

# Self-regulated Learning of Japanese University Students in Second Language Acquisition

文学研究科国際言語教育専攻修士課程修了

竹内 香織

**Kaori Takeuchi**

## I. Introduction

Some language teachers have attempted to motivate students by providing rewards in the classroom. Providing rewards might be useful to enhance learner motivation temporarily, and learners might be motivated at the beginning of language learning. However, providing rewards does not encourage learners to acquire the language permanently; learner motivation might be related to receiving rewards from teachers rather than learning languages. If learners study languages in order to receive rewards, learner motivation is extrinsic, and “when extrinsically motivated, people tend to do the minimum amount of work that will yield the maximum reward” (Deci & Ryan, 1985, p. 67). Consequently, enhancing learner motivation without providing rewards is challenging, and learner motivation does not last enduringly. In order to maintain motivation, learner autonomy is considered as one of the crucial components with regard to language learning. “The need for autonomy (used interchangeably with *self-determination*) refers to perceiving one’s self as the origin and regulator of one’s own behavior” (Kirk, 2010, p. 37). Learner autonomy refers to independence in learning, and the concept of learner autonomy is also relevant to self-regulated learning.

The idea of self-regulated learning has been developed in psychology and the learners themselves set learning goals, practice based on the goals they set, review their learning based on their goals, and determine new goals for the next step (Pintrich, 2000; Zimmerman and Moylan, 2009). Recently, the importance of self-regulated learning has been emphasized in education. The learners can decide and design what, how, and when they study without being controlled by their teachers. Many researchers have found that the learners who practice self-regulated learning tend to succeed in learning (Goda et al., 2014; Maftoon & Tasnimi, 2014; Mahmoodi et al., 2014). The learners can become autonomous learners through self-regulated learning and achieving goals.

This research investigated how self-regulated learning affects English language learners in

terms of the learner motivation and achievement in the Japanese university context.

## II. Literature Review

### 1. Self-regulated learning

A key for learning and maintaining learner motivation is how teachers can enable learners to become self-regulated learners. Self-regulated learning (SRL) is a metacognitive strategy, including planning, monitoring and adaptation of learners' cognition (Pintrich & De Groot, 1990, p. 33). Also, self-regulation is a process in which learners adapt their mental abilities to academic skills (Zimmerman, 2002, p. 65). Self-regulated learning comprises three characteristics so that learners can become independent learners. Zimmerman and Moylan (2009) have developed a cyclical phase model of self-regulated learning based on Bandura's social cognitive model. According to Zimmerman and Moylan (2009), learners acquire self-regulated learning through a cyclical process (p. 300). The cyclical process of self-regulated learning is composed of three steps, including a Forethought phase, Performance phase, and Self-regulated phase (Figure 1).

The first stage of the cyclical model of self-regulation is forethought phase. "The forethought phase refers to learning processes and sources of motivation that precede efforts to learn and influence students' preparation and willingness to self-regulate their learning" (Zimmerman & Moylan, 2009, p. 301). In this phase, learners decide strategies about what to study and how to study.

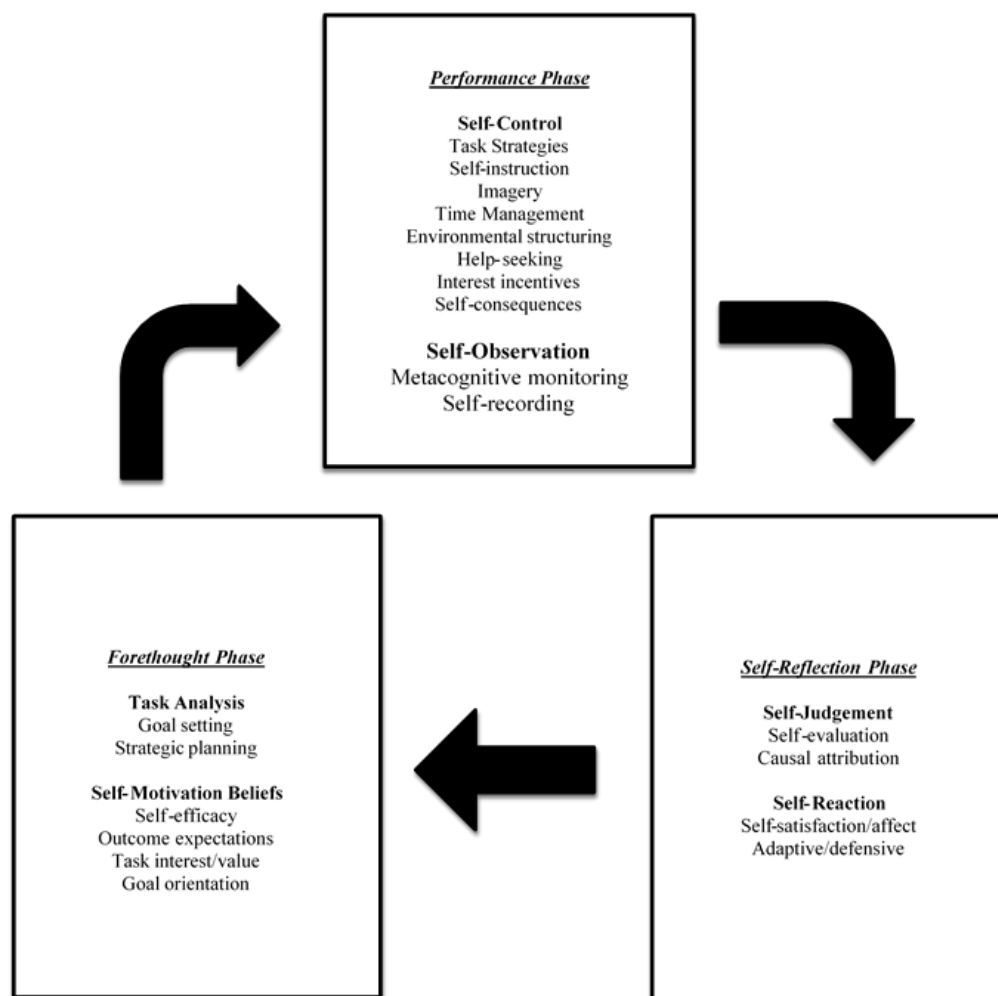
The second step of the cyclical model of self-regulation is the performance phase. "The performance phase involves processes that occur during learning and affect concentration and performance" (Zimmerman & Moylan, 2009, p. 301). In this phase, learners start studying based on their plan and strategies they have decided in the forethought phase. Then, learners monitor themselves while studying and adjust the strategies by self-monitoring and receiving advice from others.

The third stage of the cycle for self-regulation is the self-reflection phase. According to Zimmerman and Moylan (2009), "the self-reflection phase involves processes that follow learning efforts, but influence a learner's reaction to that experience" (p. 301). Learners evaluate their study based on the study

This phase comprises two main categories, including self-judgment and self-reaction. Self-judgement indicates self-evaluation and causal attribution. Self-evaluation is a comparison of learners' performance with standard, and according to Bandura (1986), there are three types of evaluation standards, such as "prior levels of performance, mastery of all components of a skill,

and social comparisons with the performance of others” (as cited in as cited in Zimmerman and Moylan, 2009, p. 304). The causal attributions are also important and are regarded as “beliefs about the causal implications of personal outcomes, such as one’s fixed ability, effort and use of strategies” (Zimmerman and Moylan, 2009, p. 304).

Self-reaction is another category in the self-reflection phase, and there are two key categories related to self-reaction, such as self-satisfaction and adaptive or defensive decisions. Self-satisfaction is construed as cognitive and affective reaction to self-judgement. Students tend to select the learning activities which promote self-satisfaction while learning.



*Figure 1.* A cyclical Phase Model of Self-regulation that Integrates Metacognitive Processes and Key Measures of Motivation Dörnyei’s Process Model of L2 Motivation (Adapted from *Handbook of metacognition in education* (p. 300), by D. J. Hacker, J. Dunlosky, & A. C. Graesser, 2009, New York, NY: Routledge. Copyright 2009 by Taylor & Francis.

As Bandura (1991) stated, the research of activities which lead to learner satisfaction or positive effect while learning has been conducted extensively because the learners prefer activities which satisfy learners, but the learners avoid the activities which lead to dissatisfaction (as cited in Zimmerman and Moylan, 2009, p. 304). With reference to the second key category, adaptive or defensive decisions, the adaptive decisions indicate learners' eagerness to continue to study. On the other hand, the defensive decisions refer to the learners' willingness to avoid dedicating efforts to study in order to evade expected dissatisfaction. Self-reaction influences key components of forethought phases. According to Dweck & Leggett (1988), "positive self-satisfaction reactions are expected to enhance positive motivational beliefs about further efforts to learn such as a stronger learning goal orientation" (as cited in Zimmerman and Moylan, 2009, p. 304).

Various models of self-regulation have been described in previous studies and the models are considered as frameworks of self-regulated learning. Teachers can support learners' efforts to become independent and self-regulated learners by following several guidelines for self-regulated learning (Maftoon & Tasnimi, 2014, p. 847). The following five steps are included in the general guidelines for self-regulated learning;

1. Direct teaching: Self-regulation should be taught directly.
2. Modeling: Teachers show how to study through indirect ways of teaching.
3. Practice: Through practice, learners are required to learn strategies depending on tasks.
4. Self-monitoring: The teachers let the learners monitor themselves.
5. Self-evaluating: The learners are asked to evaluate the learning performance and recognize benefits of self-regulated learning.

The teachers should explain what strategies are useful for learners to regulate self-learning and model how to study. Graham, Harris & Troia (1998) state that the modeling step is one of the crucial phases for teaching self-regulation because the students can observe the teachers and recognize what and how the students should perform in order to conduct the self-regulated learning (as cited in Torrano & Torres, 2004, p. 17). After presenting learners how to regulate their learning, opportunities should be provided for them to practice the strategies and techniques. While practicing, the learners should monitor and evaluate their use of the strategies and techniques and their learning. They should also be required to notice advantages of self-regulated learning.

## 2. Cognitive Counseling

Learners cannot be independent learners without any support. Learners need to know how they can develop learner autonomy. Therefore, teachers need to provide instruction about how learners can become independent learners through self-regulated learning. One of the methods to support learners to acquire skills to become independent learners is cognitive counseling. Ichikawa (1993) introduced 6 techniques to support independent learning through cognitive counseling:

1. Self-Diagnosis: Learners are asked to identify problems by themselves.
2. Diagnostic Questions: Counselors ask questions to identify learners' problems.
3. Schematic Description: Charts and tables are used to explain and teach contents.
4. Figurative Description: Metaphor is used to describe contents.
5. Virtual Teaching: Learners are asked to explain what they have learned as if they would share their understanding with others who do not know.
6. Lesson Induction: Counselors ask learners to reflect on what they have learned.

## III. Research Questions

In previous studies, motivation is considered as a key for achievement and one of the crucial components in self-regulated learning. If the second language learners are independent and self-regulated, will learner motivation be enhanced? Consequently, does influenced motivation based on the self-regulated learning lead to achievement in second language acquisition? Moreover, what factors can influence self-regulated learning, and how are the learners influenced through self-regulated learning? In addition, how can self-efficacy influence language proficiency of learners? In order to investigate how self-regulated learning influences English learners in the Japanese context, the following research questions are formulated:

1. How do language learners go through the process of self-regulated learning?
2. How can self-regulated learning influence learners in terms of motivation, achievement, and self-efficacy?
3. What difficulties do learners face in the process of self-regulated learning?
4. What are important for learners to be independent in the process of self-regulated learning?
5. What is the role of counseling in self-regulated learning?

#### IV. Methodology

##### 1. Data Collection

This study includes both quantitative and qualitative data collection.

Firstly, Motivated Strategies for Learning Questionnaire (MSLQ) is used for quantitative data collection. Pintrich and De Groot (1990) examined the relationships between motivational orientation, self-regulated learning and academic performance in class, and developed 5 point Likert-scale questionnaire named Motivated Strategies for Learning Questionnaire (MSLQ). The MSLQ composes five categories related to motivational beliefs and self-regulated learning strategies, including self-efficacy, intrinsic value, test anxiety, cognitive strategy use and self-regulation (Pintrich & De Groot, 1990, p. 40).

Ogawauchi (2014) used the MSLQ into Japanese by Ito (1996), which was adapted from the original MSLQ. Ogawauchi modified the questionnaire and used 34 questions in the questionnaire in order to investigate the effect of motivation with respect to learning strategies and academic procrastination and checked the validity and reliability of MSLQ (Ogawauchi, 2014, p. 113-115).

Regarding the scale of motivational belief based on MSLQ, Ogawauchi found three factors: Self-efficacy, Intrinsic Value, and Test Anxiety, and  $\alpha$  coefficient of each factor was .88, .78, and .71 (Ogawauchi, 2014, p.115). As for  $\alpha$  coefficient of Test Anxiety was not enough, but the minimum amount of reliability was proved. Therefore, all questions related to motivational belief was used in his analysis.

Concerning the scale of self-regulated learning, Ogawauchi found two factors; Self-regulated Learning and Cognitive Strategy Use.  $\alpha$  coefficient of Self-regulated Learning was .89 and  $\alpha$  coefficient of Cognitive Strategy Use was .60 (Ogawauchi, 2014, p.115). Ogawauchi mentioned that this result was closer to the original MSLQ by Pintrich & Groot (1990) compared to the questionnaire translated into Japanese by Ito (1996). For these reasons, the MSLQ developed by Ogawauchi (2014) was used in order to measure how self-regulated learning would influence the learner motivation and self-efficacy in this study.

As another quantitative data collection, Integrated Motivation Questionnaire is used in this study. Suzuki (2008) developed a questionnaire including 27 questions which were related to attitude and motivation of English language learners. There were four motivational categories in the questionnaire: Class Anxiety, Negative Learning Experience, Integrative and Instrumental motivation. In this research, the researcher modified the questionnaire to focus on integrated motivation of participants, and 6 questions regarding integrative motivation were used to track

participants' motivation weekly to see how self-efficacy, achievement and motivation would be interrelated in self-regulated learning.

The participants were also asked to submit the latest TOEIC score in order that the researcher would provide advice for studying English based on the TOEIC score. In addition, TOEIC test on ALC's Net Academy 2 offered by Soka University was used to measure learners' achievement based on the participants' week study. Each TOEIC test includes 50 questions, including 25 listening questions and 25 reading questions, and the participants received the estimated TOEIC score after undergoing the TOEIC test on ALC's Net Academy 2.

Zimmerman (1996) stated that self-efficacy is a crucial component for learners to monitor because the self-efficacy indicates how the learners think the effect of learning strategy (p. 27). In this research, self-efficacy was measured by means developed by Zimmerman (1996). Before undergoing the TOEIC test, the participants were asked to estimate the score and correct answer rate that would be gained, and were also asked to rate the confidence by using a 3-point scale, including very confident, confident, and not so confident. In order to adjust differences of the estimated score with regard to confidence, the following procedure was used. A point was subtracted from the estimated correct answer rate and the estimated score (-5) for the rating of not so confident. For the rating of confidence, no points were added or subtracted from both estimated correct answer rate and score (0), and for the rating of very confident, a point was added to the estimated correct answer rate, and the estimated score (+5). The researcher tracked the progress of self-efficacy, and the actual TOEIC test score, and analyzed how two factors are interrelated.

In the previous studies, interview or action logs were used to understand self-regulated learning strategies and achievement in English language learning acquisition (Mizumoto, 2013; Goda et al., 2014). In addition, Ichikawa (1993) introduced 6 techniques for cognitive counseling: self-diagnosis, virtual teaching, diagnostic questions, metaphorical description, graphical description, and lesson induction (p. 27-31). The researcher conducted counseling sessions which included repeated interviews and study planning by using action logs in order to investigate self-regulated learning with reference to second language acquisition. Counseling sessions in the study were also held based on the 6 techniques developed by Ichikawa (1993), and was recorded to analyze the conversation to find possible factors which influence learners in self-regulated learning.

## 2. Procedure

The participants were 6 undergraduate students at Soka University, who were over 18 years old, who were interested in TOEIC preparation, and whose proficiency levels on TOEIC were level B (Elementary level-TOEIC Score 350) to level C (Intermediate level-TOEIC 500) based on the criteria by Soka University. This study was based on test preparation for TOEIC and the procedure of this study is suitable for test preparation to support learners. The researcher recruited the 6 undergraduate students at the Writing Center in World Language Center, Soka University. Their motivation toward English was instrumental motivation because they were interested in getting a higher score on TOEIC test for study abroad and improving their score

The participants were asked to complete the MSLQ developed by Ogawauchi (2014), and to write the latest TOEIC score with the student ID on the questionnaire sheet. In addition, the participants were asked to respond to weekly integrated motivation questionnaire.

After responding to the questionnaires, the participants were asked to participate in counseling sessions. In the counseling sessions, the participants set long-term goals and weekly action plans and were also asked to answer several questions to determine the participants' purpose of the study. Then, the participants studied based on a weekly action plan and were asked to write a study record on the action log sheet.

After completing the weekly study, the participants were asked to review the weekly study and write comments on the reflection sheet in the student packet. In addition, the participants were asked to undergo the TOEIC test on the Net Academy2 at the end of the week. Before undergoing the TOEIC test, the participants were asked to write the estimated score and evaluation of the confidence related to the estimated score on the weekly action log sheet. After finishing the TOEIC mock test, the participants were asked to record the score that was received on the TOEIC test, print out the results of the TOEIC test, and review the weekly study based on the reflection sheet provided by the researcher. After completing the weekly study, the participants were asked to bring the printed the TOEIC test score sheet and return the reflection sheet with the weekly action plan and action log sheet in the next counseling session. During the next counseling session, those materials were used to set the students' next goals. The counseling session were repeated seven times, and in the 4th counseling sessions, the researcher showed the progress of their motivation, TOEIC score and self-efficacy. After completing all counseling sessions, the participants were asked to review the study and the study support during the main study, and to write comments on the reflection paper for the term.



### 3. Data Analysis

Individual TOEIC scores and the MSLQ in a pre-counseling and a post-counseling were compared, and the estimated score of TOEIC test, self-confidence, and the scores that the individual participants received on the weekly TOEIC test were recorded and analyzed as to how each factor is interrelated. The degree of self-efficacy was calculated based on a scale suggested by Zimmerman (1996).

Data from each counseling session was analyzed by using the KJ Method (Kawakita, 1970). This study followed steps suggested by Tanaka (2012). The recorded counseling sessions were transcribed into written form, and the written texts were analyzed based on factors which might influence the participants with respect to self-regulated learning, self-efficacy, and learner motivation and labels were created. After creating labels, the researcher organized the labels by creating larger groups and provided the header for each group. Lastly, the relationships among headers were considered, and the findings were visualized in the form of a diagram.

## V. Results

### 1. Results from quantitative data collection

The 6 participants were asked to respond to MSLQ before and after counseling sessions in this study, and Table 1 shows the comparison of pre-MSLQ and post-MSLQ. Regarding Motivational Belief, all components including Self-efficacy, Test Anxiety, and Intrinsic Value were enhanced in the research. On the other hand, Self-regulation was improved in Self-regulated Learning, but Cognitive Strategy Use was not improved. One of the possible reasons why the score of Cognitive Strategy Use was decreased might be that one of the participants stopped studying and going through the cycle of Self-regulated learning, and eventually, the score of the participant's cognitive strategy was decreased and influenced the average score of Cognitive Strategy Use.

In addition, the participants' self-efficacy, TOEIC score as achievement, and motivation were measured every week in the present research. Almost all of the participants were able to improve their self-efficacy, TOEIC score as achievement, and motivation through self-regulated learning from the first study week to the sixth study week and were able to enhance self-efficacy and motivation and improve TOEIC score for the six weeks.

Table 1.

*MSLQ Results*

	Motivational Beliefs				Self-regulated learning		
	SE	TA	IV	Average	SR	CS	Average
Pre	3.12	2.16	3.79	3.05	3.67	2.79	3.46
Post	3.34	2.50	4.25	3.31	3.80	2.70	3.61
Difference	+0.22	+0.34	+0.46	+0.26	+0.13	-0.09	+0.15

*Note.* SE=Self-efficacy; TA=Test Anxiety; IV= Intrinsic Value; SR=Self-regulations; CS=Cognitive Strategy Use

## 2. Results from qualitative data collection

Each participant was asked to write their weekly action log in counseling sessions and based on their action logs, the students studied and kept their study record as their action plan. In the next counseling session, the participants were asked to bring their action log and action plan, and they reflected their study with the researcher. Based on the feedback, the learners decided the action logs of the following week.

In addition, data from counseling session was analyzed based on the process of KJ method described by Tanaka (2012) and under the guidance of the researcher's advisor throughout the process. All recorded counseling sessions were transcribed and each statement was written on a piece of paper. As the first step of the analysis, all statements were categorized into several groups after transcribing data from counseling sessions and there were also some cards which did not belong to any group. Then, statements were named as raw data, the core meanings were elicited from the raw data and labels were created. In addition, keywords underlined in the labels were described (see Table 2).

Table 2

*The 1st Step of KJ Analysis: Label Making*

	Raw data	Label	Key words in the statement
A7c [6]	I think it is important to have time that I only study English even though I have other assignments to do.	Setting a schedule for only studying English might be useful.	routine schedule time management
C4c [4]	Whenever I went to SPACe, I studied.	Going to SPACe is a good habit to keep studying.	habit routine environment
C5c [6]	I want to read books before sleeping even if I am tired or it might be possible to read only a few pages.	Reading books before sleeping might be a good habit to study.	habit routine time
E4c [6]	My life rhythm is fixed, so I think I should set the minimum goal for studying and add to my life rhythm.	It is important to decide what I should do and the schedule for study	schedule time

*Note.*A7c [6] =Student A, week of counseling or reflection, and question number

After creating labels, these labels were categorized into the bigger groups in the second step. Table 3 describes label groups found in the research. The labels created in the first step were categorized based on keywords related to phases of self-regulated learning, such as motivation, goal settings, time management, strategy planning, and self-reflection. As a result, 23 label groups were created. Also, there were several cards which did not belong to any group in the 2nd step of KJ analysis.

Table 3

*The 2nd Step of KJ Analysis: Label Grouping*

Group	Cards	Group label
a	B5c[5], B6c[5], C2c[6], C6c[5],	Motivation goes down when studying weak points.
b	B2c[3] B5c[3], E2c[3], E3c[6], E5c[5],	Dissatisfaction is caused when it was difficult to study what was expected or to improve the test score.
c	A2r[8], C7c[9], D1r[8] E4c[3]	Understanding purposes of study leads to higher motivation to study.
d	A3c[3], A6c[6], B1r[8], B2r[8], B5c[6], D3r[8], D7c[3], E1r[8], E3r[8]	Goal setting should be done precisely.

e	A7c[6], C4c[4], E5c[6]	Study time should be set in the daily schedule.
f	B1r[7], B2r[7], C1r[6], C2r[7], D1r[7], D2r[8], E1r[7], E2r[7], E3r[7]	Both balance and time management are important.
g	A3c[5], C2c[3]	It is crucial to continue to study consciously.
h	A2r[7], B1r[7],	It is hard to restart studying after stopping the study.
i	C7c[10], F3c[3], F4c[6], F6c[6]	The method to keep focusing on the study should be found.
j	B3c[3], F4c[3]	Maintaining concentrations and keeping studying are important.
k	A1r[7], A2c[5], B4r[7], C1r[8], E3c[5]	Abilities to concentrate should be acquired through practice.
l	D7c[6], E7c[6], F2c[5], F5c[6], F6r[8],	Finding the best way to study which might be useful for individuals is important.
m	B3c[5], C4c[3], C6c[3], D6c[4], F6c[7]	Study was done through schedule adjustment.
n	A1c[1], C4c[1], D1c[1], F1c[1]	The purpose of study is to improve the test score and to communicate with others in English.
o	A5r[8], A6c[3], A7c[4], C2c[5], C3c[4], C6c[4], E4c[4], E6r[7], E7c[4], F6c[4]	By reflecting ourselves through study, self-efficacy was enhanced.
p	F2r[7], F3r[7]	The situation that there is a plenty of time never happens.
q	B2c[3], B2c[4], B3c[4], B3c[6], C3r[7], E2c[4], F1r[7]	Lower goals and something easy to do were set and completed.
r	B3r[7], B3r[8], D4c[3]	Reducing the amount of study does not always mean achievement of a weekly goal.
s	A3r[7], C2r[8], C3r[7], F1r[7], F1r[8]	There is a hope to have more time or enough time to study.
t	B1r[7], B1r[8]	Both quantity and quality are important to study.
u	B5c[1], C7c[9], E6c[7]	Motivation towards study has enhanced.
v	A7c[9], B7c[9], C7c[9], F7c[9],	Goals are clearly defined and more concrete.
w	B6r[7], C6c[6], D3r[7], E6c[6], F5c[3], F5c[4]	F2c[3], Time management should be done by using time effectively.
Card		
B2r[8]	Mid-term exam for other subjects starts next week, so I want to change the amount of time to study English.	
B5c[5]	I feel that it is impossible to understand English while reading long sentences.	
D2r[7]	I feel impatient because I cannot finish going homework and studying English.	

After the 2nd step of KJ analysis, the researcher categorized the groups made in the 2nd step of analysis into bigger groups than the previous steps. Then, headers were created for each bigger group. Consequently, six groups were organized (see Table 4).

The first group is mainly about identifying the differences between reality and ideal while studying, and the second group is about general ideas to deal with the difficulties regarding their study, goal, and achievement. The third category is changing actions as specific solutions to solve problems in terms of self-study, and the fourth category is also specific solutions but learners changed goals to achieve in their study. The fifth group and sixth group are related to outcomes, and the fifth group is a positive outcome, which is an enhancement of self-efficacy. On the other hand, the sixth group describes a negative outcome and includes low self-efficacy and motivation. Moreover, the cards which did not belong to any group in the 2nd step were also combined to the six groups.

Table 4

### *The 3rd Step of KJ Analysis: Group Naming*

Group	Card	Header
I (n+p+s)	A1c[1], A3[7], B2r[7], C1r[6], C2c[6], C2r[7], C2r[8], C3r[7], C4c[1], C7c[9], D1r[8], D1c[1], E4c[3] F1c[1], F1r[7], F1r[8], F2r[7], F3r[7],	Realizing the gap between reality and ideal
II (a+h+d+f+g+ i+j+l+t+v)	A2r[7], A3c[3], A3c[5], A6c[6], A7c[9], B1r[7], B1r[8], B2r[8], B3c[3], B5c[5], B5c[6], B6c[5], B7c[9], C2c[3], C6c[5], C7c[9] C7c[10], D1r[7], D2r[8], D3r[8], D7c[3], D7c[6], E1r[7] E1r[8], E2r[7], E7c[6], E3r[7], E3r[8], F2c[5], F3c[3], F4c[3], F5c[6], F4c[6], F6c[6], F6r[8], F7c[9],	Identifying the general solutions
III (e+k+m+w)	A1r[7], A2c[5], A7c[6], B3c[5], B4r[7], B6r[7], C1r[8], C6c[6], E3c[5], C4c[3] C4c[4], C6c[3], C6c[6], D3r[7] D6c[4], E5c[6], E6c[6], F2c[3], F5c[3], F5c[4], F6c[7],	Specific solutions: Changing action
IV (q)	B2c[3], B2c[4], B3c[4], B3c[6], C3r[7], E2c[4], F1r[7]	Specific solutions: Changing goals
V (c+o+u)	A2r[8], A5r[8], A6c[3], A7c[4], B5c[1], C2c[5], C3c[4], C6c[4], C7c[9], D1r[8], E4c[3], E4c[4], E6c[7], E6r[7], E7c[4], F6c[4],	Self-efficacy and motivation were enhanced
VI (b+r+B5c[5]+ D2r[7])	B2c[3], B3r[7], B3r[8], B5c[3], B5c[5], D2r[7], D4c[3], E2c[3], E3c[6]	Low self-efficacy and motivation

From the 3rd step of KJ analysis, the researcher focused on the process of self-regulated learning and participants' reflection based on time so as to investigate relationships among these six groups. As a result, the researcher found three different level of self-regulation that learners might go through in the process of self-regulated learning (see Figure 2). These levels of self-regulation are different from three phases, including Forethought Phase, Performance Phase, and Self-Reflection Phase. Learners go through all three phases and by repeating three phases, learners develop the level of self-regulation.

In the 1st level of self-regulated learning, learners started realizing the reality and gap. In fact, learners think “I want to have enough time to study (C2r[8]) and “I wish I had more time to study” ( F2r[7]). However, at the same time, learners feel “The situation that I have a plenty of time to study English never happens” (F3r[7]). In addition, their motivation is instrumental motivation even though they determined to study English hard at the beginning. For example, learners stated that I want to study English because I want to improve TOEIC score (D1c[1], F1c[1]) and I want to communicate with foreigners in English (A1c[1], C4c[1]). By repeating the cycle of self-regulation, learners gradually noticed they needed to think how to deal with the gaps between what they wanted to do and what they could do. It enabled learners to go up to the next level of self-regulation.

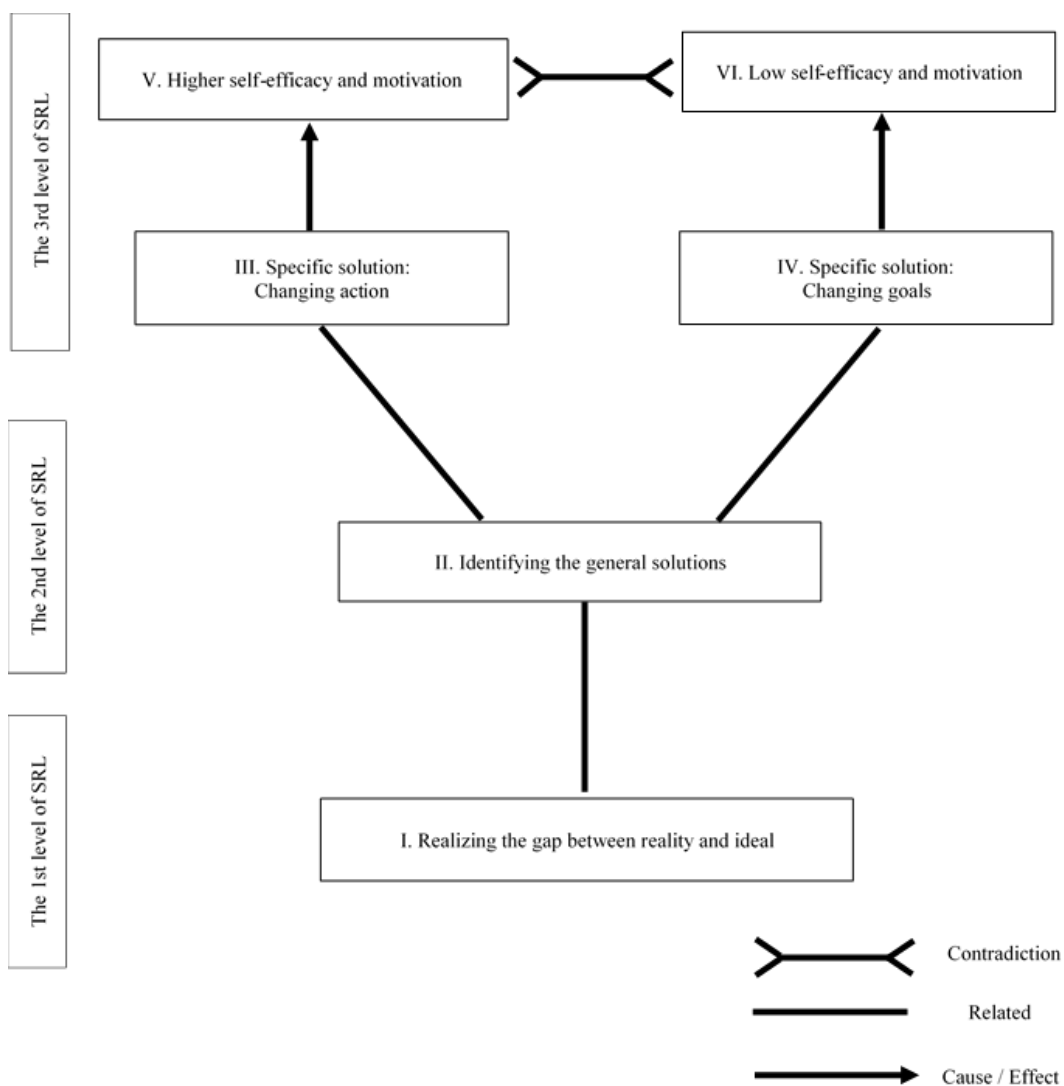


Figure 2. The 4th Step of KJ Analysis: Creating Diagram

On the 2nd level of self-regulated learning, learners tried to find how to solve the problems that they cannot study as they want to. At this point, learners not only identify difficulties that they face but also try to find the way to deal with the problems. For example, learners commented that the balance and time management are important (B2r [7], C1r[6], E2r[7]), both quality and quantity of study are crucial (B1r [7], B1r [8]), and how to concentrate on studying should be concerned (B3c[3], F4c[6]). However, these ideas are still vague and learners are not reaching to specific solutions to deal with the difficulties.

Regarding the level of motivation, learners feel difficulties to maintain their motivation towards study although they determined to study hard at the beginning of the study. Then, gradually they realized when they were demotivated while studying. For instance, learners expressed that “I feel demotivated while reading long sentences” (B5c[5]) and “Sometimes I want to avoid studying grammar, which is my weakness in English skills” (C6c[5]). Learners realized and started generating more specific actions through repeating the cycle of self-regulated learning, and eventually it led to the higher level of self-regulation.

In the 3rd phase of self-regulation, learners started seeking more specific solutions and there were two types of solutions. The first solution is to change actions to study. For instance, learners mentioned that “I was trying to study while I was on the bus or train” (F2c[3]) and “I was trying to do listening practice instead of listening to music in my free time (C6c[6]). Eventually, it influences learners’ self-efficacy and motivation positively and both self-efficacy. In fact, learners who changed their action commented “I am satisfied because I was able to accomplish all study goals I set last week(C6c[4]) and “I feel accomplished because I was able to study more than last week by using free time effectively” (D3r[7]).

The other solution is changing goals. Some students were setting lower goals or trying to do something easy to accomplish. For example, “Last week, I tried to study 5 vocabulary words per day, but I couldn’t. So I am going to study two words every day this week” (B3c[6]), “I want to use the app on my phone for reading practice because it’s easy to do and it doesn’t take a long time to study” (E2c[4]). As a result, it demotivated learners and their self-efficacy also went down. “Even though I reduced the amount of vocabulary to study, I couldn’t study” (B3r[7]). “I feel dissatisfied because I cannot improve the score as I expect” (E5c[5]).

Concerning learner motivation, the level of motivation also changes from the 2nd phase to the 3rd phase of self-regulated learning. In the 2nd phase of self-regulated learning, learners seemed to struggle to find the way to keep their motivation. However, on the upper level, learners identify the solution to maintain motivation, such as “In order to maintain motivation, I should have clear goals” (C7c[9]) and understanding purpose of study enables me to motivate myself(D1r[8], E4c[3]). Thus, learners on the 3rd level of SRL seems to have higher motivation since they were seeking what would be important to maintain their motivation while studying.

## VI. Discussion

At the beginning of this study, the five research questions related to self-regulated learning, motivation, self-efficacy, achievement and cognitive counseling were formulated. Each research



question will be discussed.

**Research Question #1: How do language learners go through the process of self-regulated learning?**

In this study, learners went through the three phases, including Forethought phase, Performance phase, and Self-reflection phase in self-regulated learning. In Forethought phase, participants set weekly goals and strategies to study English through counseling sessions, and they also wrote down their study schedule on the action plan sheet. The participants selected various contents to study English such as vocabulary, smartphone applications for listening and reading, quick writing, extensive reading, extensive listening, Net Academy, English grammar and paper-based TOEIC Mock test. Some students decided the daily routine work and others decided what they would do as the weekly study. By repeating the cycle of self-regulation, the participants set different plans and strategies depending on their weekly schedule.

In Performance phase, they were trying to study based on their action plan sheet. While studying, they were asked to monitor themselves and to keep a study record on the action logs. The participants noticed that their life schedule was busier than what they had expected because of assignments for other subjects while studying. Moreover, some students checked their weekly study plan every day to monitor themselves, but others did not check their plan. Through the cycle of self-regulated learning, the participants gradually realized that the weakness of their English study through monitoring their study and the necessity of changing study plan and strategy for the following week.

In Self-reflection phase, the participants attended the counseling sessions to reflect their study with the researcher and set the new goals for the following week. Students compared their action plan and action log and evaluated their study and plan. The participants realized that they set higher goals than what they were actually able to do in the first counseling session, and mainly they reflected their performance rather than their planning. Therefore, most of them continued to study based on the same study plan as the first week in the second study week.

In the cycle of self-regulated learning process, learners seemed to go through a different level of self-regulation. At the beginning of the study, learners set weekly goals in order to achieve the long-term goal and started studying based on their plans. However, the learners started realizing the differences between what they want to do and what they can do within the limited time. Gradually, the learners tried to find the solutions to fill the gaps between reality and ideal and started thinking about general ideas to solve the problems. Then, the learners started identifying more specific solutions to deal with the problems. Some of them were trying to change their action

such as managing time more efficiently or setting their study schedule as a routine work, and others adjusted their study goals by setting lower goals or shifting to something easy to do.

Thus, learners start studying at the lower level of self-regulation, and they just recognize the gap between reality and ideal. By repeating the cycle of self-regulated learning through counseling, they gradually start thinking how to deal with the gap and generating broad ideas. It enables learners to go up to the next level of self-regulation. Then, students start seeking more specific solutions to take actions so that they will be able to achieve the goals by keep repeating the cycle of self-regulated learning. Consequently, it let learners go up to the higher level of self-regulation in the process of self-regulated learning.

**Research Question #2: How can self-regulated learning influence learners in terms of motivation, achievement, and self-efficacy?**

From the quantitative data collection, all motivation, achievement, and self-efficacy seemed to be interrelated in self-regulated learning. When learners were motivated in the process of self-regulated learning, their TOEIC score was improved and self-efficacy was also enhanced. The results from MSLQ showed that learners' motivational belief including self-efficacy and intrinsic value was enhanced. However, the relationships between motivation, achievement, and self-efficacy were complex and it was difficult to identify how these three components were interrelated.

**Research Question #3: What difficulties do learners face in the process of self-regulated learning?**

As Yoshida et al. (2015) stated, learners face difficulties and stop the cycle of self-regulated learning in the performance phase. For instance, one of the participants in this research started setting higher goals than what the students would be able to do. While repeating the cycle of self-regulated learning, the student suddenly stopped studying because of time management even though the weekly plan was set. One of the reasons was that the student prioritized others such as club activities. The student gradually changed the study plan to manage the time for study and decreased the amount of study without changing the action. Eventually, the student was not able to study even though the student decreased the amount of study and stopped studying. Thus, the student tended to stop studying because of the difficulty of time management and to set lower goals to manage the time without changing action toward studying.

Another challenge that learners had in the present research was to understand themselves precisely. Learners started setting goals and strategies, but there were gaps between what they want to do and what they can do. Therefore, at the beginning of self-regulated learning, learners

seemed to set much higher goals than what they were able to do. Then, the learners were trying to find the ways to study by changing actions or adjust the amount of study by setting lower goals or easy goals in order to identify what would be the best strategy or amount of study. Learners had different schedules each week because of the study for other subjects, club activities and the amount of homework. Therefore, they were required to set goals by recognizing how much time they would have within a week and thinking to what extent they would be able to study every week. Thus, being realistic and setting feasible goals seemed to be challenging for learners.

### **Research Question #4: What are important for learners to be independent in the process of self-regulated learning?**

In this study, the participants were gradually able to be independent by repeating the cycle of self-regulated learning. As discussed above, learners were struggling with realizing the differences between the reality and ideal in this research. In order to understand where learners themselves are, they need to reflect both their action and goals to set goals precisely at first. Then, learners need to identify the gap between where they want to reach and where they are. Even if learners realize the gap but do not take actions, they will not be able to deal with the situation, and consequently, it will be impossible to be independent learners. Therefore, as the next step, they need to start thinking about how to fill the gap. In the present study, learners started finding general solutions to more specific solutions in order to deal with the situation, and specific solutions were necessary for them to take actions. In addition, when thinking about specific solutions, it was crucial for learners to change their action rather than study goals. As the results from counseling sessions showed, learners who change their action toward study were able to enhance motivation and self-efficacy compared to the learners who just changed their weekly goals for studying. Thus, learners can be independent learners through identifying the gap between the reality and ideal and find specific solutions which might be possible to do by changing action, not easy to do.

### **Research Question #5: What is the role of counseling in self-regulated learning?**

As Maftoon & Tasnimi (2014) introduced guidelines for enhancing self-regulated learning, learners need to know how to study based on the process of the self-regulated. In this study, counseling sessions were used to support participants' self-regulated learning. Counseling needs to provide different types of support depending on learners' needs and level of self-regulation. As discussed in the previous sections, there are different levels of self-regulation that learners go through. The pace of self-regulation varies depending on learners. For example, some students noticed the differences between reality and ideal, but it took time to start thinking solutions

because they were just describing the situation where they were. In this case, counselors need to encourage learners to consider how to change the situation and think about concrete solutions. One of the ways to encourage the students to consider their plans for changing the situation might be asking questions based on the counseling techniques suggested by Ichikawa (1990).

For instance, one participant was struggling with how to set goals for learning English vocabulary. The student decided to study 10 words per day until week 3, but the student was not able to reach the weekly goals. Then, the researcher asked how the student thought about the goal setting regarding vocabulary learning, and what would be necessary in order to achieve the weekly goal. By casting questions in the counseling session, the students realized that learning 10 words every day was too much, and eventually decided to change the number of vocabulary words, which was feasible.

Thus, Teachers can ask learners what actions might be useful to change their situation or what advice they would give if their friends had the same problems. By casting these questions, learners will gain opportunities to reflect their study.

In the case of other students, they were struggling with time management because it seemed to be difficult to identify how much time they would have to study precisely. The researcher asked several questions regarding how they usually managed their time. As a result, the researcher identified the problem that the learners did not understand their schedule precisely and found that they would need to create visuals in order to recognize their schedule. Therefore, they visualized their weekly schedule by creating a to-do list and their original time schedule even though the rest of students were able to organize their schedule in mind. Thus, counseling should provide the best advice by asking questions so that both teachers and students are able to identify the problems. Based on their findings, teachers need to provide support relevant to individual learners.

Moreover, learners expect what they are studying might influence achievement directly and learners have a desire to see their progress. Therefore, learners feel demotivated if they cannot improve skills or test scores right after studying. However, sometimes it takes more time to improve skills and test scores and until then, learners need to keep studying. In this study, learners tended to focus on their difficulties rather than achievement in counseling sessions. However, recognizing achievement is crucial to maintain learner motivation and enhance self-efficacy even if it is a small achievement. Raising awareness of their achievement and providing not only negative feedback but also positive feedback regarding learners' study is another important role of counseling.

In addition, it is crucial for teachers as counselors to support learners to become self-regulated, and teachers might be able to help learners be more independent by asking questions relevant to self-diagnosis and diagnostic questions suggested by Ishikawa (1990). Through counseling sessions in this study, self-diagnosis questions enabled learners to think and recognize the problems regarding their study, and diagnostic questions helped the researcher identify the issues of learners. Therefore, teachers can use these questions so that learners can be self-regulated.

## VII. Implications

### 1. Theoretical Implications

The original process of self-regulated learning suggested by Zimmerman & Moylan (2009) is a cyclical model and it is a flat cycle. In the present study, as Zimmerman and & Moylan suggested, learners start making plans for study in the forethought phase and based on the plans, learners study in the performance phase. Then, in the self-reflection phase, the learners evaluate both their strategy planning, goals and actions, and set new goals in the performance phase as the second cycle of self-regulated learning. However, learners are at a different point in the second cycle of self-regulated learning compared to the first cycle because learners have reflected on their study and goals, and adjusted their goals and strategy for the next cycle. Therefore, language learners might go through the process of self-regulated learning such as the spiral cycle described in Figure 3. Learners repeat the cycle of self-regulated learning, and in the process of the self-regulated learning, learners start setting goals and strategy, study based on the plan, and reflect their study. Based on the reflection, the learners set new goals and strategy in the following cycle of self-regulated learning. In other words, they stand a different point of Forethought Phase compared to the previous cycle because they start setting new goals and strategy based on the experience. Thus, learners are evolving by repeating the spiral cycle of self-regulated learning.

Furthermore, counseling played an important role of self-regulated learning in this study. Counseling sessions supported learners to find the best ways to be independent learners, and various supports and advice were necessary depending on learners' level. The advice provided in the counseling sessions also varied depending on the progress of individual learners and learners' needs. Therefore, counseling was also gradually developing. In other words, counseling should also evolve as learners do.

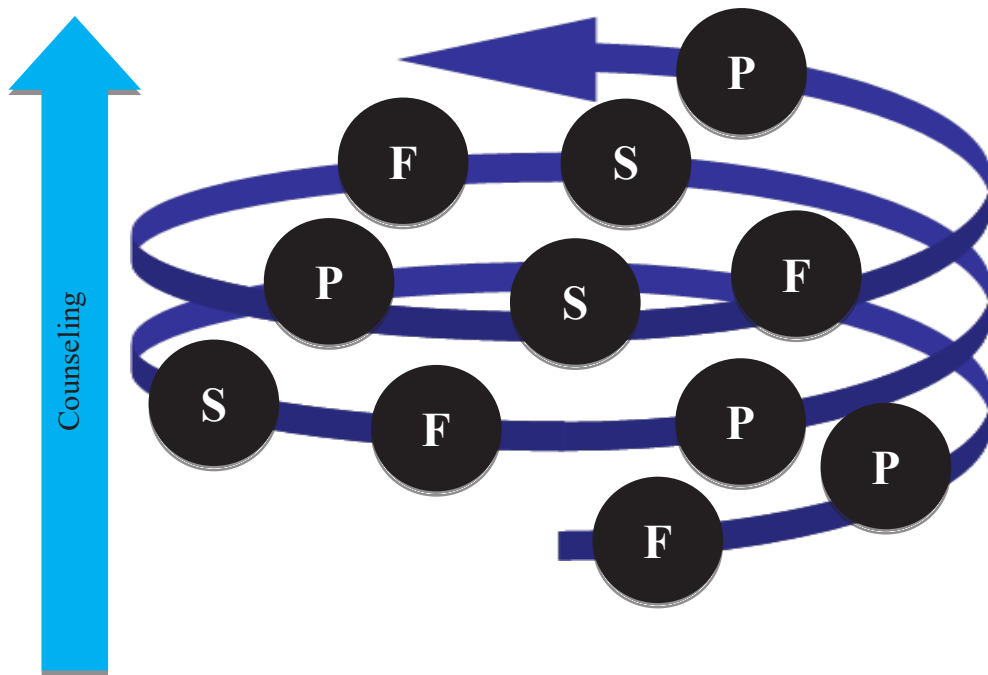


Figure 3. Spiral Process of Self-regulated Learning

Note: F=The Forethought Phase; P=The Performance Phase; S=Self-reflection Phase

Moreover, different levels of self-regulation might exist from findings in this study (see Figure 4). As Figure 4 shows, learners went through different levels in the process of self-regulation. First, learners started realizing the gap between reality and ideal in the process of self-regulation in this study. For instance, the students set higher goals than what they were actually able to handle. In order to fill the gap, the learners tried to identify the general ideas to solve their problems regarding their study such as the importance of time management and the priority of their study and other activities. Then, the learners started generating more specific solutions to deal with problems such as changing action and changing goals. Thus, the learners went through different levels of self-regulation, but the pace of self-regulation differed depending on learners. In fact, some students noticed that there were gaps between what they wanted to do and what they were able to do by repeating the cycle of self-regulated learning, but they were not thinking how to fill in the gaps. Consequently, they were on the 1st level of self-regulation for a while. Other students, on the other hand, realized that the gaps between reality and ideal, and after realizing the gaps, they moved to the next level of self-regulation and started generating ideas to deal with the difficulties about their study. Thus, through the cycle of self-regulated learning, language learners develop their learning and their progress might vary due to individual differences.

### The 3rd level of SRL

Specific solutions

### The 2nd level of SRL

Identifying general solutions

### The 1st level of SRL

Realizing the gap

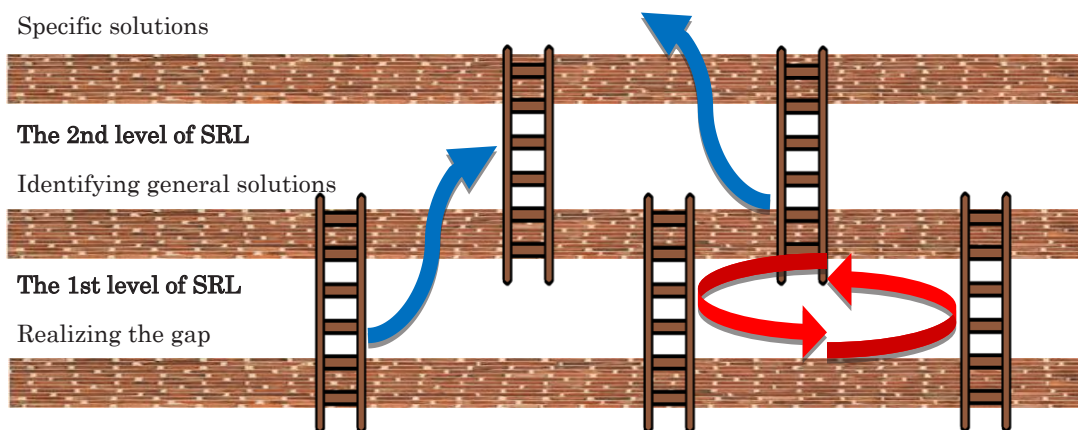


Figure 4. Individual Differences Regarding Level of Self-regulated Learning

In addition, learners do not always keep developing in the process of self-regulated learning. For instance, some learners in this study identified specific solutions to solve the gap between reality and ideal, but their solutions were changing goals and setting lower goals and eventually, their motivation and their self-efficacy were getting lower, and they had to rethink the strategies to overcome difficulties regarding their study. In this case, their self-regulation went down to the lower level and they had to generate another idea to solve the problems.

Furthermore, if learners face difficulties to find the best methods to study for a while, they might stay at the same level of self-regulation. If learners feel demotivated or do not have confidence while studying, learners might go down to the lower level of self-regulation due to the lower motivation or self-efficacy. Thus, learners might experience different levels of self-regulation depending on various factors.

## 2. Pedagogical Implications

At the beginning of self-regulated learning, student themselves do not know the gap between what they expect to do and what they are actually able to do. Therefore, teachers to raise learners' awareness of themselves and to support learners so that students can be more realistic. In this study, the researcher used counseling sessions in order to raise their awareness and asked each participant to write their action plan and to keep a record of their study on action logs. Then, the participants were asked to reflect their action plan and action logs. However, conducting these counseling sessions for all students might not be possible for teachers in a classroom.

One of the possible methods to have learners be realistic could be using journals and reflection sheets. By using these methods, learners can reflect what they planned and what they actually did. The important point in the process of using journals and reflection sheets is that learners need to compare their plan and actual study. Teachers need to encourage learners to review their study plan and action, to realize the gap between reality and ideal, and to think about the solutions so as to deal with the gap.

In addition, counseling techniques might be combined into reflection sheets. In this study, various techniques such as self-diagnosis questions, diagnostic questions, and virtual teaching were used. In the same way, these techniques can be applied to several ways in classroom teaching. For instance, teachers can use reflection sheet and include self-diagnosis questions and diagnostic questions in the reflection sheet. By providing the reflection sheet, learners can review their comprehension about their study in class and difficulties that they face.

Another example is to do peer counseling in class. As the researcher did in this study, teachers can let learners ask questions based on the counseling techniques to other classmates. Teachers can provide possible questions as a list and by using the list, learners can conduct peer counseling session in the classroom. Consequently, learners can help each other so as to find the problems regarding their study and to encourage others to study. Thus, teachers can provide opportunities for learners to reflect their learning by applying the counseling techniques into the classroom.

Moreover, teachers need to encourage learners to maintain their motivation and self-efficacy in the process of self-regulated learning. In order to enhance learner motivation and self-efficacy, learners need opportunities to know their achievement with reference to their study. For example, the researcher showed the graph which includes the progress of students' self-efficacy, TOEIC score, and motivation during this study. By showing the graph, the participants visually recognized how much they were progressing. It led to learners' higher motivation and self-efficacy. In the same way, teachers can provide opportunities for learners to reflect their achievement by asking them to write their achievement regarding study based on the reflection sheet and by asking them to provide peer feedback on the classroom activities. Positive feedback from themselves and others could enhance learners' motivation and self-efficacy.

Furthermore, as some participants mentioned in this study, understanding of the purpose of study might be crucial to maintain motivation. Learners are motivated at the beginning of the study, but gradually their motivational level changes while studying. Learners might feel for what purpose they are studying English or doing this activity. Therefore, teachers also need to help



learners understand the purpose of study in the classroom. For example, when teachers introduce activities in the classroom, they need to let learners know why they are doing these activities.

Also, when learners set study goals, they usually set goals for improving the TOEIC score. In fact, in this study, learner motivation was instrumental motivation. Transforming instrumental motivation to integrative motivation, and qualitative change did not take place because the study was conducted within a short period. Teachers might need to keep encouraging students so that learners gain integrative motivation. For instance, they should think why they want to improve the TOEIC score, and for what purpose they are studying English. One of the ways to encourage learners to have integrative motivation might be to set long-term goals. Teachers need to let learners set long term goals so that learners can motivate themselves at a deeper level as integrative motivation and maintain their motivation.

Yoshida et al. (2015) investigated that learners faced difficulties in the Performance Phase. In this study, one student stopped studying. In order to avoid this situation in the classroom, teachers need to monitor learners' performance in the process of self-regulated learning, and if learners start setting lower goals and still they do not seem to achieve the goals, teachers need to identify what problem learners face beside goal setting.

Individuals are different, and it might be challenging for teachers to know what kind of individual differences exist in the process of self-regulated learning since even learners do not know about themselves. However, by monitoring students in the process of self-regulated learning, teachers can understand learners' characters and tendency regarding learning.

It might be useful to provide the best suggestion so that learners can reflect their learning, and teachers can also raise awareness that learners do not realize. Consequently, it helps learners improve their learning and supports them to be independent learners.

## VIII. Conclusion

This study examined how self-regulated learning would influence learners. As a result, self-regulated learning enhanced self-efficacy, learner motivation, and achievement. Especially, motivation seemed to be a crucial factor to be more confident and succeed in language acquisition. From the counseling sessions in the study, learners seemed to have difficulties to be more realistic in the process of self-regulated learning. In addition, learners seemed to go through a different level of self-regulation in the process. Learners started realizing the gap between what they wanted to and what they could do at the beginning, and gradually they identified from general to particular solutions. In terms of the specific solutions, some learners tried to change their

behavior and action without changing goals, and others just changed their goals to accomplish. Eventually, learners had different outcomes depending on the specific solutions. The learners who changed their action resulted in enhancement of motivation and self-efficacy. On the other hand, the learners who changed the goals demotivated themselves and their self-efficacy also went down. Another finding from the study was the learners go through the process of self-regulated learning at various pace. Therefore, different types of support were necessary for learners so as to study independently in the framework of self-regulated learning.

In order to support learners' self-regulated learning in the classroom, various methods can be used. For instance, teachers can use reflection papers and reflective journals. These tools enable learners to reflect their study and recognize what they have achieved and what they need to do. Learners can maintain their motivation toward studying and also enhance their self-efficacy by recognizing their achievement through reflections.

Thus, learners need support from teachers to acquire self-regulated learning, and teachers should use various ways to encourage learners so as to be independent learners by adopting the counseling techniques into the real classroom.

## Reference

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press.
- Goda, Y., Yamada, M., Matsuda, T., Kato, H., Saito, Y., & Miyagawa, H. (2014). Plan and reflection of self-regulated learning: Perspectives of outside classroom learning hours and English proficiency. *Nihon Kyōiku kougakkai Ronbunshi*, 38(3), 269-286.
- Ichikawa, S. (1993). *Gakushū wo sasaeru ninchi kaunseringu : Shinrigaku to kyōiku no aratana setten* [Cognitive counselling supporting study: A new connection between psychology and education]. Tokyo: Brain Publisher.
- Ito, T. (1996). Gakugyō tassei bamen ni okeru jiko kouryōkukann genninnizoku gakushū houryaku no kankei [Relationships of self-efficacy, cause attribution, learning strategy in academic achievement scenes]. *Kyōiku shinrigaku kenkyū*, 44(3), 340-349.
- Kawakita, J. (1970) *Zoku Hassō hō: KJ-hō no tenkai to ōyō* [Thinking 2: Development and application of KJ method]. Tokyo: Chuo Koronsha
- Kirk, S. (2010) Self-determination theory and education: An overview. *Institute for Language and Culture*, 14, 35-38
- Maftoon, P., & Tasnimi, M. (2014). Using self-regulation to enhance EFL learners' reading comprehension. *Journal of Language Teaching and Research*, 5(4), 844-855.
- Mahmoodi, M. H., Kalantari, B., & Ghaslani, R. (2014). Self-regulated learning (SRL), motivation and language achievement of Iranian EFL learners. *Procedia - Social and Behavioral Sciences*, 98, 1062–1068.
- Ogawauchi, T. (2014). The effect of motivation for learning and learning strategies on academic procrastination behavior in high school students. *Kyōiku Jissengaku Ronshū*, 15, 113-120.
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82(1), 33.
- Schunk, D. H. (2008). Social cognitive theory and self-regulated learning. In D.H. Schunk & B.J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and applications*. (pp.125-151). New York: Lawrence Erlbaum Associates.
- Suzuki, T. (2008). A study on possible English learning motivational scale variation over time and its correlation to English proficiency among different grade levels. *Bulletin of Asahikawa National College of Technology*. 21-32.

- Tanaka, H. (2012). KJ hou nyu mon: Hassou ya kasetu wo eruniha[Introduction of KJ Method: In order to get ideas and hypotheses]. In O. Takeuchi & A. Mizumoto (Authors), *Gaikokugo kyoiku kenkyu handobukku: Kenkyu shuho no yori yoi rikai no tameni* (pp. 258-283). Tokyo: Shohakusha.
- Torrano, F., & Torres, M. C. (2004). Self-regulated learning: Current and future directions. *Electronic Journal of Research in Educational Psychology*, 2(1), 1-34.
- Zimmerman, B. J., Bonner, S., & Kovach, R. (1996). *Developing self-regulated learners: Beyond achievement to self-efficacy*. Washington, DC: American Psychological Association.
- Zimmerman, B. J., & Moylan, A. R. (2009). Self-regulation: Where metacognition and motivation intersect. In D. J. Hacker, J. Dunlosky, & A. C. Graesser (Eds.), *Handbook of metacognition in education* (pp. 299-315). New York: Routledge.