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# A Study of The Factors that Influence Learners' Drive to Be Self-Regulated

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#### Abstract

This study investigates the factors that influence learners' drive to be self-regulated. The study explores the learner's perception of self-regulated learning strategies, self-efficacy, intrinsic value, and test anxiety. This study is a quantitative study using survey questionnaires as its instrument. A total of 221 respondents participated in this study. The respondents were students from a public university in Malaysia. The instrument used is a survey, The findings of the study revealed that there is a significant association between learners' drive and self-regulated learning. Respondents also perceived self-regulated learning strategies. self-efficacy, intrinsic value, and test anxiety are the drivers of self-regulated learning. **Keywords:** Self-Regulated Learning, Self-Efficacy, Test Anxiety, Intrinsic Values

#### introduction

# Background of Study

Self-regulated learners have been defined differently by various researchers. Zimmerman (2013) for instance defined Self-regulated learning as the self-directive process through which learners transform their mental abilities into academic skills. This definition emphasizes the idea that learners have the ability to transform their mental abilities into academic skills through a self-directive process. This definition is consistent with the definition postulated by Bol & Hacker (2001) where self-regulated learners refer to the ways in which students actively and constructively regulate their own thinking, motivation, affect, and behavior during learning. This definition of self-regulated learning emphasizes that learners are actively

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involved in regulating various aspects of their learning, including their thinking, motivation, affect, and behavior. Andrade (2000) offers a slightly different definition where self-regulated learners have a sense of agency over their learning, which involves setting goals, monitoring progress, and reflecting on outcomes to inform future action.

A key determinant of whether learners employ self-regulatory strategies rests in the beliefs they hold about their capabilities to do so (see Zimmerman & Cleary, 2006). Hence, knowing self-regulatory strategies is not enough to ensure their effective use; students must also possess the belief that they can use them effectively. This belief in one's self-regulatory capabilities, or self-efficacy for self-regulated learning, is an important predictor of students' successful use of self-regulatory skills and strategies across academic domains (Bandura et al., 1996, 2001; Bandura et al., 2003; Bong, 2001; Zimmerman & Bandura, 1994; Zimmerman et al., 1992; Zimmerman & Martinez-Pons, 1990). Self-efficacy, popularly known as confidence, refers to beliefs in the capabilities to carry out the courses of action needed for

desired goals; self-regulated learning refers to the ability to regulate cognition, motivation, affect, and behavior in a learning context. As people enact their self-efficacy beliefs, they demonstrate a degree of control over (a) the activities they choose to pursue, (b) the persistence they display in the pursuit of goals, and (c) their reactions to challenges and failures (Bandura, 1997)

Self-efficacy, defined by Bandura (1977) as "the conviction that one can successfully execute the behavior required to produce the outcomes," influences a wide range of behavior (Linnenbrin & Pintrich, 2003). According to Pintrich and De Groot (1990), the intrinsic value component includes students' goals and beliefs about the importance and interest of the task. These authors demonstrated that self-efficacy and intrinsic value were positively related to learning strategy and performance.

Apart from self-efficacy, self-regulated learning also is related to aspects of anxiety. One of the important aspects of anxiety is test anxiety and this type of anxiety is studied in the literature for years. Test anxiety is actually a type of performance anxiety — a feeling someone might have in a situation where performance really counts or when the pressure's on to do well (Mashayekh & Hashemi, 2011).

In recent years, there is a growing interest in self-regulated learning studies in Malaysia. A number of studies have been conducted in order to understand the phenomena of self-regulated learning in Malaysia (See, for example, Kosnin, 2007; Lim et al., 2020; Yen et al., 2005). Therefore, this study aims to understand the drivers of learners' self-regulated learning.

# Statement of Problem

All Malaysian educational institutions open for physical class instruction in October 2022 with the requirement of health protocols and vaccination programs. According to Abdillah and Sueb (2022), the transition from pandemic to post-pandemic affected how educators and students perceived shifted learning activities. Since motivation and new learning, abilities, methods, and behaviors are interrelated, motivation should be taken into account during the learning process. Learners' achievement levels to their view of their learning environment, drive and energy, and actions of the learners are only a few of the ways that motivation affects student academic performance (Mehndroo & Vandana, 2020). Another body of research suggests that students who are highly motivated to learn may complete the curriculum's learning objectives (Kickert et. al., 2022; Desmet & Pereira, 2022). Furthermore, students that are motivated to study participate actively in their studies. Thus, it enhances their capacity

for learning. This means that in order for learning activities to go smoothly, motivation is necessary to pique learners' interest in learning.

According to Firmansyah et al (2023), one of the biggest problems in education is the loss in learners' motivation to learn. Through the deployment of online learning, students gain experience using technology-based and self-paced learning styles (Rahmawati & Sujono, 2021; Heo et al., 2021). However, when participating in face-to-face or blended learning, students may encounter motivational barriers. It's crucial to maintain students' attention in the classroom during the post-pandemic era, as well as their motivation to complete their homework. Since motivation provides important information on students' learning growth and maintains the continuation of the long-term learning process, it is crucial to evaluate students' motivational orientations. According to Mauliya et al (2020), students today encounter difficult learning circumstances both inside and outside the classroom, which leads to a number of issues like a lack of focus and concentration. The researchers go on to say that the disintegration of students was the root cause of both external (such as family issues, social and emotional problems, and financial situations), as well as internal (such as class size, classroom dynamics, textbooks, and exams, learning resources, and technology) disturbances. These elements could discourage students from learning since they find the lessons difficult to engage in, which makes them unwilling to learn. Not only that, but the researchers also state that low levels of student confidence, unmet expectations in the classroom, lack of appreciation or support from families, and high expectations from families are factors that contribute to students' low motivation for learning, which has a negative impact on their academic performance.

However, there hasn't been much research done on students' motivation for learning in Malaysia following the Covid-19 pandemic. A study conducted by Curione et al (2022) examined the motivational orientation of students in their self-regulated learning among students in Argentina and Uruguay. Due to the small sample size and the fact that the students were all from the humanities and social sciences, the researchers emphasize that their findings cannot be applied to the entire country. In light of these constraints, it is vital to carry out the same research in various regional contexts, as the motivational orientation may vary depending on the patterns of course taking. To understand students' motivation to learn in the post-pandemic age, more information is needed. The current study, therefore, investigated this issue. The higher education institution is the subject of this investigation. This knowledge will help educators find ways to improve the curriculum and promote student learning.

#### **Objective of the Study and Research Questions**

This study is done to explore the perception of learners' drive and its influence on their selfregulated learning strategies. Specifically, this study is done to answer the following questions;

- How do learners perceive their self-regulated learning strategies?
- How do learners perceive their self-efficacy?
- How do learners perceive their intrinsic value?
- How do learners perceive their test anxiety?
- Is there a relationship between learners' drive and self-regulated learning?

#### **Literature Review**

Motivation for Learning

Individuals' motivation for learning serves as a primary driver, impacting the direction, tenacity, and perseverance of their efforts to accomplish learning objectives. The learning behaviors and outcomes of students are significantly influenced by motivation. According to a study by Ferraro et al (2022), when students are motivated to learn, it improves their academic performance, establishes their happiness with the learning journey, raises the learning quality, and makes their learning techniques effective. The authors went on to say that both internal (curiosity and willingness to help others) and external (teacher excitement, teaching methods, and gaining qualification) elements may affect learners' motivation to study. The existence of motivators gives people the willpower they need to complete the task.

#### Self-Regulated Learning Strategies

Pintrich's self-regulated learning (SRL) strategies were introduced as follows: rehearsal, elaboration, organization, critical thinking, metacognitive self-regulation, time and study environment, effort regulation, peer learning, and help-seeking (Pintrich et al., 1991). In 1986, Bandura and Cervone found that these strategies interact with one another in each cycle, changing the student's SRL skills and strategies (Bandura and Cervone, 1986). Relating to the perspective of social cognition, the development of SRL skills and strategies is affected by the interaction of personal, behavioral, and environmental factors, in the form of reciprocal causality (Zimmerman and Bandura, 1994).

The role of learning strategies in gaining academic success has been widely investigated for campus-based college students. In 2012, Richardson, Abraham, and Bond conducted a retrospective study and meta-analysis of the relationship between college students' learning strategies and GPA. The results showed that effort regulation was the most important learning strategy positively correlated with academic outcomes, followed by time and learning environment management and metacognitive self-regulation, whereas rehearsal, elaboration, and organization had the least empirical support (Richardson et al., 2012).

The development of SRL is an active process. With the changes and development of students' learning environments, SRL strategies will inevitably change as well. Research has found that the most powerful SRL strategies are metacognition, time management, and effort adjustment (Richardson et al., 2012). Broadbent and Poon found that four learning strategies including metacognition, time management, effort regulation, and critical thinking were significantly associated with online learners' grades (Broadbent and Poon, 2015). To sum up, the existing literature showed that in an online learning environment, SRL strategies were related to students' academic performance. However, due to the different characteristics of each learning strategy and the different challenges faced by students, the effect of the SRL strategies involved in predicting academic performance may be different in different environments.

#### Past Studies on Motivation for Learning

Many Studies have been done to investigate the motivation for learning. Filgona (2020) motivating the learner to learn is pertinent to curriculum implementation. This is because motivation is an influential factor in teaching-learning situations. The success of learning depends on whether or not the learners are motivated. Motivation drives learners in reaching learning goals. It is important to recognize the fact that motivating learning is a central element of good teaching. This implies that learners' motivation is probably the single most important element of learning. Learning is inherently hard work; it is pushing the brain to its limits, and thus can only happen with motivation. Students' motivation to learn is of special

importance because students' mere presence in the class is, of course, not a guarantee that students want to learn. Motivating the learner to learn is pertinent to curriculum implementation. This is because motivation is an influential factor in the teaching–learning situations. The success of learning depends on whether or not the learners are motivated. Motivation drives learners in reaching learning goals. Since modern education is compulsory, teachers cannot take learners' motivation for granted, and they have a responsibility to ensure learners are motivated to learn (Borah, 2021).

There have been many past studies on motivation learning. The study by Rocio & Jose (2015) highlights the importance of motivation in the process of learning English as a foreign language. For that purpose, some factors that affect motivation are described, using as a starting point the answers obtained from a questionnaire given to students in their fourth year of compulsory secondary education. The main conclusions of the research show the fundamental role of factors such as the teacher, the four skills, students' interests, and daily habits, among others.

## Past Studies on Self-Regulated Learning Strategies

Many studies were conducted looking at self-regulated learning strategies in understanding the student's motivation. The study by El-Adl & Alkharusi (2020) was conducted involving students in Sultanate of Oman to investigate their learning motivation in mathematics. Their findings found that their self-learning strategies were related to students' intrinsic value. The study adopt questionnaire on Motivated Strategies for Learning Questionnaire developed by Pintrich and De Groot (1990) to measure students' self-regulated learning strategies and motivation. Meanwhile, a study done by Milligan et al (2015) among the workers in the Finance industry found an interesting finding. It confirms the relationship between the learning opportunities and learning undertaken by the organization. The study employs workplace learning context to predict the ability of the learner to self-regulate their learning, in which the result confirms the relationship existed.

Another study conducted examining the reflective journals written by first-year university students revealed that the reflective journals served as an insightful resource for learning about the difficulties faced by first-year students as well as an efficient instrument for self-reflection and self-evaluation (Perander et al., 2021). This study, however, could not be generalized to all students as it employs content analysis using the students' reflective journals.

#### **Conceptual Framework**

Figure 1 shows the conceptual framework of the study. This study explores factors that cause the drive to be self-regulated learners. According to Rahmat (2021), a person's thoughts will determine his/her actions. So, it is the learners' personal drive that determines their success. Learning today requires learners to be able to be self-regulated in order to succeed. With the influx of information and knowledge coming from the internet, learners are constantly put in the position to be self-regulated to succeed. According to Pintrich & De Groot (1990), learners' drive is influenced by their (i) self-efficacy, (ii) intrinsic value, and (iii) test anxiety. Self-efficacy refers to the person's belief in his /her abilities to perform a behavior. Intrinsic value refers to the interest and enjoyment that the learners experience when participating in a chosen activity. Finally, when a person has test anxiety, he/she is under pressure to perform well in a given test situation.

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Figure 1- Conceptual Framework of the Study-The Influence of Learners' Drive on Their Self-Regulated Learning Strategies

## Methodology

This quantitative study is done to explore motivation factors for learning among undergraduates. A purposive sample of 224 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted from (Pintrich & De Groot, 1990) on learners' drive to learn and their use of self-regulated strategies to reveal the variables in table 1 below. The survey has 3 sections. Part one has items on demographic profile. Part two has 22 items on learners' drive. Part three has 22 items on self-regulated learning strategies.

#### Table 1

Distribution of Items in the Survey

PART	STRATEGY		SCALE	No	Total
				Of	Items
				Item	
				S	
TWO	LEARNERS' DRIVE	А	SELF-EFFFICACY	9	22
		В	INTRINSIC VALUE	9	
		С	TEST ANXIETY	4	
THREE	SELF-REGULATED	D	COGNIVE STRATGY USE	13	22
	LEARNING				
	STRATEGIES				
		Е	SELF-REGULATION	9	
	TOTAL NO OF ITEMS				44

Table 2 *Reliability of Survey* 

Cronbach's Alpha	N of Items	
.931	44	

**Reliability Statistics** 

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .931, 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

A total of 221 respondents responded to this online survey. Out of 221 respondents, 14% of them are male and 86% respondents are female.

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# Q2 Faculty





The majority respondent are from the Faculty of Administrative Science and Policy Studies which accumulated to 88%. Followed by 7% from the Faculty of Computer and Mathematical Sciences. Small percentages are 4% and 1% from the Faculty of Sports Science and Faculty of Business Management.



Q3 Age

Figure 4- Percentage for Age

From the table above, the majority of the respondents aged between 20-21 years old which represent 73% of respondents. 22% fall under the 22 to 23 age group while the rest of the respondents aged between 24 and above consist of 5%.

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Q4 Academic Background



Figure 5- Percentage for Academic Background

For the academic background, majority respondents are holding diplomas which represent 67% of total respondents. This is followed by respondents holding STPM/Asasi/Matrix which represents 17% of total respondents. While respondents holding SPM represented 16% of total respondents.



Q5 Semester

Figure 6- Percentage for Semester

Figure 6 above shows the percentage of students by semester. Majority of the respondents are form semester 5 and above. This is followed by students from semester 3 and 4 which is 28%. while students from semester 1 and 2 respectively are 25%.

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#### Findings for Self-Regulated Learning Strategies

This section presents data to answer research question 1- How do learners perceive their selfregulated learning strategies? In the context of this study, self-regulated learning strategies involve the use of (i) cognitive strategy use and (ii) self-regulation.



Figure 7: Mean for Cognitive Strategy Use

The results in Table 7 highlight items in cognitive strategy assert a medium-high average mean score range from 3.3 to 4.1. As shown in Table 7, Item 3 "It is hard for me to decide what the main ideas are in what I read" ranked the lowest mean score with 3.1. while Item 1, Item 3, and Item 8 ranked the highest mean score with 4.1.

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The most important indicator of successful self-regulated learning would be the student's selfdiscipline in working hard to get a good grade even if he or she dislikes the class (Q9=4). The next contributing factors would be the students' own initiative in knowing the materials needed for self-learning and the knowledge that he or she wishes to acquire from the learning (Q1 and Q5=3.8). Supporting factors, such as being self-motivated in learning dull and uninteresting chapters and revising materials read are also key motivators in SRL (Q4 and Q8=3.6). A slightly discouraging actor for SRL is when students study for class but cannot comprehend the materials being read (Q6=3.4). Other declining factors which do not motivate SRL viz; when students give up or study only the easy parts when work is hard (Q2=3.2) when students don't do practice exercises and answer end-of-chapter questions (Q3=3.1), and when students don't listen and/ or concentrate when the teacher is teaching (Q7=3). In summation, the results show that students do practice self-regulated learning strategies in their learning process.

#### Findings for Self-Efficacy

This section presents data to answer research question 2- How do learners perceive their self-efficacy?

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#### SELF-EFFICACY (9 items) MBSEQ9I know that I will be able to learn the material 3.5 for this class MBSEQ8Compared with other students in this class I 3 think I know a great deal about the subject. MBSEQ 7My study skills are excellent compared with 2.9 others in this class. MBSEQ61 think I will receive a good grade in this class. 3.3 MBSEQ5I am sure I can do an excellent job on the 3.5 problems and tasks assigned for this class. MBSEQ 4Compared with others in this class, I think I'm 3 a good student MBSEQ 3I expect to do very well in this class. 3.6 MBSEQ2I'm certain I can understand the ideas taught 3.6 in this course. MBSEQ1Compared with other students in this class I 3.3 expect to do well. 0 0.5 1 1.5 2 2.5 3 3.5 4

Figure 9- Mean for Self-Efficacy

Figure 9 shows the statistics for the mean value for the independent variable between selfefficacy. Based on the results of the mean value, the most important indicator of self- efficacy is that students understand the ideas taught in this course (Q3=3.6) and students expect to do very well in this class (Q=3.6). The lowest mean value reported was for student study skills that are excellent compared with others in this class (Q7=2.9).

# Findings for Intrinsic Value

This section presents data to know how learners perceive their intrinsic value, as stated in Research Question 3. The respondents were asked to measure their intrinsic value by answering these nine items. A mean score between 4.01 to 5.00 was considered to reflect high levels of intrinsic value, scores between 2.01 and 3.00 reflect medium levels of intrinsic value, and scores between 1.0 and 2.00 indicate low levels of intrinsic value.

Results as shown in Figure 10 revealed that among all, the highest mean value for intrinsic value is 4.2, which respondents believed that understanding the subject is important to them, thus leading to their motivation to learn.

The second item with the highest score is items 6 and 7, which shows that even if the students do poorly on the test, they will try to learn from their mistakes for better learning. Also, they agreed that what they learn in class is helpful for them. This shows that students who are interested in learning, feel that the material is essential, have control over their learning, and have faith in their learning capacity are more likely to succeed. Therefore, it can be concluded that the students are aware of their intrinsic value in learning with the mean value at 3.85.

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#### Intrinsic Value (9 items)





# Findings for Test Anxiety

This section presents data to answer research question 4- How do learners perceive their test anxiety?



# Test Anxiety (4 items)

Figure 11- mean for Text Anxiety

This study found that the third measurement of learner's drive is test anxiety has a low-level influence towards learning motivation. The results in Figure 11 summarize that, Item 2 has the lowest average mean score of 2.4. It shows that the students do not have uneasy or upset feelings when taking a test. However, the students do have worries about the test. Then the mean score for worry about the test is 3.8. The result above demonstrates that students do experience anxiety when it comes to tests which eventually will affect their academic performance.

Findings for Relationship between learners' drive and self-regulated learning This section presents data to answer research question 5- Is there a relationship between learners' drive and self-regulated learning?

To determine if there is a significant association in the mean scores between learners' drive and self-regulated learning data is analysed using SPSS for correlations. Results are presented separately in table 3 below.

		TOTALLEARN ERSDRIVE	TOTALSELFR EGULATED
TOTALLEARNERSDRIVE Pearson Correla		1	.710 <sup>**</sup>
	Sig. (2-tailed)		.000
	Ν	224	224
TOTALSELFREGULATED	Pearson Correlation	.710 <sup>**</sup>	1
	Sig. (2-tailed)	.000	
	N	224	224

# Correlations

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

Table 5 shows there is an association between learners' drive and self-regulated learning. Correlation analysis shows that there is a high significant association between learners' drive and self-regulated learning ( $r=.710^{**}$ ) and (p=.000). According to Jackson (2015), a coefficient is significant at the .05 level, and positive correlation is measured on a 0.1 to 1.0 scale. A weak positive correlation would be in the range of 0.1 to 0.3, a moderate positive correlation from 0.3 to 0.5, and a strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between learners' drive and self-regulated learning.

#### Conclusion

# Summary of Findings and Discussions

The first question of the study concerns the learner's perception of self-regulated learning strategies. Through mean analysis, the study figured out that, both cognitive strategies and self-regulation strategies affect self-regulated learning positively. Consequently, this result is congruent with the research conducted by Nilson and Zimmerman (2018) where self-regulated learning is closely related to the way in which students regulate their emotions, behaviors, and environmental aspects during a learning experience. In addition, AlarioHoyos et al. (2017) mentioned that self-regulated learning is the ability of the learner to control and regulate his own learning through the usage of cognitive strategies. s. In similar thought,

Spruce and Bol (2015) improving self-regulated learning strategies is possible through teaching activities that encourage students to self-monitor and control their performance.

Next, the study also tested the learners' perception of their intrinsic value. These results support the view that self-regulated learners are intrinsically motivated. This is in accordance with cognitive evaluation theory, intrinsic motivation was enhanced when students perceived they were competent and when they had control over their performances. This suggests that students who are motivated to learn, perceive the subject as valuable, can control their learning, and are confident in their capability to learn are more likely than others to use cognitive and self-regulated strategies. This might be attributed to the fact that positive personal beliefs of motivation tend to hold students accountable for their learning (Daniela, 2015). Learners were confident that they could learn new things and know the importance and usefulness of the lessons taught in the class. They believe that they learn from their mistakes. The study also found that learners highly believed that understanding the subject is important for them which led to their motivation to learn. Apart from that, learners also believe that, if they do poorly on the test, they will try to learn from their mistakes. This shows that students who are interested in learning, feel that the material is essential, have control over their learning, and have faith in their learning capacity are more likely to succeed.

The third question of the study is on the learner's perception of test anxiety. The study reveals that students do not have uneasy or upset feelings when taking a test. This finding is reasonable, to the extent that people who regulate their behavior would make better use of mechanisms that reduce or inhibit negative emotionality, and anxiety in particular. The findings of the study are in line with prior studies (Bembenutty, 2008; Kitsantas, Winsler, & Huie, 2008).

Finally, the last research question is to identify the relationship between a learner's drive and self-regulated learning. Based on the analysis, it was proved that there is a significant association between learners' drive and self-regulated learning. The results of the study are in line with past studies like in (Bahri & Corebima, 2015, Lai, 2011, Landine & Stewart, 1998; Schraw et al., 2006; Yunanti, 2016).

When students are motivated to learn, they are more likely to devote the time and energy needed to learn and apply appropriate SRL skills (Zimmerman, 2005; Mahmoodi et al., 2014). SRL allows students to complete the goals set, and will enable them to monitor and assess their performance and then make appropriate adjustments (Pintrich, 1995: 5). SRL is an active construction process in which students set their learning goals and try to monitor, manage, and control their cognition, motivation, and behavior, guided and limited by the goals and contextual features in their environment (Mustofa et al., 2018)

#### (Pedagogical) Implications and Suggestions for Future Research

This study also has pedagogical implications in teaching since teaching students about different cognitive and self-regulatory strategies may be more important for improving actual performance on classroom academic tasks and improving students' self-efficacy beliefs may lead to more use of these cognitive strategies (Pintrich & DeGroot, 1990). Student performance has been shown to be significantly improved after the training of SRL strategies (Butler, 1998; Neilans & Israel, 1981; O'Malley, 1987), and students trained to use strategies have become more self-regulated (Travers & Sheckley, 2000). Although teaching is not the

focus of this study, teaching and learning are an integral part of education. Thus, an investigation of children's self-efficacy and SRL strategies may make significant contributions to both the teaching and learning processes.

This study has some limitations. First, data were collected from a self-reported questionnaire which depends solely on student self-assessment of their self-efficacy and SRL strategy. Although the study passed the reliability and validity analysis, qualitative data such as interviews could support the robustness of the findings of this study. Second, the sample is limited to a single university. There are significant gaps in regard to meeting students' needs. Therefore, future research is strongly suggested to explore this topic in other university settings.

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