

## การอยู่รอดในยุคการเปลี่ยนแปลงของการจัดการเรียนการสอน:

# การบูรณาการปัญญาที่เกิดจากการเรียนรู้ ความสามารถในการเรียนรู้ และแรงจูงใจในการเรียนรู้ ของนักศึกษาด้วยกลยุทธ์การกำกับดูแลเองในการเรียนรู้ (SRLS) ในการเรียนแบบออนไลน์ และแบบเข้าชั้นเรียนปกติร่วมกัน

# **Surviving the Shift in Pedagogy: Integration of Cognition, Metacognition, and Motivation of Learners' Self-Regulated Learning Strategies (SRLS) During Online and Onsite Classes**

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## บทคัดย่อ

เนื่องจากนักศึกษาต้องมีส่วนร่วมในการเรียนออนไลน์เพิ่มมากขึ้น จึงเป็นสิ่งจำเป็นที่ต้องมีความเข้าใจความแตกต่างของกลยุทธ์การกำกับตนเองในการเรียนรู้ของนักศึกษาที่ใช้ในการเรียนแบบออนไลน์และแบบเข้าชั้นเรียนปกติ เพราะกลยุทธ์การกำกับตนเองในเรียนเรียนรู้ (SRL) มีความสำคัญต่อผลการเรียนและพัฒนาระบบของนักศึกษา และด้วยความท้าทายต่างๆ ที่เป็นเอกลักษณ์เฉพาะกลุ่ม จึงทำให้กลยุทธ์การกำกับตนเองในการเรียนรู้มีความหลากหลายและทำให้มีผลกับการคาดการณ์พัฒนาการของนักศึกษาในการเรียนทั้งรูปแบบออนไลน์และแบบเข้าชั้นเรียนปกติ บทความนี้มีวัตถุประสงค์เพื่อเป็นแนวทางสำหรับนักศึกษาและนักวิชาการในการหากลยุทธ์การกำกับตนเองในการเรียนรู้ที่ดีที่สุดเพื่อนำไปปรับใช้ในสถานการณ์ต่างๆ บทความนี้นำเสนอความรู้ของนักศึกษาเกี่ยวกับการเรียนรูปแบบออนไลน์และความท้าทายที่เกิดขึ้นระหว่างการใช้การเรียนการสอนรูปแบบนี้ พร้อมกับความเปลี่ยนแปลงในด้านต่างๆ ของการเรียนการสอนในรูปแบบนี้ นอกจากนี้ยังมีข้อเสนอแนะและแนวทางในการพัฒนาการจัดการเรียนการสอนโดยการเสนอแหล่งข้อมูลออนไลน์ที่เป็นประโยชน์ รวมถึงความเข้าใจของผลกระทบที่อาจมาพร้อมกับความรู้ด้านเทคโนโลยี ผู้เขียนหวังเป็นอย่างยิ่งว่าทุกคนนี้จะเป็นประโยชน์ต่อภาคการศึกษาในช่วงที่มีผลกระทบจากสถานการณ์โควิด 19

**ຄໍາສຳຄັນ:** ກລຍືທີ່ການກຳກັບຕົນເອງໃນການເຮັດວຽກ, ອອນໄລນ໌, ດ້ວຍຕົນເອງ, ການກຳກັບຕົນເອງໃນການເຮັດວຽກ

## Abstract

As students' engagement in online classes continue to increase, there is a need to understand the differences of the Self-Regulated Learning (SRL) strategies used by students in online and on-site classes. SRL strategies are considered relevant to students' grades and performance. Due to the challenges unique to each group, the variety of SRL strategies implicated could impact the effect and prediction of students' performance in both online and on-site classes. The purpose of this article is to guide both students and educators alike on the best SRL strategies to put in place in different circumstances. This article provides learners' perspectives on online learning, and the challenges that go along with the changing aspects of this pedagogy. The study also seeks to provide recommendations, spearhead improvements in teaching and learning using available online resources, and to understand the effects that accompany little technological knowledge. The authors hope that this paper will provide additional knowledge on the impacts of COVID-19 on the education sectors.

**Keywords:** SRL strategies, Online, In-person, Self-regulated

## 1. Introduction

The self-regulated way of learning is fundamental during independent study, and good self-regulators have developed the skills and habits to be effective learners, exhibiting effective learning strategies, effort, and persistence. The reason for this goal is the orientation towards lifelong learning, which means that learning takes place across institutional boundaries. This includes the consideration of the online classes and in-person classes platforms.

In order to manage the challenge of the continued increase in online courses while still continuing in-person classes with limitations; learners should have certain self-regulated learning (SRL) competencies. Basically this strategy depends on the learning situation. The key for educators is to understand how to foster and train these skills in all students. Therefore, it is timely to explore the SRL strategies used by students in both platforms.

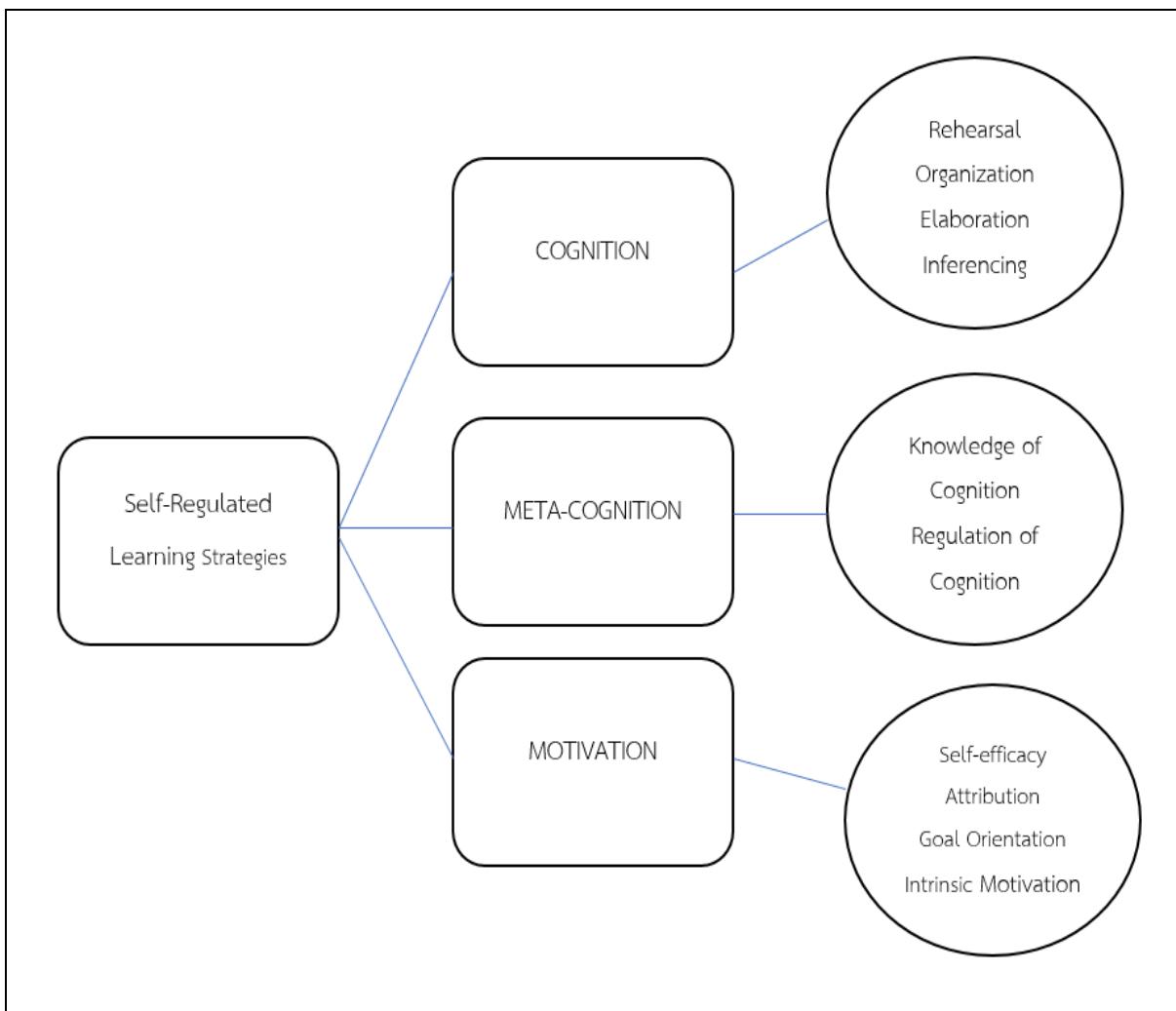
This article has three parts. First, it explains the components of self-regulated learning. Secondly, it explores the relevant research of SRL strategies; thirdly and the most significant part- the survey of SRL strategies used by a group of SAU students. Thus, recommendations could be arrived at the conclusion of this article.

## 2. Components of Self-Regulated Learning

Effective learners are self-regulating, analyzing task requirements, setting productive goals, and selecting, adapting or inventing strategies to achieve their objectives. These learners also monitor progress as they work thorough the task, managing intrusive emotions and waning motivation as well as adjusting strategies processed to foster success. Paris & Paris (2001) pointed out that these are the students who ask questions, take notes, and allocate their time and their resources in ways that help them to be in charge of their own learning.

Experts agree that self-regulated learning includes three main components, including cognition, meta- cognition, and motivation. The research of Schraw et al. (2002) stated that cognition includes skills necessary to encode, memorize, and recall information. Meta-cognition includes skills that enable learners to understand and monitor cognitive processes. Motivation includes beliefs and attitudes that affect the use and development of cognitive and meta-cognitive skills. Each of these three main components is necessary for self-regulation. According to Zimmerman (2000), those who possess cognitive skills, but are unmotivated to use them, for example, do not achieve at the same level of performance as individuals who possess skills and are motivated to use them. Similarly, those who are motivated, but do not possess the necessary cognitive and meta-cognitive skills, often fail to achieve high levels of self-regulation.

The three main components of self-regulation can be further subdivided into the subcomponents shown in **Picture 1**. We describe each of these components below, as well as several finer-grained subcomponents.



**Picture 1.** Components of Self-Regulated Learning by Schraw, Gregory & Kauffman; Douglas & Lehman; and Stephen, (2006).

### 3. Relevant SRL Research

According to Dinsmore, Alexander, & Loughlin, (2008), in the 1980's, the term self-regulated learning originated from the increased focus on self-regulation in academic settings. As stated by Zimmerman & Schunk (2001), a large base of literature has been established on self-regulated learning since the mid-1980's when researchers first began to look at how students become masters of their own learning processes. Today most models of self-regulated learning incorporate

aspects of both meta-cognition and self-regulation focusing on self-monitoring as Dinsmore, Alexander, & Loughlin (2008), and Zimmerman and Schunk (2001; 2008) directly link motivation to self-regulation. According to these researchers, self-regulated students are those students who are metacognitively, motivationally, and behaviorally active in their own learning processes and in achieving their own goals. This is reiterated by the TEAL (Teaching Excellence in Adult Literacy) fact sheet on self-regulated learning on 2010.

The use of SRL strategies are also good indicators of achievement levels. According to the research of Moreno-Marcos et al (2020), students who lack self-regulating learning strategies led to ineffective learning outcomes during in-person classes. A research done by Yu et al. (2021) also pointed out a 91-95% accuracy in recognizing low-achieving students. They concluded that a strong association between the reduction of the behaviors overtime and student achievement. On the other hand, El-Adl and Alkharusi (2020) found out through their research that results revealed statistically positive relationship of SRL and academic achievement. Lee et al. (2020) also made a research that resulted with the analysis showing positive correlation, and they are significant predictors of the use of SRL. Shen et al. (2013) further reiterated that SRL is a vital factor that is positively affecting learner's success; especially noting that online learning self-efficacy is multidimensional.

Several research also indicated that SRL are good predictors. According to Reparaz et al. (2020), SRL can be good predictor of attrition rate among student's completers. The usual regression was noted with students who lack SRL strategies. Another research done by Lee et al (2020) analyzed that SRL strategies, among other things, are significant predictors of perceived effectiveness, which is a measure of satisfaction with traditional online learning. Furthermore, the research of Sun and Wang (2020) showed that SRL can also be used to predict a student's writing proficiency.

#### 4. Methodology

The purpose of this survey is to find out the SRL strategies used by a group of SAU students. The study was conducted at Southeast Asia University in the 2<sup>nd</sup> semester of 2020 which involved the first year Business English major. There were 30 students with nine 9 males and 21

female respondents. The survey materials used were the Motivated Strategies for Learning Questionnaire (MSLQ) by Pintrich & DeGroot (1990), and the Online Self-Regulated Learning Questionnaire (OSLQ) by Bernard et al. (2009).

Table 1 Motivated Strategies for Learning Questionnaire (MSLQ)

MSLQ		%	S	%	A	%
1	I prefer class work that is challenging so I can learn new things.	1	3	15	50	14
2	Compared with other students in this class I expect to do well	2	7	13	43	15
3	I am so nervous during a test that I cannot remember facts I have learned	1	3	11	37	18
4	It is important for me to learn what is being taught in this class	1	3	8	27	21
5	I like what I am learning in this class	1	3	9	30	20
6	I'm certain I can understand the ideas taught in this course	2	7	10	33	18
7	I think I will be able to use what I learn in this class in other classes	1	3	11	37	18
8	I expect to do very well in this class	2	7	8	27	20
9	Compared with others in this class, I think I'm a good student	3	10	15	50	12
10	I often choose paper topics I will learn something from even if they require more work	3	10	12	40	15
11	I am sure I can do an excellent job on the problems and tasks assigned for this class	4	13	9	30	17
12	I have an uneasy, upset feeling when I take a test	16	53	3	10	11

13	I think I will receive a good grade in this class	3	10	9	30	18	60
14	Even when I do poorly on a test I try to learn from my mistakes	1	3	6	20	23	77
15	I think that what I am learning in this class is useful for me to know	1	3	7	23	22	73
16	My study skills are excellent compared with others in this class	6	20	20	67	4	13
17	I think that what we are learning in this class is interesting	1	3	11	37	18	60
18	Compared with other students in this class I think I know a great deal about the subject	5	17	19	63	6	20
19	I know that I will be able to learn the material for this class	2	7	7	23	21	70
20	I worry a great deal about tests	9	30	4	13	17	57
21	Understanding this subject is important to me	1	3	6	20	23	77
22	When I take a test I think about how poorly I am doing	8	27	10	33	13	43
23	When I study for a test, I try to put together the information from class and from the book	3	10	16	53	11	37
24	When I do homework, I try to remember what the teacher said in class so I can answer the questions correctly	3	10	11	37	16	53
25	I ask myself questions to make sure I know the material I have been studying	6	20	12	40	12	40
26	It is hard for me to decide what the main ideas are in what I read	6	20	15	50	9	30

27	When work is hard I either give up or study only the easy parts	16	53	12	40	2	7
28	When I study I put important ideas into my own words	5	17	10	33	15	50

Table 2 Online Self-Regulated Learning Questionnaire (OSLQ)

OSLQ		%	S	%	A	%
GS1	I set standards for my assignments in online courses.	6	20	15	50	9
GS2	I set short-term (daily or weekly) goals as well as long-term goals (monthly or for the semester)	5	17	14	47	11
GS3	I keep a high standard for my learning in my online courses.	6	20	15	50	9
GS4	I set goals to help me manage study time for my online courses.	1	3	17	57	12
GS5	I don't compromise the quality of my work because it is online.	5	17	7	23	18
ES1	I choose the location where I study to avoid too much distraction.	0	0	9	30	21
ES2	I find a comfortable place to study.	2	7	13	43	15
ES3	I know where I can study most efficiently for online courses.	2	7	8	27	20
ES4	I choose a time with few distractions for studying for my online courses.	2	7	14	47	14
TS1	I try to take more thorough notes for my online courses because	3	10	12	40	15

notes are even more important for learning online than in a regular classroom.						
<b>TS2</b> I read aloud instructional materials posted online to fight against distractions.	9	<b>30</b>	7	<b>23</b>	14	<b>47</b>
<b>TS3</b> I prepare my questions before joining in discussion forum.	11	<b>37</b>	5	<b>17</b>	14	<b>47</b>
<b>TS4</b> I work extra problems in my online courses in addition to the assigned ones to master the course content.	6	<b>20</b>	10	<b>33</b>	14	<b>47</b>
<b>TM1</b> I allocate extra studying time for my online courses because I know it is time-demanding.	8	<b>27</b>	9	<b>30</b>	13	<b>43</b>
<b>TM2</b> I try to schedule the same time every day or every week to study for my online courses, and I observe the schedule.	4	<b>13</b>	14	<b>47</b>	13	<b>43</b>
<b>TM3</b> Although we don't have to attend daily classes, I still try to distribute my studying time evenly across days.	2	<b>7</b>	15	<b>50</b>	13	<b>43</b>

#### 4.1 MSLQ Survey Result

##### 4.1.1 The motivated strategies that were always used are the following:

MSLQ 14 (77%) – Even when I do poorly in a test, I try to learn from my mistakes.

MSLQ 21 (77%) – Understanding from this subject is important to me.

##### 4.1.2 The motivated strategy that was moderately used is:

MSLQ 16 (67%) – My study skills are excellent compared with others in this class.

##### 4.1.3 The motivated strategies that were rarely used are the following:

MSLQ 12 (53%) – I have an uneasy, upset feeling when I take a test.

MSLQ 27 (53%) – When work is hard, I either give up or study only the easy parts.

#### 4.2 OSLQ Survey Result

##### 4.2.1 The online strategy that was always used is:

ES1 (70%) – I choose the location where I study to avoid too much distraction.

##### 4.2.2 The online strategy that was moderately is:

GS4 (57%) – I set goals to help me manage study time for my online courses.

##### 4.2.3 The online strategies that was rarely used is:

TS3 (37%) – I prepare my questions before joining in discussion forum.

It can be observed that the strategies that placed in each level are related to each other; which made it easier to identify and classify.

### 5. Conclusion and Recommendation

Overall, there is a strong agreement that self-regulated learning is necessary for academic success. It is noted from the survey that students have almost uniform strategies used even if the survey was done in an independent manner where no sharing or talking was allowed. The survey showed that the most frequently used strategies were choosing the right location to study and understanding/learning from mistakes. The moderately used strategies were centered on goal setting and having a high opinion of his current study skills. The rarely used strategies were centered on preparations for examinations and participation in class. From these insights, we can gather that students should be taught more self-regulated learning strategies in order to adapt it to a suitable platform. Educators should work diligently to help students become successful, independent learners. Self-regulated learning strategies are research-based instructional techniques to help learners monitor and manage their own learning skills and habits. Therefore, it is crucial to help the students form the best self-regulated learning strategies especially in online classes where they have to practice independent learning where social interactions are limited.

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