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Investigating Pre-University Students' Motivation to Learn and Their Use of Self-Regulated Learning Strategies

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ABSTRACT

In any context, especially in the academic and professional contexts, having the motivation to succeed is essential. This study aimed to investigate the relationship between motivation to learn and the use of self-regulated learning (SRL) strategies employed by pre-university students at a selected university. A quantitative method was used to retrieve data from 110 participants who were selected through a purposive sampling method from a Centre of Foundation Studies at a selected public university in Malaysia to discover whether the 3 aspects of motivation, namely, self-efficacy, intrinsic value, and test anxiety impact students' self-regulated learning. An online 5-Likert scale questionnaire consisting of 3 parts, which are the demographic profile, motivational beliefs, and self-regulated learning, and a total of 47 questions was used for data collection. The instruments of the survey were adapted from Pintrich and De Groot (1990). Findings suggest a significantly high correlation between students' motivation to learn and self-regulated learning. Meanwhile, correlation analysis

revealed a positive association between students' motivational beliefs and self-regulation learning strategies. The implications of this study demand that educators embed strategies to motivate students to be self-efficient and intrinsically motivated, especially to reduce anxiety faced during test-taking processes by applying self-regulated learning strategies.
Keywords: Motivation, Self-Regulated Learning, Self-Regulated Strategies, Self-Efficacy, Cognitive Strategies

1.0 INTRODUCTION

1.1 Background of Study

The world of teaching and learning has brought about countless changes, especially since the emergence of COVID-19 where students and educators alike need to adapt to a more self-regulated educational environment. Bulantika (2019) emphasised the importance that the current learning process has to cater to the formation of positive values amongst the students as a result of their interaction with their environment. Therefore, motivation becomes an important element in the learning process. Motivation is deemed to be the most important element for every student, regardless of their age. The high and low levels of student motivation can affect the learning process and their achievement, especially at the tertiary institution. Efforts are needed as an intervention to increase learning motivation so that students are more focused on carrying out the learning process. Without motivation, the learning process cannot run well and learning objectives cannot be achieved. As a result, student learning outcomes are less than optimal, even to the point of disappointing learning outcomes.

On top of that, the endemic has reformed the education sector towards the need to move from previously offline learning to online, or non-face-to-face learning, with the utilisation of various applications like Google Classroom, Google Meet, Zoom, and many more. These changes call upon students' self-awareness to learn without depending on other people and feel responsible for achieving the desired goals (Hamka & Vilmala, 2019). Thus, this form of self-regulated learning has to be carried out where they learn without depending on others and with full responsibility by overcoming all problems in learning to achieve specific goals, making independent learning important especially in higher education. Educators must also implement learning activities that can fully involve students, encouraging them to compile their knowledge, find the material being studied, as well as relate and apply it in real-life situations that will consequently help their students think creatively, innovatively, and rationally (Sobri, Nursaptini & Novitasari, 2020). Thus, this study aimed to determine pre-university ESL students' perception of their learning motivation and their use of self-regulated strategies. In addition, it was also done to identify the relationship between learners' drive and cognitive strategy, and their use of self-regulated strategies.

1.2 Statement of Problem

Students' awareness of learning motivation and self-regulation will distinguish between students who have high morale and those who have low learning power. Therefore, by inculcating these two aspects, students will get good learning outcomes. The existence of an effort to increase student learning motivation is based on the fact that those with good learning motivation have many opportunities to try, learn independently, and compete with confidence because their intensity of learning motivation greatly affects their level of achievement. Meanwhile, Zimmerman (1989) defined self-regulation learning as learners' ability to participate actively in the learning process metacognitively, motivationally, and

behaviourally. Self-regulation can produce ideas, feelings, and actions to achieve learning goals. Self-regulated learning strategies also include goal setting, environmental management, self-consequences, and self-evaluation (Malau, Indartono & Tianawati, 2022). However, although learning motivation and self-regulation are very important measures of student achievement, there are still some who have low output in these categories despite having a high level of knowledge and intelligence. Students who are reported to have low motivation and self-regulated learning will tend to procrastinate and experience a decrease in learning achievement, which is significantly detrimental to their learning activities (Amani, Nazifi & Sorkhabi, 2020). Some research has widely discussed the importance of motivation and self-regulated learning skills that students should possess in their learning in separate dimensions but these studies have not fully discussed the relationship between students' motivation to learn and their use of self-regulated learning strategies which should ideally go hand-in-hand. Moreover, studies determining the relationships between motivation to learn and self-regulated learning strategies among pre-university students are still scarce, and therefore crucial, particularly taking into consideration their transition from secondary school level to tertiary education.

1.3 Objectives of the Study and Research Questions

This study was done to explore the perception of learners on their use of self-regulated strategies and their motivation. More specifically, this study was done to answer the following questions: i) How does learners' motivation influence their learning? ii) How do learners perceive their cognitive strategy use? iii) How do learners perceive their use of self-regulation? and iv) Is there a relationship between learners' drive and cognitive strategy use and their use of self-regulated strategies?

2.0 LITERATURE REVIEW

2.1 Motivation / Drive to learn

Several theories have defined motivation in learning, with the focus given on different aspects in explaining the term. Girelli et al. (2018) explained motivation as a complete interest in and reasons for attending university, which is typical of students who possess both intrinsic and extrinsic motivation, with the primary desire to succeed by enrolling themselves in tertiary education to feel as capable as others and feel proud of themselves. They also categorised intrinsic motivation as the highest level of self-determination, explaining that when students are intrinsically driven or motivated, they enroll in institutions of higher learning because they are persuaded by the genuine interest they have in learning and in seeking new knowledge, as much as they believe of its importance for their future careers and personal development Girelli et al. (2018).

By the same token, intrinsic motivation is associated with feelings of competence and autonomy (Van Herpen et al., 2017), while Liu et al. (2022) asserted that when students' learning is consistent, the transition from high school to pre-university is more effective. When students are driven, they are also more likely to enjoy and participate in their academic work, as well as attain high academic standards. This is important because students who missed school due to the worldwide pandemic conditions in the past lack the usual sources of motivation and self-regulated learning techniques in the current endemic period.

2.2 Self-Regulation among Learners

Self-regulation, according to Schunk and Zimmerman (2023), refers to students' self-regulated thoughts, feelings, and activities that are methodically focused toward achieving their goals. Zimmerman (1989, p. 139) explained that self-regulated learners are not only "metacognitively, motivationally, and behaviourally" involved in the learning process, but they also take the course and direction of their learning. Zimmerman and Martinez Pons (1986) assembled 14 learning strategies for their initial classification of SRL strategies. These strategies included self-evaluation, goal setting and planning, information seeking, recording and monitoring, organising the environment, asking for help from peers, reviewing, and summarising.

Chen, Wang, and Kim (2019) discovered that students at a university in China who applied more of the SRL strategies achieved higher academic performance, indicating that the strategies helped in their academic performance. In the same way, Chen et al. (2019) stated that SRL is regarded as a crucial component of the educational process and environment for students. Thus, as a self-directed process, SRL is influenced by motivation, cognitive and metacognitive techniques, and self-regulation.

The acquisition of information or skills, as well as the purpose and views of the learner, are all impacted by strategic learning. In some studies (e.g., Zimmerman, 1989; Tobias & Everson, 2009; Weinstein, Acee, & Jung, 2011, (as cited by Chen et al., 2019), SRL strategies are linked to the actions and processes learners undergo in terms of metacognition and motivational elements. In fact, SRL is considered to be incomplete without the use of cognitive learning strategies and metacognition, which entail the ability to organise, monitor, control, and assess one's own learning.

2.3 Past Studies on Motivation

Several studies have been carried out on motivation and the drive to learn. Baron and Donn (2000) stated that students who are highly motivated have a few traits such as effort, persistence, as well as learning actively and constantly aiming to achieve the best results. This is echoed by Bakar (2014) who claimed that students' motivation to learn is normally projected in the choices they make in the learning tasks, and their persistence in learning and in facing the challenges in the learning process. There are several studies undertaken to determine the relationship between motivation, learning strategies, self-efficacy, and learning results. One such study is by Wang et al. (2008), consisting of 135 distance learners which looked at the relationship between psychological traits and learning results. The study found that learning motivation and learning strategies had a positive predictable outcome on learning results. Another study was conducted to determine the relationship between motivation and the language proficiency of foreign language learners. In their study among high and low IELTS scorers of 100 Iranian students taking English as a second language, Samad et al. (2012) found that the high scorers demonstrated high integrative motivation. A survey was also carried out to ascertain how learners' motivation is determined by expectancy, instrumentality, and valence. A study by Rahmat (2022) showed that learners were motivated to learn English for instrumental purposes, especially to make use of their language proficiency.

2.4 Past Studies on Self-Regulation/ Self-regulated Learning

There have been many studies investigating the use of self-regulated learning (SRL). SRL strategies refer to the processes and techniques that individuals employ to monitor and

control their learning processes actively, making it a pertinent topic to research on. The study by Pintrich (2000) introduced an SRL framework model that covers 4 phases, which include planning and activation, monitoring, control, and reaction and reflection. This framework emphasises motivation and metacognition, as well as self-regulation, and academic achievement. Similarly, Efklides (2011) who studied the relationship between metacognition, motivation, and affect as the components of the SRL strategies, reported that the feeling of difficulty and online affective conditions, which are metacognitive experiences, are significant in determining task motivation and bottom-up self-regulation. Another study was carried out to determine the effects of extended self-regulated learning training programmes on academic performance, self-regulated learning strategies, and motivation of university students. Theobald (2021), who conducted 49 studies involving a total of 5,786 participants on self-regulated learning training programmes, found that the self-regulated learning training programmes improved the participants' academic performance, self-regulated learning strategies, and motivation.

The findings of the studies highlighted above implied the necessity to incorporate such a programme to assist students' overall learning experiences that can support their academic achievement. Emphasising self-regulated learning among learners, particularly among pre-university ESL learners, might help them to get long-term benefits that can go beyond mere academic achievement. In other words, improving students' self-regulated learning strategies and level of motivation means they would learn valuable skills and means for better learning experiences that go beyond the classroom.

2.5 Conceptual Framework

Figure 1 below shows the conceptual framework of the study. This study explores the influence of learners' drive on their use of self-regulated strategies. Learners' motivation makes them succeed and their success in learning creates a ripple effect of confidence in them (Rahmat et al., 2021). Among some of the regulated learning strategies are (i) cognitive strategy use and ii) self-regulation. According to Pintrich and De Groot (1990), learners are pushed to learn by their drive. This drive is rooted in their motivational beliefs such as (i) self-efficacy, (ii) intrinsic value, and also (iii) reduce test anxiety.

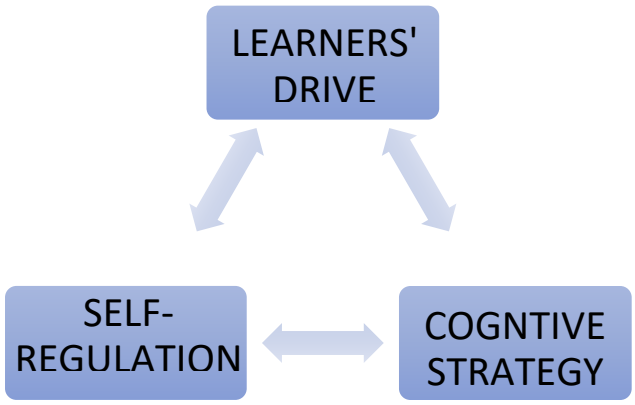

Figure 1. Conceptual Framework of the Study
Relationship between the drive to learn and the use of self-regulated strategies

3.0 METHODOLOGY

This quantitative study is done to explore motivation factors for learning among undergraduates. A purposive sample of 137 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted from Pintrich & De Groot (1990) to reveal the variables in Table 1 below. The survey has 4 sections. Section A has items on the demographic profile. Section B has 14 items on reading difficulties. Section C has 17 items on global strategies. Section D has 8 items on problem-solving strategies and section E has 9 items on support strategies.

Table 1. Distribution of Items in the Survey

PART	CATEGORY	STRATEGY		SCALE	Items	Total Items
TWO	LEARNERS' DRIVE	MOTIVATIONAL BELIEFS	A	SELF-EFFICACY	9	22
			B	INTRINSIC VALUE	9	
			C	TEST ANXIETY	4	
THREE	SELF-REGULATED LEARNING STRATEGIES		D	COGNITIVE STRATEGY USE	13	22
			E	SELF-REGULATION	9	
	TOTAL NO OF ITEMS					44

Table 2. Reliability of Survey

Reliability Statistics

Cronbach's Alpha	N of Items
.927	44

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .927, 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.

4.0 FINDINGS

The results of this study, which came from numerous analyses, are presented in this section. The section opens with a profile of the respondents, which is backed up with demographic information. To ensure sample normality for the preliminary analyses phase, normality tests were carried out. After that, descriptive analyses for each item and variable were carried out.

4.1 Findings for Demographic Profile

This section describes the demographic information from the respondents; their percentage of genders, their programmes and their preferences for study mode.

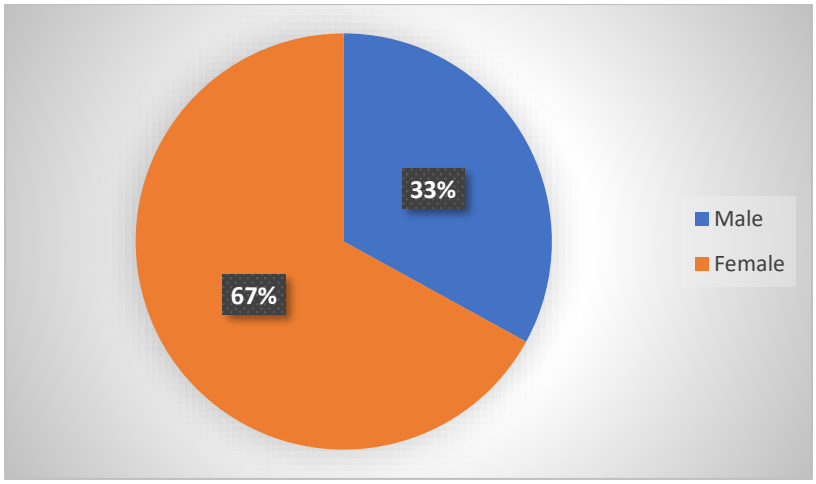

Figure 2 - Percentage for Gender

Figure 2 provides a breakdown of the respondents' demographic features. Female respondents marginally outnumbered male respondents in the sample that was obtained through the distribution of questionnaires, making up 67% as opposed to 33%, respectively.

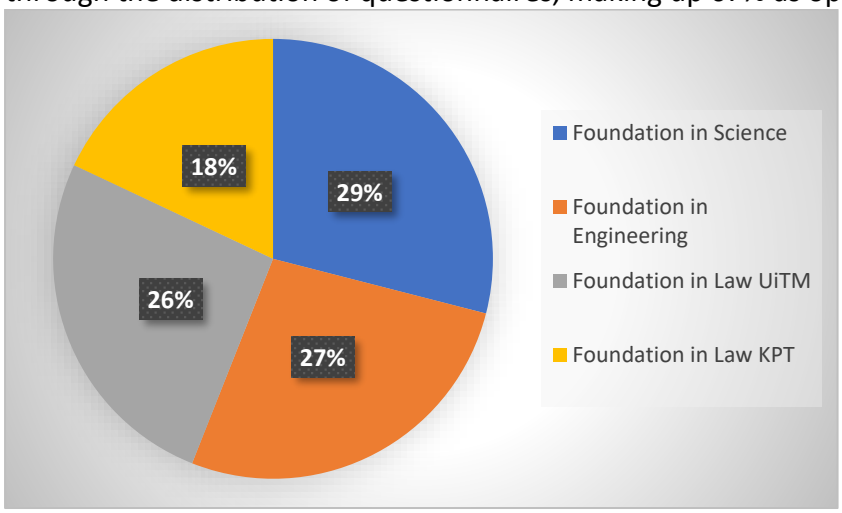

Figure 3 - Percentage for Student Programmes

As indicated in *Figure 3,* slightly more than a quarter of the respondents' programmes were made up of two courses, Foundation in Engineering UiTM showing and Foundation in Law UiTM, which showed 27% and 26% respectively. In addition, 29% of them were pursuing Foundation in Science, and nearly a fifth (18%) was in Foundation in Law KPT.

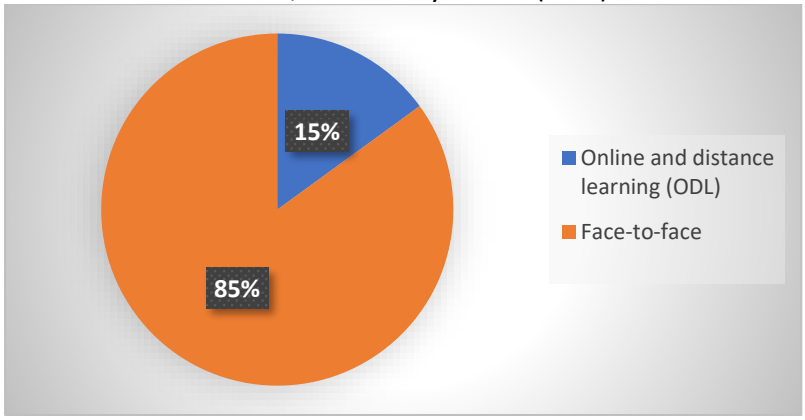

Figure 4 - Percentage for Preference of Study Mode

As shown in *Figure 4*, over three quarters (85%) of respondents chose face-to-face approach as their favourite study option, while just 15% selected online and distance learning (ODL).

4.2 Findings for Learners' Drive

This section presents data to answer research question 1- How does learners' drive influence their learning? In the context of this study, learners' drive is measured by motivational beliefs. According to Pintrich and De Groot (1990), motivational beliefs include (i) self-efficacy, (ii) intrinsic value, and (iii) test anxiety.

a. Motivational Beliefs

(i) Self-Efficacy

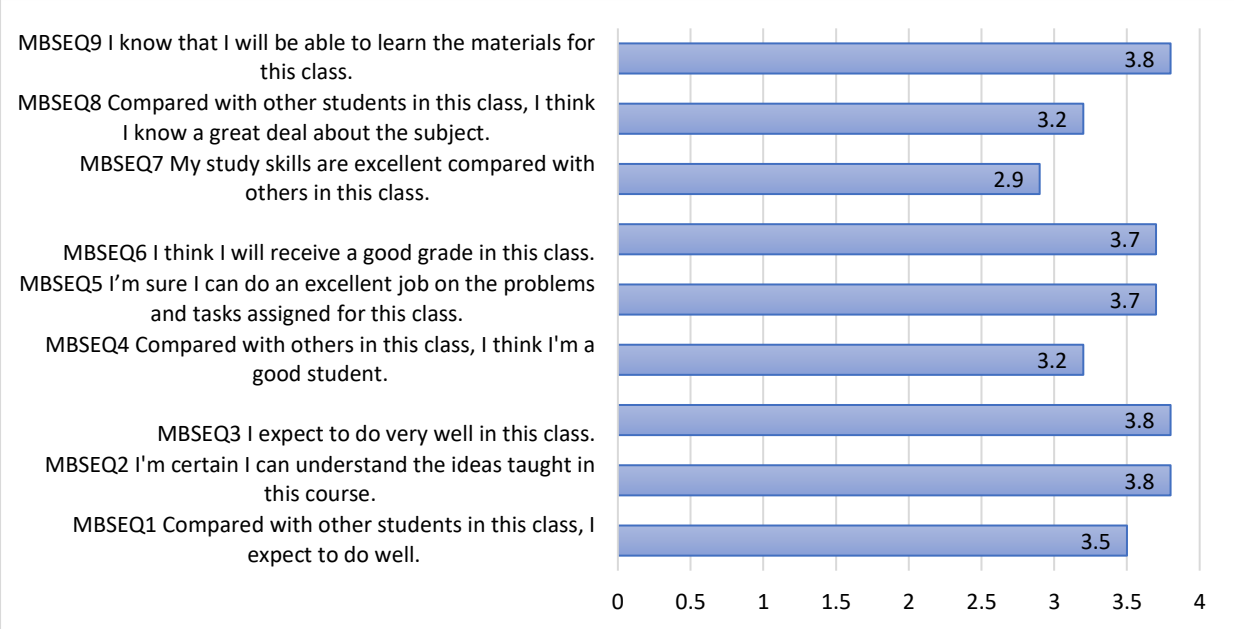

Figure 5 - Mean for Self-Efficacy

Figure 5 presents the means for self-efficacy. The highest mean at 3.8 is reported by 3 items, "I'm certain I can understand the ideas taught in this course", "I expect to do very well in this class" and "I know that I will be able to learn the materials for this class". The second highest mean is 3.7 for 2 items, "I'm sure I can do an excellent job on the problems and tasks assigned for this class." and "I think I will receive a good grade in this class". Meanwhile, the third highest mean is 3.5 for the item "Compared with other students in this class, I expect to do well".

(ii) Intrinsic Value

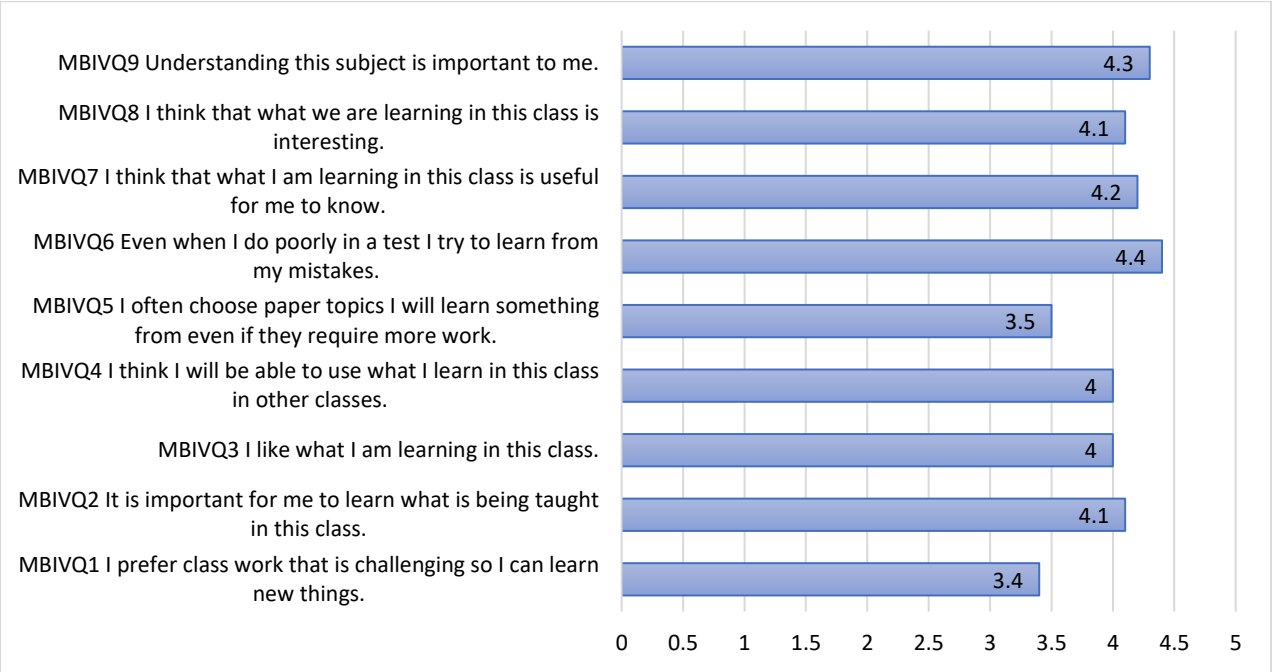

Figure 6 - Mean for Intrinsic Value

Figure 6 shows the means for intrinsic value. The highest mean is 4.4 for "Even when I do poorly in a test I try to learn from my mistakes", while the second highest mean is 4.3 for the item, "Understanding this subject is important to me". The third highest mean is 4.2 for "I think that what I am learning in this class is useful for me to know".

(iii) Test Anxiety

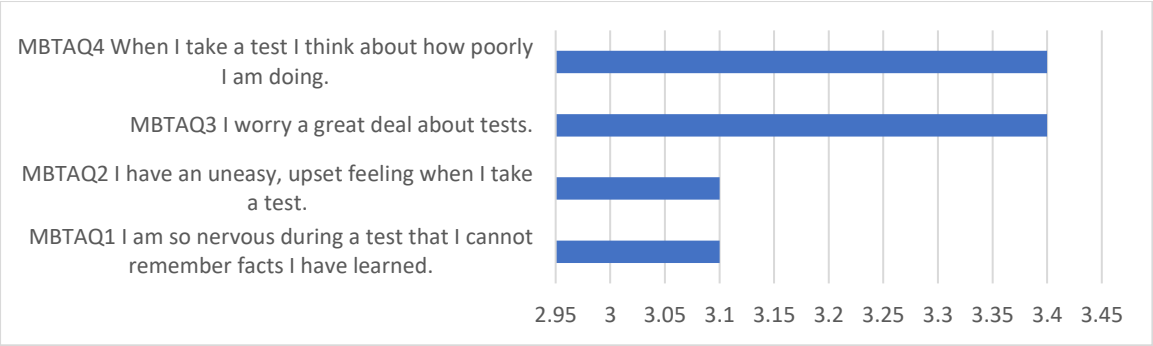

Figure 7 - *Mean for Test Anxiety*

Figure 7 illustrates the means for test anxiety. The higher mean is 3.4 for 2 items, which are "I worry a great deal about tests' and "When I take a test I think about how poorly I am doing", while the lower mean is 3.1 for 2 items also which are, I am so nervous during a test that I cannot remember facts I have learned" and "I have an uneasy, upset feeling when I take a test".

4.3 Findings for Cognitive Strategy Use

This section presents data to answer research question 2- How do learners perceive their cognitive strategy use?

a. Cognitive Strategy Use

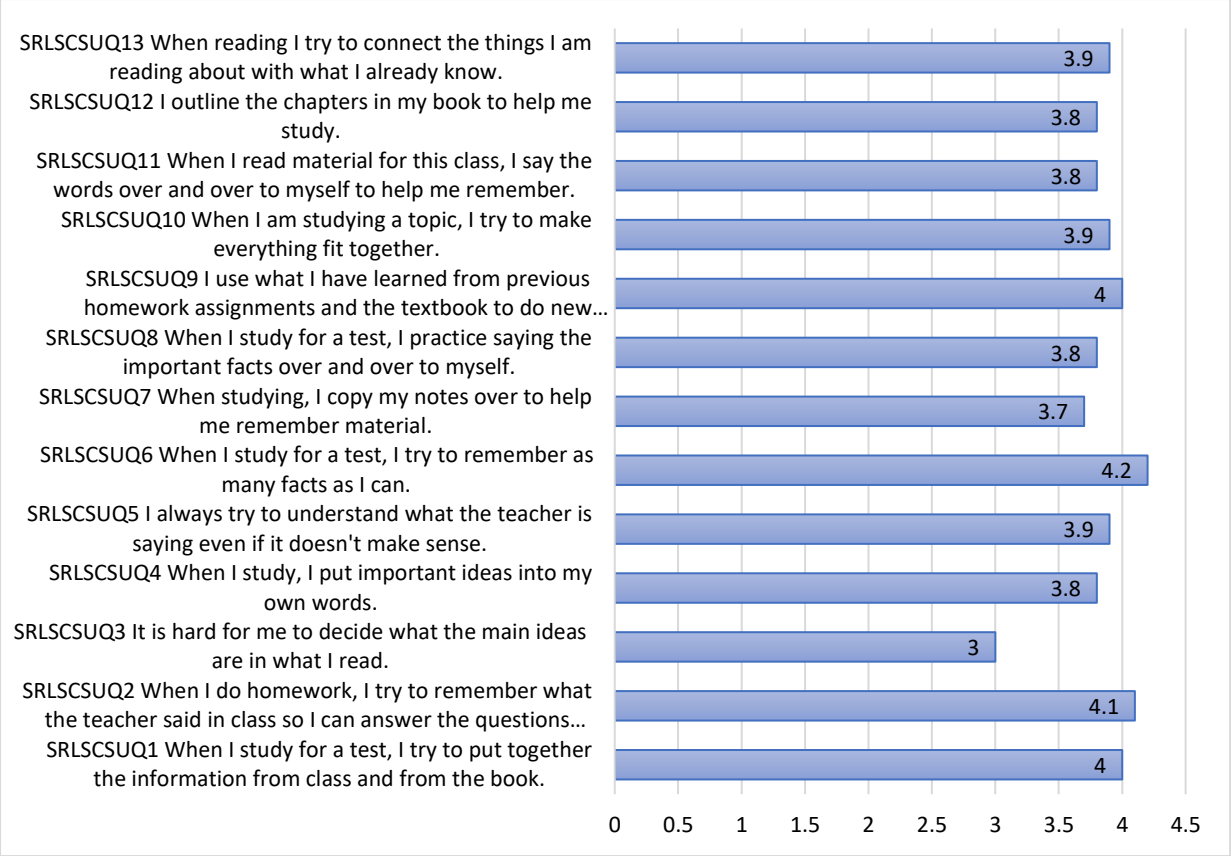

Figure 8 - *Mean for Cognitive Strategy Use*

Figure 8 highlights the means for cognitive strategy use. The highest mean at 4.2 is for the item "When I study for a test, I try to remember as many facts as I can". The second highest mean is for the item "When I do homework, I try to remember what the lecturer said in class so I can answer the questions correctly" at 4.1, while the third highest mean is 4 for 2 items which are "When I study for a test, I try to put together the information from class and from the book" and "I use what I have learned from previous homework assignments and the textbook to do new assignments".

4.4 Findings for Self-Regulation

This section presents data to answer research question 2, i.e. How do learners perceive their use of self-regulation?

a. Self-Regulation

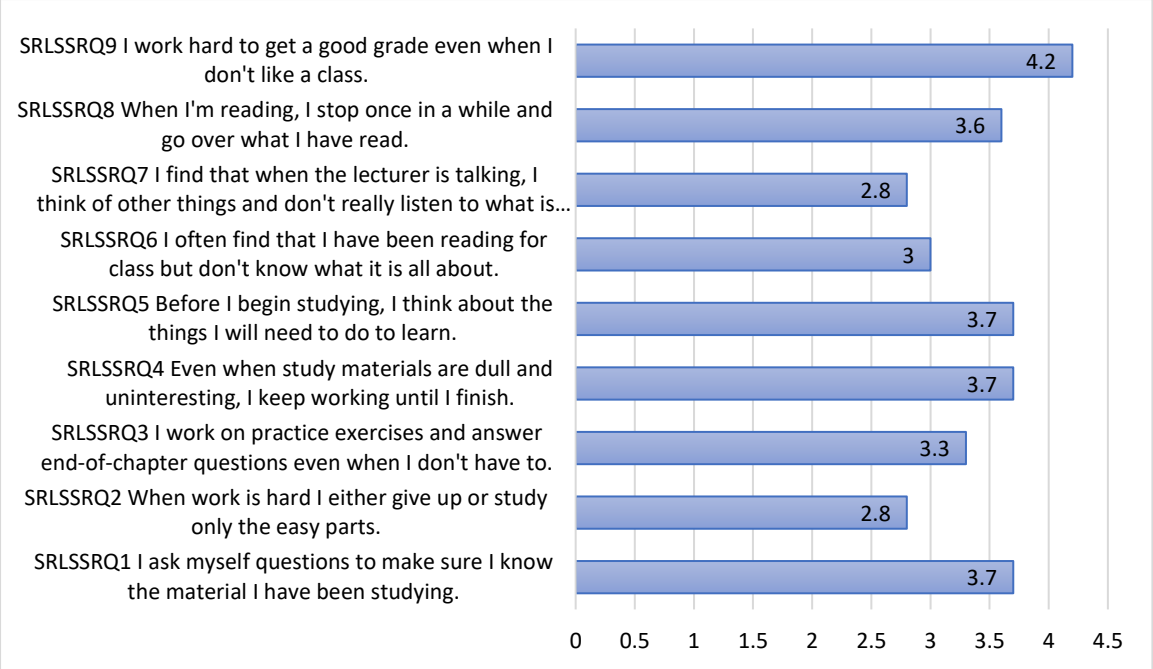

Figure 9 - *Mean for Self-Regulation*

Figure 9 highlights the means for self-regulation. The highest mean is 4.2 for the item "I work hard to get a good grade even when I don't like a class", while the second highest mean is quite significantly lower at 3.7 for 3 items, "I ask myself questions to make sure I know the material I have been studying", "Even when study materials are dull and uninteresting, I keep working until I finish" and "Before I begin studying, I think about the things I will need to do to learn". The third highest mean is 3.6 for the item "When I'm reading, I stop once in a while and go over what I have read".

4.5 Findings for Relationship between learners' drive and use of self-regulated strategies

This section presents data to answer research question 3, i.e., Is there a relationship between learners' drive and cognitive strategy use and their use of self-regulated strategies? To determine if there is a significant association in the mean scores between metacognitive, effort regulation, cognitive, social and affective strategies data is analysed using SPSS for correlations. Results are presented separately in Tables 3, 4, and 5 below.

Table 3.Correlation between learners' Drive and Cognitive Strategy Use

Correlations

		LEARNERSDRIVE	COGNITIVE
LEARNERSDRIVE	Pearson Correlation	1	.709**
	Sig. (2-tailed)		.000
	N	137	137
COGNITIVE	Pearson Correlation	.709**	1
	Sig. (2-tailed)	.000	
	N	137	137

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

Table 3 shows there is an association between learners' drive and cognitive strategy use. Correlation analysis shows that there is a high significant association between learners' drive and cognitive strategy use (r=.709**) 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 learners' drive and cognitive strategy use.

Table 4. Correlation between Cognitive Strategy Use and Self-Regulation

Correlations

		COGNITIVE	SELFREGULATION
COGNITIVE	Pearson Correlation	1	.714**
	Sig. (2-tailed)		.000
	N	137	137
SELFREGULATION	Pearson Correlation	.714**	1
	Sig. (2-tailed)	.000	
	N	137	137

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

Table 4 shows there is an association between cognitive strategy use and self-regulation. Correlation analysis shows that there is a high significant association between cognitive strategy use and self-regulation (r=.714**) 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 strategy use and self-regulation.

Table 5. Correlation between Self-Regulation and Learners' Drive

Correlations

		SELFREGULATION	LEARNERSDRIVE
SELFREGULATION	Pearson Correlation	1	.543**
	Sig. (2-tailed)		.000
	N	137	137
LEARNERSDRIVE	Pearson Correlation	.543**	1
	Sig. (2-tailed)	.000	
	N	137	137

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

Table 5 shows there is an association between self-regulation and learners' drive. Correlation analysis shows that there is a high significant association between self-regulation and learners' drive (r=.543**) 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 self-regulation and learners' drive.

5.0 CONCLUSION

5.1 Summary of Findings and Discussions

In terms of self-efficacy, pre-university ESL students displayed a high level of confidence in their mastery of the course content and materials. The students were also confident in excelling in both their assessments and assignments. The students also displayed positive expectations of their performance in comparison to their peers. The findings highlight their high level of self-efficacy. This correlates with Wang et al.'s (2008) study which found that learners' psychological characteristics impacted their learning results positively.

In the context of intrinsic value, students showed a strong intrinsic motivation to learn from academic setbacks in order to perform better. Students find it crucial to understand the English language course and they find the subject useful. In short, students displayed a high level of intrinsic value in the course itself. This is in line with Girelli et al.'s (2018) claim that intrinsic motivation serves as the highest level of determination for students to have genuine interest in seeking knowledge for personal development. This is echoed by Liu et al. (2022) that when students are intrinsically motivated, they are more likely to enjoy learning to excel academically.

In terms of test anxiety, despite having a high level of self-efficacy and intrinsic value, the students demonstrated a strong sense of anxiety, nervousness, and self-doubt when sitting for an assessment. They become apprehensive when they forget what they have learned and this makes them feel upset. To summarise, contrasting ideas were notably seen between self-efficacy and motivation in comparison to test-taking situations. This is supported by Krishnan et al.'s (2023) study which found that the relationship between motivation and fear of learning a language has low significance.

In the context of cognitive strategy use, it can clearly be seen that students employ the **recalling strategies** when sitting for assessments. This strategy is also applied when reflecting upon what their lecturer had taught them in class. In addition, students are able to synthesise information from lessons learned in class and information found in their textbooks. Lastly, students apply **correction strategies** when doing new assignments based on feedback obtained from the previous ones. This clearly suggests that students resorted to employing cognitive strategies which prove that they are self-regulated learners. A similar finding was also reported by Heikkila and Lonka (2007) who concluded that regulation of learning as an approach to learning is correlated to cognitive strategies and academic success.

For the aspect of self-regulation, it is obvious that students put in the effort to excel in subjects that are least favoured by them. Furthermore, students apply **self-reflective techniques** to ensure they understand what they have been studying. Besides that, students display an attitude of perseverance by completing tasks at hand even though the study materials are uninteresting. Lastly, it can be seen that students demonstrate being proactive in the learning process by applying the **questioning techniques** of what they are going to learn. This finding correlates with Chen et al.'s (2019) study which demonstrated that SRL strategies applied by students played a crucial role in them achieving higher academic results.

5.2 Pedagogical Implications and Suggestions for Future Research

This study looked at students perception of their motivational beliefs and self-regulated learning strategies. Motivational beliefs covered 3 aspects, namely self-efficacy, intrinsic motivation, and test anxiety. In particular, it investigated how students' motivation influences their learning. They were observed to have a high level of confidence to excel in the English language course, and that they also would obtain a good grade for the course. As for intrinsic motivation, students believe it is crucial for them to understand the course content in order to self-regulate their learning process. On the contrary, for the aspect of test anxiety, the students were perceived to have a high anxiety and nervousness level despite having a high level of confidence to excel in the course.

Students perceived to have a strong relationship between motivation and their cognitive strategy use. They employed recalling and correction strategies during assessments and completing assignments. Meanwhile, they were also perceived to possess a positive self-regulated learning process, particularly the self-reflective strategy and questioning techniques to excel in subjects that they less favour or to study the learning materials that they find less interesting. There was in fact a strong relationship between students' motivation and cognitive strategy use and their self-regulated strategies. In particular, the students were motivated to apply several self-regulated strategies such as recalling strategy, questioning technique, self-reflective technique, and correction strategy to excel in the courses being taught.

A number of pedagogical implications can be highlighted based on the outcome of this study. First, educators should embed strategies to motivate students to have self-efficacy and be intrinsically motivated, mainly in reducing their anxiety during test-taking processes by applying self-regulated learning strategies. In particular, educators should employ pedagogical approaches that provide learners with constructive feedback and attainable goals to engage them in more meaningful learning experiences and to improve and decide for themselves ways to make learning more enriching and fulfilling. Despite students' confidence in excelling in their studies, educators must acknowledge students' high level of test anxiety by providing them a supportive learning environment and giving them opportunities for more practices, ample preparation time and revision, as well as reflection on their own learning.

Based on the findings, it is necessary to highlight some theoretical and contextual contributions of this study. Past studies have highlighted that self-regulated learning directly involves different processes – cognitive, metacognitive and motivational. The findings of this study could be applied to further refine the existing learning model such as that of Zimmerman's (1989), or to propose a new learning model that specifically describes the intrinsic details of self-regulated learning and motivation to learn, particularly among pre-university students. The cognitive, metacognitive and motivational processes involved show that self-regulated learning does not occur in isolation, i.e. self-learning model interacts with other models (e.g., the SRL framework model by Pintrich, 2000) in explaining how successful learning takes place. Besides that, the findings also provide contextual contributions to explore SRL and motivation to learn. Among other, educators utilise the SRL strategies identified to modulate pedagogical approaches that could help students to identify and use their own strengths to excel further in the learning process.

Reflecting on the findings of this research, some recommendations can be put forward for future work. In particular, the current research is confined to respondents chosen from only one centre of foundation studies. Using a bigger number of respondents from more pre-university centres might shed more light on the relationship between motivation and self-

regulated learning. In addition, utilising a qualitative study involving respondents of various programmes at the pre-university level would enrich the existing literature on motivation and self-regulated learning. Finally, incorporating more variables such as demographic characteristics, linguistic background, and the like, to elucidate students' motivation and self-regulated learning in future research work would also be beneficial.

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