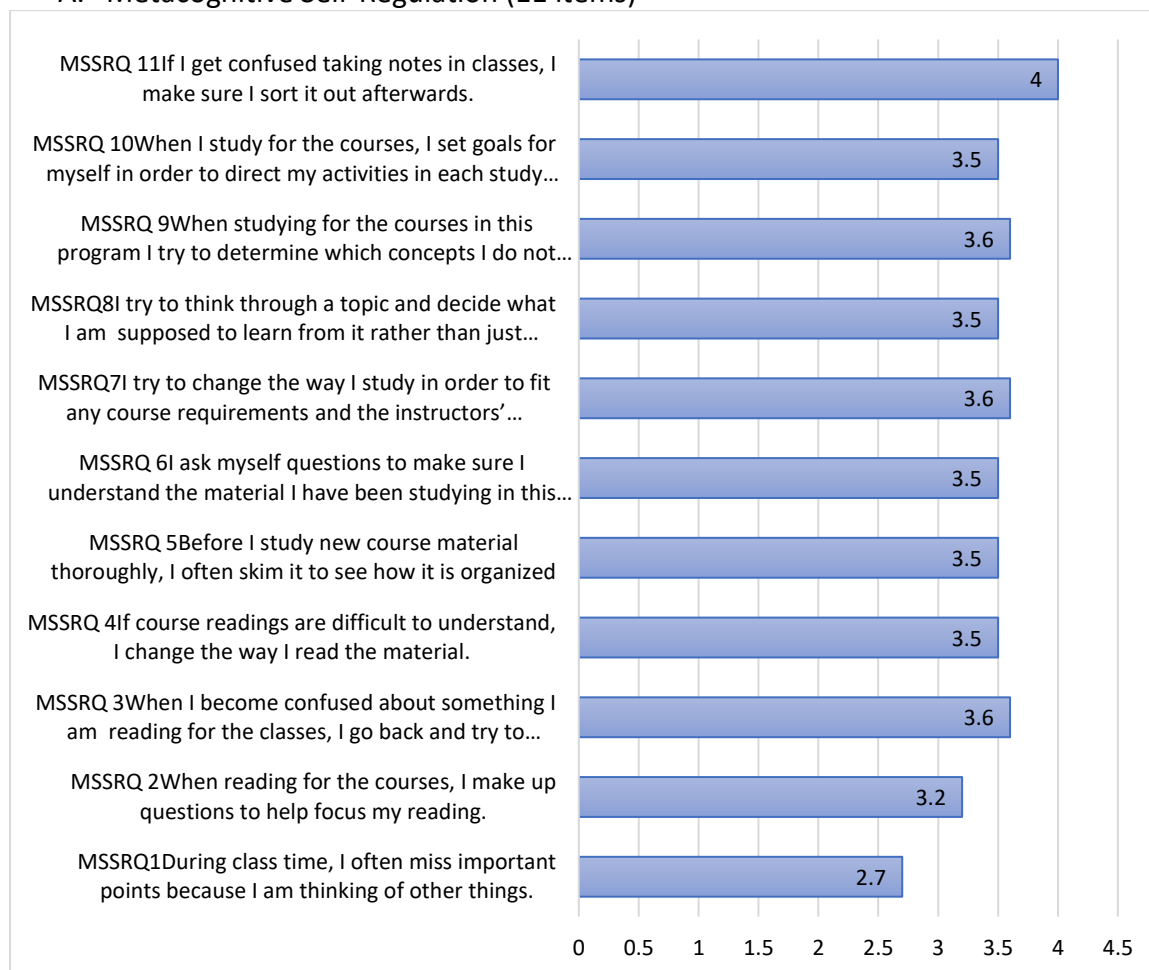A. Metacognitive Self-Regulation (11 items)

Figure 8- Mean for Metacognitive Self-Regulation

Cera (2013) mentioned that Self-regulated students should be aware of mental processes while performing cognitive tasks in the management of study activities. Second, students should be able to plan and monitor their study activities strategically. Thirdly, students can anticipate the type of learning that can be achieved.

Referring to the outcome of the survey in Figure 8, it shows that respondents can focus and manage their studies well. The mean of 4 shows that most respondents said that they will sort out their notes later if they found it confusing during lectures. The mean shows from 3.2 to 3.6, where respondents take action if they get confused with their studies. Not many of the respondents said that they missed the important points because they were thinking of other things. This shows that the respondents were paying attention during class.

Findings for Resource Management
This section presents date to answer research question 3- How does the use of resource management influence language learning? Resource management is measured by (a) environment management, (b)effort management and also (c) help-seeking.

C. RESOURCE MANAGEMENT COMPONENT (11 items)
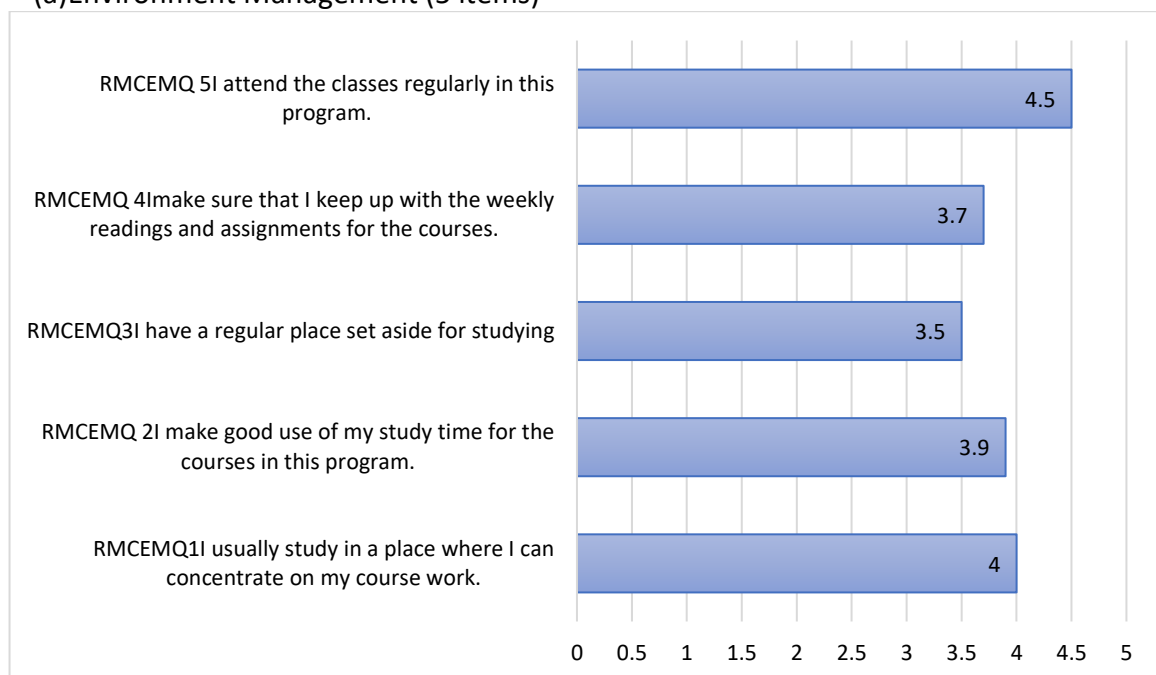### (a) Environment Management (5 items)

Figure 9- Mean for Environment Management

The descriptive statistics of five items for environment management are listed in Figure 9. Most of the respondents agreed with the statement "I attend the classes regularly in this program" as it recorded the highest mean value of 4.5. The second highest mean score is "I usually study in a place where I can concentrate on my course work" (4.0), followed by "I make good use of my study time for the courses in this program (3.9), "I make sure that I keep up with the weekly readings and assignments for the courses (3.7), and I have a regular place set aside for studying (3.5).
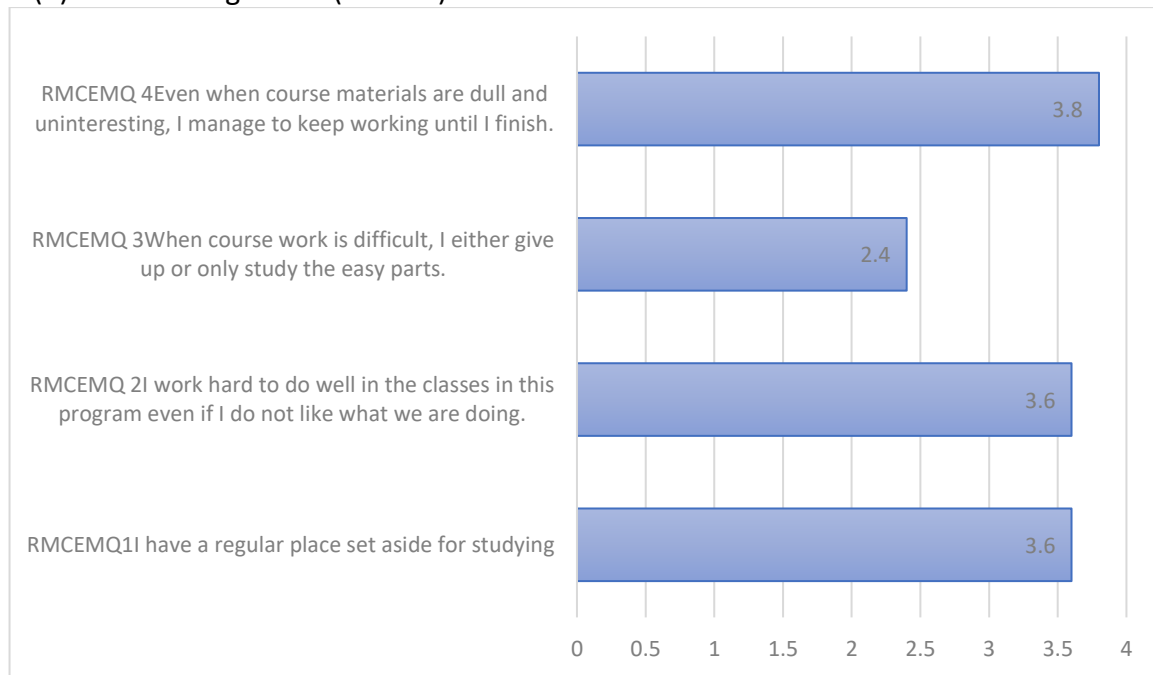
(b)Effort Management (4 items)

Figure 10- Mean for Effort Management

Figure 10 presents the mean for effort management. The highest mean score is for "Even when course materials are dull and uninteresting, I manage to keep working until I finish" (3.8). The second-highest mean score (3.6) is for "I have a regular place set aside for studying" and "I work hard to do well in the classes in this program even if I do not like what we are doing" respectively.
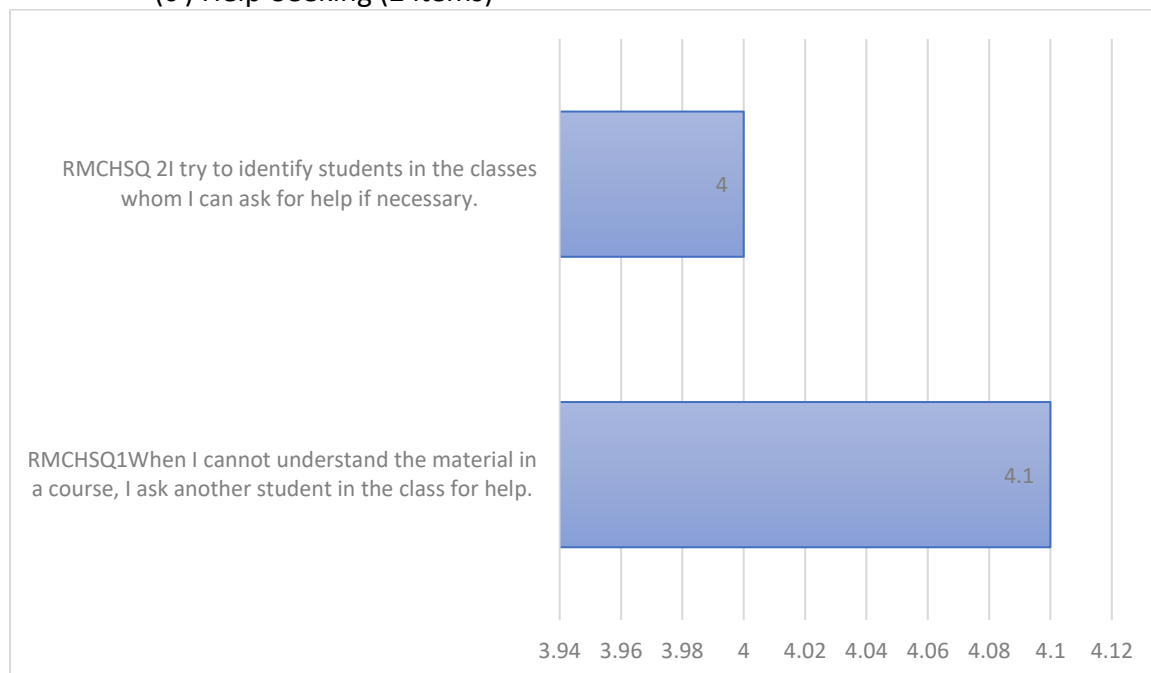
(c) Help-Seeking (2 items)

Figure 11- Mean for Help-Seeking

The descriptive statistics of two items for help-seeking are listed in Figure 11. The findings show that both of the items obtained a high mean score which indicates the students choose to seek help from other students in the process of learning. The statement "When I cannot understand the material in a course, I ask another student in the class for help" has the highest mean score (4.1), and the statement "I try to identify students in the classes whom I can ask for help if necessary" has the mean score of 4.0.

Findings for Relationship between Variables in language Learning?

This section presents date to answer research question 4- Is there a relationship between variables for influence language learning?

To determine if there is a significant association in the mean scores between cognitive components, metacognitive self-regulation and resource management, data is anlaysed using SPSS for correlations. Results are presented separately in table 3, 4 and 5 below.

Table 3

Correlation between Cognitive Components and Metacognitive Self-Regulation

Correlations

		TOTALCOGNITIVE	TOTALMETACOGNITIVE
TOTALCOGNITIVE	Pearson Correlation	1	.803**
	Sig. (2–tailed)		.000
	N	107	107
TOTALMETACOGNITIVE	Pearson Correlation	.803**	1
	Sig. (2–tailed)	.000	
	N	107	107

**. Correlation is significant at the 0.01 level (2–tailed).

Table 3 shows there is an association between cognitive components and metacognitive self-regulation. Correlation analysis shows that there is a high significant association between cognitive components and metacognitive self-regulation (r=.803**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between cognitive components and metacognitive self-regulation.

Table 4
Correlation between Cognitive Components and Resource Management

Correlations

		TOTALCOGNITIVE	TOTALRESOURCE
TOTALCOGNITIVE	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	107	107
TOTALRESOURCE	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	107	107

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 shows there is an association between cognitive components and resource management. Correlation analysis shows that there is a high significant association between cognitive components and resource management (r=.671**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between cognitive components and resource management.

Table 5
Correlation between Metacognitive Self-Regulation and Resource Management

Correlations

		TOTALMETACOGNITIVE	TOTALRESOURCE
TOTALMETACOGNITIVE	Pearson Correlation	1	.608**
	Sig. (2-tailed)		.000
	N	107	107
TOTALRESOURCE	Pearson Correlation	.608**	1
	Sig. (2-tailed)	.000	
	N	107	107

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5 shows there is an association between metacognitive self-regulation and resource management. Correlation analysis shows that there is a high significant association between metacognitive self-regulation and resource management (r=.608**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to

0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between metacognitive self-regulation and resource management.

Conclusion

Summary of Findings and Discussion

According to this study, there is a very strong link between cognitive factors and metacognitive self-regulation (Table 3). Moreover, Table 4 shows a substantial correlation between resource management and metacognitive self-regulation as well as a strong correlation between cognitive components and resource management (Table 5). One of the first cognitive psychologists, Slavin (1980), discovered that when learners are instructed using collaborative learning procedures, their scores are higher than those of learners who have not received any training. Cognitive techniques were necessary to increase knowledge and were more focused on specific tasks. Planning for learning, checking understanding, and assessing one's own learning were all topics of metacognitive methods. According to Brown et al (1983), pupils needed "cognitive and metacognitive methods" to increase their capacity for learning.

The two basic classifications of direct and indirect language acquisition procedures are further classified into six divisions by (Oxford, 1990). Metacognitive techniques aid learners in controlling their learning under Oxford's system. While social techniques encourage more contact with the target language, affective strategies focus on the learner's emotional needs, such as confidence. Memory strategies are used to store information, while compensatory methods help students bridge knowledge gaps so that they can continue communicating. Cognitive strategies are the conceptual techniques that students use to make sense of what they are learning.

Motivation as one of the contributing sources of individual differences has been extensively examined for its relationship with language learning strategies. Dornyei and Otto (1998) defined motivation as "the cumulative stimulus that dynamically changes in a person initiating, directing, coordinating, amplifying, completing, and evaluating motor and cognitive processes by which initial wants and desires are selected, prioritized, operated and (successfully or unsuccessfully) acted upon" (p.65). fatigue, but it can also compensate for some learners' shortcomings such as lack of aptitude. Yang (1999) has shown that strong motivation and beliefs of learners lead to the use of strategies, thereby Furthermore, strategic training, as McDonough (2005) points out, has a positive effect on learner motivation by increasing self-confidence or self-esteem.

Pedagogical Implications and Research Proposals

The language instructor should also research his own methods of instruction and general classroom demeanour. The language teacher can assess whether his lesson plans allow students the opportunity to apply a variety of learning styles and strategies by analysing his lesson plans. The instructor can assess whether his methods encourage students to use a variety of approaches to the topic at hand. Also, the language instructor can be aware of whether he is teaching strategies explicitly, implicitly, or both. It should be emphasised that the teacher can be better prepared to concentrate on language learning strategies and strategy training throughout the course of his teaching by asking himself about what he plans to do before each lesson and evaluating his lesson plan after the lesson in terms of strategy training (Lessard-Clouston, 1997)

Future studies on language learning techniques should concentrate on examining the methods used by university students, particularly in hybrid classes. For the hybrid classroom, efficient language-learning techniques should be created and tested. It's important to investigate how various instructional tactics and technological advancements affect language learning and how to improve language learning strategies.

References

Ahmad, F., Shah, M. P., & Abdul Aziz, S. (2005). Choice of Teaching Methods: Teacher-Centered or Student-Centered. Jurnal Penyelidikan Pendidikan, 7: 5774.

Alzubi, A. A. F., Singh, M. K. M. (2017). The Use of Language Learning Strategies through Smartphone in Improving Learner Autonomy in EFL Reading among Undergraduates in Saudi Arabis, International Journal of English Linguistics, Vol. 7, No. 6, pp. 59-72, September 2017. Retrieved from http://doi.org/10.5539/ijel.v7n6p59

Ramlakshmi, B. T. (2013). Language Learning Theories: An Overview. *Shanlax International Journal of Education*, *2*(1), 29-40. Retrieved from
https://www.shanlaxjournals.in/journals/index.php/education/article/view/2863

Brown, A. L., & Palinscar, A. S. (1982) Inducing Strategies learning from texts by means of informed self-control training. Topics in Learning and Learning Disabilities, 2, 1-17

Cera, R., Mancini, M., Antonietti, A. (2013). Relationships between Metacognition, Self-efficacy and Self-regulation in Learning, ECPS Journal, Vol. 7, pp. 115-141, 2013. Retrieved from doi: 10.7358/ecps-2013-007-cera

Chamot, A. U., & Kupper, L. (1989): Learning Strategies in Foreign language instruction. Foreign Language Annal, 22, 13-24.

Dornyei, Z. (1998). Motivation in second and foreign language learning. Lang.Teach, 31,117-135

Gavriilidou, Z., & Psaltou-Joycey, A. (2009). Language learning strategies: An overview. *JAL*, *25*, 11-25.

Habok, A., and Magyar, A. (2018). The Effect of Language Learning Strategies on Proficiency, Attitudes and School Achievement. *Frontiers in Psychology*, *8*.
https://doi.org/10.3389/fpsyg.2017.02358

Hakan, K., Aydin, B., Bulent, A. (2015). An Investigation of Undergraduates' Language Learning Strategies, Procedia - Social and Behavioral Sciences, Volume 197, Pages 1348-1354. Retrieved from https://doi.org/10.1016/j.sbspro.2015.07.388.

Hardan, A. A. (2013). Language Learning Strategies: A General Overview. *Procedia - Social and Behavioral Sciences*, *106*, 1712–1726. https://doi.org/10.1016/j.sbspro.2013.12.194

Jackson, S. L. (2015) Research methods and Statistics-A Critical Thinking Approach (5TH Edition). Boston, USA:: Cengage Learning.

Kussin, H. J., Bahari, A. A., Khalid, M. P. Z., Harun, R. N. S., Ali, H. N. L., Zin, M. Z., & Taib, M. F. (2021). Language Learning Strategies (LLS) Implementation of Students and Teachers at a Malaysian Pre-Tertiary Educational Institution. *LSP International Journal*, *8*(2), 27–40. https://doi.org/10.11113/lspi.v8.17938

Lin, C. H., Zhang Y., Zheng, B. (2017). The role of learning strategies and motivation in online language learning: A structural equation modeling analysis, Computers & Education, Vol. 113, pp. 75-85, May 2017. Retrieved from
http://dx.doi.org/10.1016/j.compedu.2017.05.014

Mariani, Luciano. (2002). Learning strategies, teaching strategies and new curricular demands: a critical view. Vol XXIX, No.2, pp4 5-56. Retrieved

from:http://www.learningpaths.org/papers/paperstrategies.htm

McDonough, S. (2005) Training language learning expertise. In K. Johnson (ed.) Expertise in Second Language Learning and Teaching (pp. 150–164)

Mohamed, M., Nordin, A., Hashim, R. (2008). Impact on the Implementation of bilingualism in science and mathematics teaching in Malaysian school system. Retrieved November 7, 2008 from:http://kajianberasaskansekolah.wordpress.com/2008/04/24/impact-on-theimplementation of-bilingualism-in-science-and-mathematics-teaching-inmalaysian-school-system/Lessard Clouston, Michael. 1997. "Language Learning Strategies: An Overview for L2 Teachers" on The Internet TESL Journal

Montano-Gonzalez, J. X. (2017). Learning Strategies in Second Language Acquisition, US-China Foreign Language, Vol. 15, No. 8, pp. 479-492, August 2017. Retrieved from doi:10.17265/1539-8080/2017.08.001

Othman, N. A., Mohamed, M. N. A., Powzi, A. N. F., & Jamari, S. (2022). A Case Study of English Language Learning Strategies used by Engineering Students in Malaysia. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, *7*(1), 261–269. https://doi.org/10.47405/mjssh.v7i1.1216

O´Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Kupper, L., & Russo, R. P. (1985). Learning strategies used by beginning and intermediate ESL students. Language Learning, 35(1), 21–46.

Oxford, R., & Crookall, D. (1989) Research on language learning strategies: Method, Findings, and instructional issues. Modern Language Journal, 73. 404419

Oxford, R. L. (1990). Language Learning Strategies: What Every Teacher Should Know. Boston: Heinle & Heinle.

Oxford, Rebecca. (1990). Language Learning Strategies: What Every Teacher Should Know. New York: Newbury House Publishers.lavin, R. E. (1980). Cooperative learning. Review of Educational Research, 50, 315-42.

Rahmat, N. H. (2018) Educational Psychology : A Tool for Language Research. PEOPLE: International Journal of Social Sciences, Vol 4(2), pp 655-668. Retrieved from http://dx.doi.org/10.20319/pijss.2018.42.655668

Rigney, J. W. (1978). Learning strategies: A Theoretical perspective. In H F O'Neil (Jr) (ed) 165-205.

Rubin, J. (1975). What the 'good language learner' can teach us. TESOL Quarterly, 9, 41-51.

Shumaker, J. B., & Deshler, D. D. (1992). Validation of learning strategy interventions for students with LD: Results of a programmatic research effort. In Y. L. Wong (Ed.), Contemporary intervention research in learning disabilities: An international perspective. New York: Springer-Verlag.

Wenden, A., and Rubin, J. (1987) Learner Strategies in Language Learning. New Jersey: Prentice Hall.

Yang, N-D. (1999). The relationship between EFL learners' beliefs and learning strategy use. System, 27 (4), 515-535.