

## **EFL Learners' Use of Self-Regulated Learning Strategies and Its Relationship with Grammar Achievement\***

**Woo-hyun Jung**  
(Yeungnam University)

**Jung, Woo-hyun. (2025). EFL learners' use of self-regulated learning strategies and its relationship with grammar achievement. *English Language & Literature Teaching*, 31(2), 21-47.**

This study aims to explore the impact of individual variables (learners' level of grammar knowledge, gender, and study time) on the use of self-regulated learning strategies in grammar learning and the relationship between self-regulated learning strategy use and grammar achievement. To this end, 131 EFL students completed a questionnaire and grammar achievement tests. Results showed that those students with more grammar knowledge made greater use of six types of strategies (meta-cognitive, cognitive, meta-affective, affective, meta-sociocultural-interactive, and sociocultural-interactive strategies) than those with less grammar knowledge. Exactly the same was true for learners' time commitment to English study since the analysis revealed higher levels of strategy use by students who devoted more time studying English than by those who devoted less time. In regard to gender effects, female students had a greater sensitivity to five types of strategies except meta-affective strategies than their male counterparts. Worthy of particular note were the findings that key SRL strategies were positively correlated with their corresponding metastrategies and that the learners' self-regulatory efforts were positively correlated with their grammar learning outcomes. On the basis of the results, the study provides helpful suggestions for the enhancement of the learners' self-regulatory capacities in grammar learning.

**[self-regulation/learning strategies/grammar knowledge/achievement]**

### **I. INTRODUCTION**

Over the past few decades, language learning strategies have been a major issue of

---

\* This research was supported by the Yeungnam University research grants in 2025.

considerable research, proving a gold mine to which many researchers have rushed (Ellis, 2004). Recently, however, many researchers (Dörnyei, 2005; Tseng et al., 2006) have emphasized a need for a paradigm shift from the conventional notion of language learning strategies (Oxford, 1990) to the new notion of self-regulated learning (SRL) since the former notion is too general, undefined, and incoherent, and the questionnaires designed to measure language learning strategies are inaccurate and unreliable (Rose, 2012). SRL, originally rooted in educational psychology, refers to a dynamic, constructive process whereby learners set goals and then monitor, regulate, and control their cognition, motivation, and behavior (Pintrich, 2000; Zimmerman & Schunk, 2011). As noted by many researchers (e.g., Dörnyei, 2005), it provides a more extensive perspective on student learning than the conventional notion of language learning strategies by covering not only cognitive and affective factors but also motivational, social, and environmental factors.

In second language (L2) research, SRL was re-conceptualized as deliberate, goal-directed attempts to manage and control efforts to learn the L2 (Oxford, 2011). According to Oxford (2011), SRL strategies have many important features: (a) They are employed consciously; (b) They make learning easier, faster, more enjoyable, and more effective; (c) They are manifested through specific tactics in different contexts and for different purposes; (d) They reflect the whole, multidimensional learner, not just the learner's cognitive or metacognitive aspects.

Great emphasis has been laid on SRL behaviors and skills not only in educational psychology but also in L2 pedagogy. For example, educational psychologists such as Bussey (2011) and Zimmerman and Schunk (2011) argued that central to academic achievement and proficiency is the capacity for self-regulation, as learners who acquire this skill can set learning goals, implement effective learning strategies, and maintain their motivation, all of which contribute to ensuring successful academic performance. By the same token, L2 researchers (Dörnyei, 2005; Dörnyei & Ryan, 2015; Oxford, 2011; Tseng et al., 2006) generally agreed that learners' self-regulatory capacity plays a critical role in improving language performance as well as enhancing motivation.

Notwithstanding the crucial strategic significance of self-regulation, there are some weaknesses in the previous SRL strategy research. First, while research on SRL strategies has been carried out with scrupulous attention to detail in the area of general learning or educational psychology, relatively few studies have documented how and how much learners engage in SRL in the field of foreign language teaching (Wang & Bai, 2017; Zeng & Goh, 2018), especially in the Korean EFL (English as a Foreign Language) context. Even fewer still have delved into SRL strategy use in grammar learning, though it has attracted growing interest in recent years in different facets of language skills such as listening (Zeng & Goh, 2018), writing (Bai & Wang, 2021; Cho, 2022); and vocabulary (Tseng et al., 2006). Second, L2 research has not fully probed the influence of individual learner variables in the choice

of SRL strategies. Specifically, the number of studies investigating the relationship between SRL and L2 proficiency is still insufficient (Fukuda, 2018), and so is research on gender differences in the use of SRL strategies (Studenska, 2011). On top of all that, the empirical studies conducted along these lines have produced inconsistent results, as claimed by Tseng et al. (2017). Methodologically, extant literature has used different types of questionnaires, seeing that some researchers employed SRL questionnaires designed in educational psychology (Pintrich & De Groot, 1990; Zimmerman & Martinez-Pons, 1990) to conduct L2 research, but others have designed and employed SRL questionnaires specific to L2 research (Tseng et al., 2006; Wang & Bai, 2017). It is in no way relevant to adopt the psychology-based research tools for L2 research, primarily because the former tools were designed for a wide range of subjects and thus do not fully reflect the complex nature of the foreign language learning process. Furthermore, the use of different research tools for the same research purpose makes it hard to compare research findings.

In order to fill these research voids, the current study deals with the use of SRL strategies in grammar learning. The purpose of the study is two-fold: (1) to investigate to what extent self-reported use of SRL strategies varies according to individual learner variables such as learners' level of grammar knowledge, gender, and time commitment to English study; (2) to ascertain whether SRL strategy use is related to grammar learning outcomes. To fulfill these purposes, the current research addresses the following specific research questions:

1. Are there any differences between high- and low-level students in the use of six types of SRL strategies (metacognitive, cognitive, meta-affective, affective, meta-sociocultural-interactive (meta-SI), sociocultural-interactive (SI) strategies)?
2. Are there any differences between males and females in the use of six types of SRL strategies?
3. Are there any differences between students with more time commitment to English study and those with less time commitment to English study in the use of six types of SRL strategies?
4. Is there any relationship between SRL strategy use and grammar course grades?

In the first research question, the high- and low-level division was indicative of learners' level of grammar knowledge. The second one revolved around the effects of gender, and the third one, around the influence of the learners' study time on the use of SRL strategies. Unlike the first and second variables, the study time variable has received scant attention in strategy research. The main motive behind the inclusion of this variable was that time management was also part of self-regulation. The last research question about a potential relationship of SRL strategy use with grammar test scores was inspired by the widely reported claim that SRL is seen as a mechanism to help explain achievement differences

among students and as a means to improve achievement (Schunk, 2005).

## II. LITERATURE REVIEW

Since there have been a myriad of studies on SRL strategies, this section focused on SRL models, the impact of three individual variables (proficiency, gender, and study time) on the use of SRL strategies, and the relationship between SRL strategy use and achievement, which suited the purpose of the present study.

### 1. Models of SRL

Many models of SRL have been put forth from various angles to account for the components of self-regulation. In the area of educational psychology, Zimmerman's (2000) recent model was organized into three cyclical phases: forethought (task analysis, self-motivation beliefs), performance (self-control, self-observation), and self-reflection (self-judgment, self-reaction). In the same academic field, Pintrich (2000) proposed a more elaborate model comprising four phases (forethought, monitoring, control, and reaction/reflection) and for each phase, four areas for self-regulation (cognition, motivation/affect, behavior, and context). This model subdivided Zimmerman's (2000) performance phase into monitoring and control phases and subsumed his six dimensions of self-regulation in the four areas. Pintrich's (2000) model had a unique feature in that it placed special emphasis on motivational processes. Specifically, motivation interacted with other areas such as cognitive, behavioral and contextual factors for self-regulation. With particular attention to this feature, he developed Motivational Strategies Learning Questionnaire, which acted as a useful research tool to understand the mechanism of self-regulation.

On the basis of SRL models proposed by educational psychologists, L2 researchers have re-developed SRL models considering the specificity of L2 learning environments. Teng and Zhang (2016) put forward a multi-dimensional model of self-regulated writing strategies, which covered four dimensions: cognition, metacognition, social behavior, and motivational regulation. Going one step further, Wang and Bai (2017) proposed a more elaborate and complex framework of SRL, which encompassed 11 categories such as goal-setting, making adjustments, self-evaluation, and seeking social assistance, to name only a few.

Particularly noticeable SRL framework was Oxford's (2011) strategic self-regulation (S<sup>2</sup>R) model. This model was made up of three key dimensions of L2 learning: cognitive, affective, and SI strategies. One unique characteristic of this model was its inclusion of three metastrategies such as metacognitive, meta-affective, and meta-SI strategies, which serve to guide each of the key dimensions (Oxford, 2011).

While these different models of self-regulation had their own defining characteristics, they had something in common in that they paid due attention to such factors as planning, goal-setting, monitoring, control, and reflections. There is general consensus across these different models that strategically self-regulated learners actively participate in their own learning and achieve learning goals by controlling various aspects of their learning (Oxford, 2011). The different SRL models have served as a foundation platform for promoting a plethora of studies in this area, as presented below.

## 2. SRL Strategy Use by Proficiency

Proficiency has drawn much attention in SRL strategy research. Zimmerman and Martinez-Pons (1990) delved into the relationship between the two and showed a positive effect of proficiency on the use of SRL strategies, indicating that gifted students displayed significantly higher strategy use than regular students. This study was, however, conducted in educational psychology.

A positive relationship between SRL strategy use and learners' proficiency was also reported in L2 research. For example, Wang and Pape (2005) found that proficient ESL students employ more SRL strategies than less proficient students. The same was true in Japanese EFL contexts, as shown in Saito's (2020) study, which indicated that higher proficiency linked to more frequent use of some compensatory and metacognitive SRL strategies than lower proficiency, and that the high-level group used some affective strategies more often than either the moderate or low groups. In Hungarian EFL classrooms, Habók, Magyar and Molnár (2022) investigated the choice of SRL strategies using Oxford's (2011) S<sup>2</sup>R research framework and produced very similar results to the aforementioned studies in that significant differences were found in the frequency of SRL strategy use between more and less proficient learners, with the former group deploying SRL strategies with greater frequency than the latter.

In Korean EFL settings, Cho and her colleagues initiated research into SRL strategy use and proficiency in high school and college classrooms. At the high school level, Cho and Kim (2019) revealed that successful learners employed more self-regulatory skills than less successful ones. In the same educational settings, Cho's (2022) research centered on the use of self-regulated writing strategies and showed that the writers in the high-level group used text processing and goal-oriented monitoring and evaluating more often than those in the intermediate- and low-level groups. At the college level, Cho and Ma (2018, 2021) yielded similar findings, indicating that higher proficiency learners reported using rehearsal, elaboration, critical thinking, and peer evaluation strategies more frequently than lower proficiency ones.

However, not all studies reported the same findings. Jeon (2011) showed that there was

no statistically significant difference in the use of the components of self-regulated learning ability between lower- and upper-level proficiency groups. The overall results of the prior studies tend to show, though not conclusive, that the high proficiency students have a far greater capacity for self-regulation than their low proficiency counterparts.

### 3. SRL Strategy Use by Gender

Gender differences have long been a topic of research interest (Tseng et al., 2017). In educational psychology, Zimmerman and Martinez-Pons (1990) reported greater use of SRL strategies by girls than by boys, with more attention to goal-setting, planning, record-keeping, and self-monitoring.

Gender effects were also found in foreign language learning. In Chinese EFL classrooms, Teng and Huang (2019) showed that female students reported more use of most of the SRL strategies except emotional control strategies, compared to male students. Similar but somewhat different results were reported by Tseng et al. (2017) in Taiwanese EFL settings where females have better control in strategy use than males, especially in emotion, awareness, and boredom control.

The superiority of females over males was also evident in Korean EFL university classrooms. Wang et al. (2013) found that female students reported much higher levels of SRL strategy use than their male counterparts. Along the same lines, Lee (2008) revealed that girls surpassed boys in the use of overall SRL strategies and of the two subcategories: cognitive strategy and self-efficacy. A more comprehensive analysis of gender effects on SRL strategy use was carried out by Chin (2021), who demonstrated that female students had a higher sensitivity to self-regulation than their male counterparts.

While females' greater capacity for self-regulation stands true in many studies, it is not always the case. Hong et al. (2016) indicated from a comparison between Korean and Chinese EFL learners that males scored better in SRL than females in China, but just the opposite was true in Korea. Other studies such as Studenska (2011) showed from an analysis of self-regulation difficulty that female and male learners did not differ in terms of difficulty in metacognitive strategies like choosing goals, ways and conditions for learning, though the former group had less difficulty in planning, organizing and implementing learning as well as reflecting and making changes. The literature discussed in this section clearly indicates that the results on gender effects on the use of SRL strategies are by no means definitive and thus call for further research.

### 4. SRL Strategy Use by Study Time

Very little is known about the role of study time in the use of SRL strategies, with only

one study addressing this issue in the EFL context. Teng and Huang (2019) reported that students who devoted more time to English writing reported greater use of various self-regulated writing strategies than those who devoted less time to English writing. This suggests that there is a need for further investigation into this research theme.

## 5. SRL Strategy Use and Achievement

More attention has been devoted to the relationship between SRL strategy use and achievement. In educational psychology, Pintrich and De Groot (1990) found that self-regulation was the best predictor of academic performance, indicating that students who were achieving high grades were more likely to report using self-regulatory strategies than were low-achieving students. This finding was evidenced by another analysis of SRL strategy use in Seker's (2016) research in EFL contexts, which showed that SRL strategy use had significant correlations with language achievement.

A great majority of studies on the relationship between SRL strategy use and achievement have been carried out in China and Hong Kong. In Chinese EFL contexts, Chen et al. (2020) reported that the higher achievers employed a wider variety of SRL strategies than their lower counterparts. In particular, the former group had a higher level of metacognitive awareness than the latter. Some Chinese researchers zoomed in on self-regulation in a particular language skill. With respect to listening strategies, Zeng and Goh (2018) yielded mixed findings, revealing that high-achieving students employed cognitive and metacognitive SRL strategies at a higher rate than low-achieving students, but the strategy occurrence of mental translation for the former group was even lower than that for the latter. Far greater attention was directed to writing strategies. Teng and Huang (2019) probed self-regulated writing strategies and revealed that the nine types of SRL strategies as a whole were a strong predictor of secondary school students' writing outcomes, with the former significantly influencing the latter. Self-regulated writing strategy use was also a primary research theme in Bai and Wang's (2021) study in Hong Kong ESL classrooms. Although their research was carried out in a different environment from the one in which Teng and Huang's (2019) research was conducted, the results of the two studies were virtually the same, showing that self-regulated writing strategy use was positively related to the students' writing competence.

This line of research has yielded various results in Korean EFL contexts. Some studies provided evidence for the close relationship between SRL strategy use and achievement. For example, Lee (2008) examined SRL strategy use among students of three different achievement levels and revealed that the high-achieving students reported greater use of SRL strategies than the mid-achieving students, who in turn reported greater use than the low-achieving students. In a similar line of work, Jeon (2011) further found that among the

components of SRL, motivation and metacognitive and cognitive strategies were significant predictors in explaining the participants' English performance. Very recently, Lee and Ko (2023) presented additional evidence that self-regulation including cognitive, metacognitive, and resource management strategies emerged as the most influential factor positively affecting speaking performance in both metaverse and face-to-face environments.

However, the use of SRL strategies was not always related to achievement. Chin (2021) explored how college students' self-efficacy and their use of SRL strategies influence their academic achievement and showed that frequent use of particular strategies did not correlate with English language test scores. As shown above, many of the prior studies demonstrated that self-regulation is a significant impetus for learners' academic achievement (Zimmerman & Schunk, 2011), but a few others found evidence to the contrary.

In a nutshell, many of the studies discussed hitherto have provided evidence in favor of the claim that individual learner variables such as proficiency and gender play a vital role in the use of SRL strategies in one way or another. However, the entirety of the evidence for the impact of these individual variables on self-regulation is not as yet conclusive. This warrants further exploration.

### III. METHOD

#### 1. Participants

Participants in this study totaled 131 EFL university students, covering not only Korean students (115; 87.8%) but also international students (16; 12.2%) who were studying English in Korea. The international students comprised eight Uzbek, five Vietnamese, two Chinese, and one Kazakhstan. All the participants were enrolled in a course entitled "Practical English Grammar," a 15-week course which dealt with a wide variety of grammatical structures ranging from tenses and passives to relative clauses. Detailed information of the participants is summarized in Table 1

One potential variable affecting SRL strategy use under consideration was the learners' level of grammar knowledge mainly because this study scrutinized their use of SRL strategies in the grammar course. Hence, the sample was placed into two groups of students based on their diagnostic grammar test scores: high-level and low-level groups. This test was implemented at the beginning of a semester not only to identify their strengths and weaknesses in the area of grammar but also to determine their existing level of grammar knowledge. The test items were selected from grammar questions presented in the "Study Guide" section of a well-known grammar reference book entitled "Grammar in Use" written by Murphy et al. (2018).

**TABLE 1**  
**Distribution of the Participants**

Variable		High group		Low group		Total	
		<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Major	English major	65	95.6	53	84.1	118	90.1
	Double major	3	4.4	10	15.9	13	9.9
Gender	Male	11	16.2	31	49.2	42	32.1
	Female	57	83.8	32	50.8	89	67.9
Academic year	Sophomore	42	61.8	35	35.6	77	58.8
	Junior	12	17.6	17	27.0	29	22.1
	Senior	14	20.6	11	17.5	25	19.1
Study hours	More hours	46	67.6	26	41.3	72	55.0
	Fewer hours	22	32.4	37	58.7	59	45.0
Stay abroad	Yes	9	13.2	3	4.8	12	9.2
	No	59	86.8	60	95.2	119	90.8
Mean of stay	M/SD	8.89	6.29	3.00	2.65	7.42	6.10
Total		68	51.9	63	48.1	131	100

The test was composed of 50 multiple-choice questions, which covered a wide array of grammatical items ranging from tenses and relative clauses to adjectives and adverbs, as shown in the sample of the diagnostic test items in Appendix A. The participants were asked to choose the correct answer to each grammar question from a set of alternatives. The test takers were given 30 minutes to complete the test. Upon completion of the test, it was scored by assigning 2 points to each correct answer. This indicates that the full score on the test was 100 points by multiplying a total of 50 test items by 2 points. The two groups of students were divided using a common form of dichotomization, a median split of the test scores, following many researchers' (Allen & Mills, 2014; Hirt et al., 2021; Kepner, 1991) guidelines on the division of participants into two different proficiency groups. Since the median of the test scores was 64 out of 100 points, those with a test score of 64 or higher were put into the high-level group (68; 51.9%), and those with a score lower than the median into the low-level group (63; 48.1%).

Of the total number of participants, a great majority of them (118; 90.1%) were majoring in English, whereas about a dozen (13; 9.9%) were double majoring in English and another academic field such as sociology, Korean language & literature, or computer science. The distribution of the participants by gender showed that females (89; 67.9%) outnumbered males (42; 32.1%). The greatest number of participants was sophomores (77; 58.8%), who were followed by juniors (29; 22.1%), who were in turn followed by senior students (25; 19.1%). However, freshman students were not included in the study, largely because the grammar course was offered to sophomores or upper-level students.

The learners' time commitment to English study per week was another vital consideration in the present research. Thus, they were divided into two different groups according to the amount of their English study hours per week: the students with more time commitment to English study and those with less time commitment. Here again, this division was based upon the median split method. Now that the median was 4 hours per week, those students who spent more time than the median were classified as a student group with more time commitment to English study, whereas those who spent less time than the median, as a student group with less time commitment. As can be seen in the above table, the high-level group spent an average of 6.15 hours, and the low-level group, an average of 3.60 hours studying English per week.

In regard to the participants' experience in staying in any English-speaking communities, only a dozen of them (12; 9.2%) had such an experience. Their average length of stay was 7.42 months, with the high-level group for an average of 8.89 months and the low-level group for an average of 3 months.

## 2. Research Instruments

### 1) The SRL Questionnaire

The first source of data collection was a self-report SRL questionnaire. The questionnaire employed in this study was a modified version of Oxford's (2011) S<sup>2</sup>R model, which appears in Appendix B. It consisted of a total of 34 items, which were grouped under six categories. These categories, together with their Cronbach's alpha values, are detailed in Table 2.

**TABLE 2**  
**The Components of the Questionnaire**

Strategy type	Definition	Items	Cronbach's $\alpha$
Metacognitive	Guiding cognitive strategies	6	0.914
Cognitive	Constructing and applying knowledge	6	0.901
Meta-affective	Guiding affective strategies	5	0.865
Affective	Creating positive emotions and motivation	6	0.904
Meta-SI	Guiding SI strategies	6	0.890
SI	Interacting to learn	5	0.898

The questionnaire comprised six categories: three key strategy types such as cognitive (6 items), affective (6 items), and SI (5 items), coupled with their corresponding metastrategies such as metacognitive (6 items), meta-affective (5 items), and meta-SI (6 items).

This study employed a Korean version of the questionnaire for the Korean students to avoid potential confusion which could be generated by the use of the English version. Going

one step further, Oxford's (2011) original items were specially tailored to Korean EFL classroom situations, especially grammar classroom situations for the purpose of the study, following Griffiths and Oxford's (2014) suggestion that the pre-existing questionnaire should be modified to fit their situational factors. However, the international students were allowed to choose either the original English version or the Korean version.

A pilot study was undertaken with a group of three Korean students (one male and two females) to assess the feasibility of the questionnaire. These students' comments helped to spot unclear or ambiguous statements in the questionnaire and revise them as naturally as possible prior to a full-scale survey.

Cronbach's alpha coefficients were calculated to measure the internal consistency of a set of questionnaire items. The alpha values shown in Table 2 above ranged from .86 to .91, which turned out to be robust internal consistency. This in turn suggests that a set of items in each category are closely related as a group.

## 2) The Grammar Achievement Tests

The second source of data collection was grammar achievement tests. These tests were administered after the students received explicit grammar instruction. In this approach, they were presented with grammatical rules with relevant examples and given explanations about their usage. They then practiced exercises based on grammatical rules to test their understanding, which ultimately helped to reinforce their grammar learning.

The participants' grammar achievement was gauged by four types of grammar achievement tests totaling 90 points: 5 for the mid-term quiz, 40 for the mid-term exam, 5 for the final-term quiz, and 40 for the final-term exam, but attendance marks (10 points) were not included in the grammar achievement test scores. As was done by Seker (2016), quizzes and exams included grammar questions to measure the learning outcomes after a period of instruction in the grammar course.

The questions in the quizzes and exams were based on the main coursebook, "Grammar in Use: Intermediate" written by Murphy et al. (2018). More precisely, each quiz included 10 questions, taken from the coursebook, most of which were fill-in-the-blank questions, with a limited number of sentence completion questions. However, the mid-term and final-term exams consisted of 20 questions, respectively, with more various question types such as multiple-choice, fill-in-the-blank, grammar correction, sentence completion, and sentence translation. However, the test items were modified from their original forms in order to assess the test-takers' application ability. A sample of the tests appears in Appendix C.

### 3. Procedure and Data Analysis

The research period lasted for the whole spring semester of 2022. The questionnaire survey and the grammar achievement tests were administered during regular class hours at intervals to avoid any potential impact on each other, following Seker's (2016) approach. They were completed in a pen-and-pencil format.

#### 1) The Questionnaire Survey

The questionnaire survey was administered right prior to the final exam period at the end of the semester. The participants were presented with detailed guidelines on how to complete the questionnaire. They were asked to fill out their demographics such as gender, academic year, nationality, time commitment to English study per week, and the length of stay in English speaking countries in the first section of the questionnaire. They were then instructed to move on to the second section where they read through each questionnaire item involving SRL strategies and select one response from the available choices for each item on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) wherein a higher score was indicative of better self-regulation in grammar learning by students. This scale was used to identify the extent to which they use each SRL strategy item. The respondents were allowed to complete the questionnaire without a time limit mainly because time pressure by no means helps to elicit honest responses from the participants. It took about 18 to 25 minutes to complete the questionnaire.

The data obtained from the questionnaire survey were analyzed using IBM SPSS Statistics 25 package. An independent samples *t*-test was run to test the first three research questions as to whether there are statistically significant differences in the use of SRL strategies (1) between high- and low-level groups of students, (2) between male and female students, and (3) between those students who devoted more time to English study and those who devoted less time.

#### 2) The Grammar Achievement Tests

The grammar achievement tests were implemented at intervals: the mid-term quiz at the 5<sup>th</sup> week, the mid-term exam at the 8<sup>th</sup> week, the final quiz at the 12<sup>th</sup> week, and the final exam at the 15<sup>th</sup> week. The students were allowed 7 minutes in which to complete each quiz and 50 minutes in which to complete each exam. When taking quizzes and exams, the students were not allowed to refer to any reference books, as was the case in Pintrich and De Groot's (1990) research.

Since grammatical correctness can be determined and assessed on the basis of grammatical rules, the researcher alone graded the tests without using multiple raters. The

grading system assigned points for the correct performance on the quizzes and exams. More precisely, for each quiz consisting of 10 questions, a correct answer received 0.5 point, with the maximum score being 5 points, whereas for each exam comprising 20 questions, a correct answer received 2 points, with the maximum score being 40 points. Thus, the full mark by adding up the scores obtained from these four types of tests was 90. Each student's scores were added up to generate a total score. Pearson correlation coefficients were calculated to address the potential connection between the use of the six types of SRL strategies and the grammar achievement test scores,

## IV. RESULTS

### 1. Individual Differences in SRL Strategy Use

Our first research inquiry pertains particularly to whether there are any differences between high- and low-level groups in the use of SRL strategies. An independent samples *t*-test was used to answer this inquiry, the results of which are encapsulated in Table 3.

**TABLE 3**  
**The Use of SRL Strategies by the Level of Grammar Knowledge**

Type	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Meta-cognitive	High	68	4.26	0.54	8.29***	0.000
	Low	63	3.32	0.75		
Cognitive	High	68	3.78	0.69	5.87***	0.000
	Low	63	2.98	0.85		
Meta-affective	High	68	3.58	0.82	2.29*	0.024
	Low	63	3.24	0.90		
Affective	High	68	4.07	0.71	3.72***	0.000
	Low	63	3.58	0.81		
Meta-SI	High	68	3.49	0.83	3.89***	0.000
	Low	63	2.93	0.81		
SI	High	68	3.60	0.89	4.02***	0.000
	Low	63	2.99	0.82		
Total	High	68	3.80	0.55	5.87***	0.000
	Low	63	3.17	0.66		

\**p* < .05, \*\*\**p* < .001

Interestingly enough, statistically significant differences were evident between the high- and low-level students not only in the overall use of SRL strategies but also in the use of each SRL strategy type, with the former group being a significantly higher user of SRL

strategies than the latter. To be more precise, the high-level students ( $M = 3.80$ ,  $SD = 0.55$ ) reported a significantly higher rate of overall strategy use than the low-level ones ( $M = 3.17$ ,  $SD = 0.66$ ) ( $t = 5.87$ ,  $p = 0.000$ ). By the same token, the former group outperformed the latter in the use of meta-cognitive strategies ( $M = 4.26$ ,  $SD = 0.54$  vs.  $M = 3.32$ ,  $SD = 0.75$ ) ( $t = 8.29$ ,  $p = 0.000$ ) and cognitive strategies ( $M = 3.78$ ,  $SD = 0.69$  vs.  $M = 2.98$ ,  $SD = 0.85$ ) ( $t = 5.87$ ,  $p = 0.000$ ). Moreover, the high-level group had a higher level of sensitivity to emotions than the low-level one, given that the former group was better than the latter at deploying meta-affective strategies ( $M = 3.58$ ,  $SD = 0.82$  vs.  $M = 3.24$ ,  $SD = 0.90$ ) ( $t = 2.29$ ,  $p = 0.024$ ) and affective strategies ( $M = 4.07$ ,  $SD = 0.71$  vs.  $M = 3.58$ ,  $SD = 0.81$ ) ( $t = 3.72$ ,  $p = 0.000$ ). Going one step further, the students with more grammar knowledge interacted more actively with classmates and the teacher while learning grammar than those with less grammar knowledge, seeing that the former group outstripped the latter in the use of meta-SI strategies ( $M = 3.49$ ,  $SD = 0.83$  vs.  $M = 2.93$ ,  $SD = 0.81$ ) ( $t = 3.89$ ,  $p = 0.000$ ) and SI strategies ( $M = 3.60$ ,  $SD = 0.89$  vs.  $M = 2.99$ ,  $SD = 0.82$ ) ( $t = 4.02$ ,  $p = 0.000$ ).

These findings were in full accord with earlier studies which looked into language learning strategy use (Green & Oxford, 1995) and SRL strategy use (Cho & Ma, 2018, 2021; Wang & Pape, 2005), all of which agreed that high-proficiency learners employed a greater range and number of strategies than their low-proficiency counterparts. They indicate that the former group had a higher capacity than the latter to regulate grammar learning processes by setting goals for learning, monitoring and controlling their cognition, motivation, and behavior (Oxford, 2011; Pintrich, 2000).

**TABLE 4**  
**The Use of SRL Strategies by Gender**

Type	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Meta-cognitive	Male	42	3.43	0.75	-3.86***	0.000
	Female	89	3.98	0.77		
Cognitive	Male	42	3.05	0.94	-3.03**	0.003
	Female	89	3.56	0.79		
Meta-affective	Male	42	3.28	0.91	-1.22	0.224
	Female	89	3.48	0.86		
Affective	Male	42	3.57	0.84	-2.64**	0.009
	Female	89	3.96	0.75		
Meta-SI	Male	42	2.96	0.90	-2.43*	0.017
	Female	89	3.34	0.82		
SI	Male	42	3.05	0.77	-2.24*	0.027
	Female	89	3.43	0.94		
Total	Male	42	3.22	0.70	-3.25***	0.001
	Female	89	3.62	0.64		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Another variable under investigation was the role of gender in the use of SRL strategies. The data were analyzed using an independent samples *t*-test to ascertain whether males and females differ in SRL strategy use. The results of the analysis are listed in Table 4.

Statistically significant differences were identified in the overall use of SRL strategies between males and females, with the latter group ( $M = 3.62, SD = 0.64$ ) making far greater use of SRL strategies than the former ( $M = 3.22, SD = 0.70$ ) ( $t = -3.25, p = 0.001$ ). Out of the six SRL types, five also consistently exhibited significant gender differences, in each case, with females having a higher level of self-regulation than males. More specifically, females dominated over males in the use of meta-cognitive strategies ( $M = 3.98, SD = 0.77$  vs.  $M = 3.43, SD = 0.75$ ) ( $t = -3.86, p = 0.000$ ) at the significance level of .001 and in the use of cognitive strategies ( $M = 3.56, SD = 0.79$  vs.  $M = 3.05, SD = 0.94$ ) ( $t = -3.03, p = 0.003$ ) at the significance level of .01. These two types of strategies suggest that females expended a greater deal of strategic effort than males to construct, transform, and apply L2 grammatical knowledge as well as to guide these cognitive dimension of grammar learning.

Females' superiority to males was also apparent in the use of affective strategies at the significance level of .01 ( $M = 3.96, SD = 0.75$  vs.  $M = 3.57, SD = 0.84$ ) ( $t = -2.64, p = 0.009$ ). This finding corroborates Tseng et al.'s (2017) claim that women may have better emotion control skills than men. The use of meta-SI and SI strategies also exhibited gender differences, but the differences in these two strategy types were smaller than those in the aforementioned types since the differences existed at the significance level of .05. Females ( $M = 3.34, SD = 0.82$ ) employed more numerous meta-SI strategies than males ( $M = 2.96, SD = 0.90$ ) ( $t = -2.43, p = 0.017$ ), and the same was exactly true in the use of SI strategies ( $M = 3.43, SD = 0.94$  vs.  $M = 3.05, SD = 0.77$ ) ( $t = -2.24, p = 0.027$ ). Yet, meta-affective subscale showed no gender differences, which suggests that the two gender groups employed meta-affective strategies to a similar extent. The overall results were in congruity with those of prior work on self-regulation (Tseng et al., 2017), which indicated that gender has a significant effect on EFL learners' proactive control of strategy use.

Deserving greater attention was an inquiry as to whether the learners' time commitment to English study influences SRL strategy use. An independent samples *t*-test was run to respond to this inquiry. Consider the obtained results tabulated in Table 5. The analysis revealed statistically significant differences in the overall use of SRL strategies between those students with more time commitment to English study and those with less time commitment to English study, with the former group ( $M = 3.71, SD = 0.55$ ) obtaining a significantly higher mean score than the latter ( $M = 3.24, SD = 0.74$ ) ( $t = 4.09, p = 0.000$ ).

**TABLE 5**  
**The Use of SRL Strategies by the Amount of Study Time**

Type	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>T</i>	<i>p</i>
Meta-cognitive	More time	72	3.99	0.70	2.93**	0.004
	Less time	59	3.58	0.86		
Cognitive	More time	72	3.66	0.72	4.02***	0.000
	Less time	59	3.07	0.93		
Meta-affective	More time	72	3.55	0.77	1.99*	0.049
	Less time	59	3.25	0.97		
Affective	More time	72	4.03	0.65	3.22**	0.002
	Less time	59	3.58	0.89		
Meta-SI	More time	72	3.41	0.74	2.90**	0.004
	Less time	59	2.98	0.95		
SI	More time	72	3.61	0.80	4.51***	0.000
	Less time	59	2.94	0.89		
Total	More time	72	3.71	0.55	4.09***	0.000
	Less time	59	3.24	0.74		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

More time = Students who spent more time studying English

Less time = Students who spent less time studying English

A similar tendency was detected across all the six strategy types. Out of them, cognitive and SI categories exhibited the greatest differences between the two groups at the level of .001. In other words, the students who spent more time studying English ( $M = 3.66$ ,  $SD = 0.72$ ) were more inclined to regulate cognitive dimension of grammar learning than those who spent less time studying English ( $M = 3.07$ ,  $SD = 0.93$ ) ( $t = 4.02$ ,  $p = 0.000$ ). In a similar vein, SI strategies were deployed by the students with more time commitment to English study ( $M = 3.61$ ,  $SD = 0.80$ ) to a greater extent than by those with less time commitment ( $M = 2.94$ ,  $SD = 0.89$ ) ( $t = 4.51$ ,  $p = 0.000$ ). These findings suggest that the students who spent more time studying English expended more effort not only to construct grammar knowledge but also to promote interactions with their teacher or peers.

Likewise, metacognitive strategies were employed more frequently by the students with more time commitment to English study ( $M = 3.99$ ,  $SD = 0.70$ ) than by those with less time commitment ( $M = 3.58$ ,  $SD = 0.86$ ) ( $t = 2.93$ ,  $p = 0.004$ ). This indicates that, compared with the latter group, the former group had a greater self-regulatory capacity to guide the cognitive dimension of grammar learning.

The student group with more time commitment to English study also paid more attention to the affective dimension of grammar learning than the one with less time commitment, as the former group surpassed the latter in handling meta-affective strategies ( $M = 3.55$ ,  $SD = 0.77$  vs.  $M = 3.25$ ,  $SD = 0.97$ ) ( $t = 1.99$ ,  $p = 0.049$ ) and affective strategies ( $M = 4.05$ ,  $SD =$

0.65 vs.  $M = 3.58$ ,  $SD = 0.89$ ) ( $t = 3.22$ ,  $p = 0.002$ ). These findings suggest that the students who spent a greater amount of study time are more aware of positive attitudes, supportive emotions, and motivation than those who spent less study time. In addition, the former group was more able than the latter to guide the sociocultural and interactional dimension, as evidenced in their use of meta-SI strategies ( $M = 3.41$ ,  $SD = 0.74$  vs.  $M = 2.98$ ,  $SD = 0.95$ ) ( $t = 2.90$ ,  $p = 0.004$ ).

These results taken together were consonant with what was reported by Sheorey and Babkczky (2008), who found that EFL learners who reported spending more time reading academic texts had significantly higher mean values for problem-solving, global, and support strategies than did those who reported spending less time. It seems reasonable to conclude that study time has a powerful effect on the frequency of SRL strategy use, indicating that the learners with greater time commitment to English study generally had a higher degree of SRL skills than those with less time commitment.

## 2. The Relationship of SRL Strategy Use with Grammar Achievement

Last, but certainly not least, was the inquiry as to whether there is any relationship between key strategies and metastrategies on the one hand and, more importantly, between SRL strategy use and grammar achievement test scores on the other. In response to these questions, the data were analyzed using Pearson correlation coefficients, as presented in Table 6.

**TABLE 6**  
**The Correlations between SRL Strategy Use and Grammar Test Scores**

	1	2	3	4	5	6	7
1	1						
2	0.690***	1					
3	0.485***	0.600***	1				
4	0.553***	0.599***	0.644***	1			
5	0.504***	0.525***	0.475***	0.626***	1		
6	0.457***	0.569***	0.561***	0.628***	0.607***	1	
7	0.534***	0.418***	0.107	0.230**	0.223*	0.343***	1

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

1 = Metacognitive, 2 = Cognitive, 3 = Meta-affective, 4 = Affective, 5 = Meta-sociocultural-interactive, 6 = Sociocultural-interactive, 7 = Grammar test scores

With reference to the relationship between key strategies and their corresponding metastrategies, the analysis showed that the former had significant, positive correlations with the latter. Specifically, the highest correlation was between cognitive and metacognitive strategies ( $r = 0.690$ ,  $p = 0.000$ ), but the lowest was between SI and meta-SI strategies ( $r = 0.607$ ,  $p = 0.000$ ), with the correlation between affective and meta-affective strategies ( $r =$

0.644,  $p = 0.000$ ) falling somewhere in between. These findings can be interpreted as follows: (1) The more metacognitive strategies the learners used, the more cognitive strategies they employed or the other way around; (2) As their use of meta-affective strategies increased, so did their use of affective strategies or the other way around; (3) The level of their use of meta-SI strategies went up, so did the level of their use of SI strategies or the other way around.

On closer inspection, five out of the six types of SRL strategies had a positive correlation with grammar learning outcomes obtained from grammar achievement tests. Among them, the highest correlation was found between metacognitive strategies and the grammar test scores with an  $r$  value of .534 at .001 level, which was immediately followed by the correlation between cognitive strategies and the test scores ( $r = 0.418$ ,  $p = 0.000$ ). These results indicate that those students who used a higher level of meta-cognitive and cognitive strategies, respectively, scored higher in their grammar tests or the other way around.

Table 6 also showed that the grammar test scores had a statistically significant correlation with SI strategies ( $r = 3.343$ ,  $p = 0.000$ ), affective strategies ( $r = 0.230$ ,  $p = 0.011$ ) and meta-SI strategies ( $r = 0.223$ ,  $p = 0.011$ ), though the strength of the correlation was rather weak in the case of the last strategy type. However, meta-affective strategies were not correlated with the test scores ( $r = 0.107$ ). These findings suggest that the more often the learners employed SI, meta-SI, and affective strategies, respectively, the higher test scores they obtained or the other way around.

Taken together, the above findings indicate that most of the strategy types save meta-affective one are closely tied to grammar learning outcomes. They lent support to the widely-held claim that self-regulatory capacity acts as a foundation for enhancing academic performance or achievement (Pintrich & De Groot, 1990; Schunk & Zimmerman, 1998; Zimmerman & Schunk, 2011).

## V. CONCLUSIONS AND PEDAGOGICAL IMPLICATIONS

Thus far this study has delved into EFL learners' use of SRL strategies and its relationship with grammar achievement test scores. A close scrutiny of the SRL data has led to many intriguing results, which have significant pedagogical implications.

With respect to the level of grammar knowledge, all the six types of SRL strategies were deployed more frequently by the students with a higher level of grammar knowledge than by those with a lower level of grammar knowledge in grammar learning. This was concordant with the widely reported finding that high-proficiency learners made more extensive use of learning strategies than low-proficiency ones (Green & Oxford, 1995). The frequency disparity of SRL strategies between the two groups apparently suggests that the

high-level students tended to have a greater capacity for self-regulation by taking effective control of various aspects of their grammar learning (Oxford, 2011). Interpreted in a different way, this finding indicates that the low-level students had a significantly lower capacity to regulate their grammar learning processes.

Exactly the same held true for the learners' time commitment to English study, considering the finding that those students who devoted more time to English study invariably outperformed those who devoted less time to English study in the use of all the six SRL strategy types, not to mention the overall use of SRL strategies. This finding implies that those with less time commitment to English study had a poorer capacity for self-regulation. A plausible reason for this is that their less exposure to English language input for shorter study hours was likely to provide far fewer opportunities to engage in the self-regulatory processes in grammar classes, which eventually led them to have a fairly limited repertoire of SRL strategies.

These findings suggest that there is a strong need for strategies-based instructions for those students who had a low level of grammatical knowledge and those who devoted less time to English study. In the strategies-based instructions, the two learner groups should be trained to raise the awareness of the multi-faceted strands of self-regulation ranging from metacognitive, cognitive, meta-affective, and affective dimensions to meta-SI and SI dimensions of grammar learning, all of which were crucial yet unheeded components of self-regulation. In this case, they should be encouraged to take the initiative to set clear grammar learning goals, monitor their own grammar learning process and progress, control their thoughts, emotions, motivation, and behaviors as related to grammar learning, and evaluate their grammar learning processes, among others. By doing this, they will be able to identify what kinds of grammatical structures they are particularly weak at and then cope adequately with their grammatical problems by capitalizing on relevant SRL strategies. This approach to multiple SRL strategies will, as Chen et al. (2020) claimed, facilitate the grammar learning processes.

Findings also revealed that gender differences emerged in most, but not all, of the SRL components examined, indicating that female students had a higher tendency to employ SRL strategy types except the meta-affective type than their male counterparts. The finding showing no significant differences between the two gender groups in the use of meta-affective strategies was compatible with Dörnyei and Ryan's (2015) point that the differences in strategy use resulting from the influence of gender were not as great as differences resulting from L2 proficiency. Among the findings, females' superiority over males in the use of affective and SI strategies can be accounted for in part by female traits: Females are more sensitive, sociable, empathetic, and emotional, compared with males (Green & Oxford, 1995). These personal traits were likely to induce females to regulate their emotions and their interactions (Oxford, 2011). These gender gaps call for SRL instructions where male

students should be highly sensitized to self-regulatory behaviors such as constructing grammar knowledge, managing supportive emotions, activating interactions for learning grammar in addition to activating the use of metastrategies. This effort will assist them to exert adequate control over their thoughts, behaviors, and feelings while learning grammar.

Another set of findings worthy of consideration was that key SRL strategies were positively correlated with their corresponding metastrategies. This implies that, as the use of key SRL strategies increased, so did the use of metastrategies or the other way around. This finding concurred with Habók et al.'s (2022) finding, which showed a high correlation between the different factors of key strategies and their corresponding metastrategies. The positive correlation between the two dimensions was of great significance, considering Oxford's (2011) point that metastrategies play a vital role in guiding and controlling the use of key SRL strategies. Oxford (2011) further highlighted the importance of metastrategies, adding that metastrategies, by virtue of their executive-control and management function, help learners know whether and how to deploy a given strategy and aid in determining whether the strategy is working or has worked as intended. Hence, the direct relation between the metastrategies and their corresponding key strategies will facilitate the interaction between the two, with the former dimension acting as a guiding light for the latter.

The crux of our report was that there was a positive correlation between the use of the five sub-sets of SRL strategies (meta-cognitive, cognitive, affective, meta-SI, and SI strategies) and grammar achievement test scores, though the use of meta-affective strategies was not found to be correlated with the test scores. These findings were in keeping with what had been reported by many studies (e.g. Chen et al., 2020; Pintrich & De Groot, 1990; Wang & Pape, 2005; Zimmerman & Schunk, 2011), which demonstrated that the extent to which learners are capable of managing and regulating their own learning is closely tied to their academic performances in one way or another. This opens the possibility that the higher use of meta-cognitive, cognitive, affective, meta-SI, and SI strategies would contribute to the substantial improvement of grammar learning performance or the other way around. This eventually underlines the importance of SRL strategies as a key to success in learning grammar. In this sense, it is vital to empower students through self-regulated strategy training to effectively plan, manage, and control their grammar learning processes, thereby developing their grammar ability.

This research is not free from limitations. It was based upon a set of data collected from one university only. Moreover, the sample size of the participants was somewhat limited, with only a few international students in terms of nationality, which restricted the generalizability of the research findings. These concerns consequently call for more comprehensive research using a larger and more diverse range of learners of different ethnicities from more universities so as to validate the findings of the present study and better understand the intricacies of EFL learners' self-regulatory mechanisms. In spite of these

limitations, the findings of the study will provide insights into how EFL learners' use of SRL strategies varies depending on their level of grammar knowledge, gender, and the amount of time spent studying English. This will in turn give instructors ideas about what should be stressed in strategies-based instructions on self-regulation. When the learners take effective control of a wide array of self-regulatory behaviors, they can develop a proactive approach to grammar learning, which will ultimately assist them to improve their grammar achievement or grammar learning performances.

## REFERENCES

- Allen, D., & Mills, A. (2014). The impact of second language proficiency in dyadic peer feedback. *Language Teaching Research*, 20(4), 1-16. <https://doi.org/10.1177/1362168814561902>
- Bai, B., & Wang, J. (2021). Hong Kong secondary students' self-regulated learning strategy use and English writing: Influences of motivational beliefs. *System*, 96, 1-14. <https://doi.org/10.1016/j.system.2020.102404>
- Bussey, K. (2011). The influence of gender on students' self-regulated learning and performance. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 426-441). Routledge.
- Chen, X., Wang, C., & Kim, D. (2020). Self-regulated learning strategy profiles among English as a foreign language learners. *TESOL Quarterly*, 54(1), 234-251. <https://doi.org/10.1002/tesq.540>
- Chin, C. (2021). The impact of self-efficacy and self-regulated learning strategies on EFL college students' academic achievement: Links to gender. *English Language & Literature Teaching*, 27(3), 1-26. <https://doi.org/10.35828/etak.2021.27.3.1>
- Cho, Y. A. (2022). Self-regulated learning strategies and self-efficacy in a Korean EFL writing context. *Studies in English Language & Literature*, 64(3), 319-343. <https://doi.org/10.18853/jjel.2022.64.3.014>
- Cho, Y. A., & Kim, Y. (2019). The relationship between self-efficacy beliefs and self-regulated learning strategies in Korean EFL learners. *The Linguistic Association of Korea Journal*, 27(3), 53-74. <https://doi.org/10.24303/lakdoi.2019.27.3.53>
- Cho, Y. A., & Ma, J. H. (2018). Self-regulated learning and English proficiency of Korean EFL college students. *Studies in English Language & Literature*, 44(1), 219-241. <https://doi.org/10.21559/aellk.2018.44.1.011>
- Cho, Y. A., & Ma, J. H. (2021). Online English language learning motivation and self-regulation of Korean university students. *Studies in Linguistics*, 59, 351-373. <https://doi.org/10.17002/sil.59.202104.351>

- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum.
- Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.
- Ellis, R. (2004). Individual differences in second language learning. In A. Davies & C. Elder (Eds.), *The handbook of applied linguistics* (pp. 525-551). Blackwell.
- Fukuda, A. (2018). The Japanese EFL learners' self-regulated language learning and proficiency. *Journal of Pan-Pacific Association of Applied Linguistics*, 22(1), 65-88. <https://doi.org/10.25256/PAAL.22.1.4>
- Green, J. M., & Oxford, R. L. (1995). A closer look at learning strategies, L2 proficiency, and gender. *TESOL Quarterly*, 29(2), 261-297. <https://doi.org/10.2307/3587625>
- Griffiths, C., & Oxford, R. L. (2014). The twenty-first century landscape of language learning strategies: Introduction to this special issue. *System*, 43, 1-10. <https://doi.org/10.1016/j.system.2013.12.009>
- Habók, A., Magyar, A., & Molnár, G. (2022). English as a foreign language learners' strategy awareness across proficiency levels from the perspective of self-regulated learning metafactors. *Frontiers in Psychology*, 13, 1-13. <https://doi.org/10.3389/fpsyg.2022.1019561>
- Hirt, C., Karlen, Y., Merki, K., & Suter, F. (2021). What makes high achievers different from low achievers? Self-regulated learners in the context of a high-stakes academic long-term task. *Learning and Individual Differences*, 92(3), 1-14. <https://doi.org/10.1016/j.lindif.2021.102085>
- Hong, Z., Im, Y., & Li, C. (2016). A study of the effects of learner characteristics on the self-regulated learning ability: A comparison of Korea and China. *Educational Technology International*, 17(1), 59-85.
- Jeon, J. (2011). The effect of self-regulated learning ability components on English performance. *Journal of Language Sciences*, 18(4), 145-168. <https://www.earticle.net/Article/A161267>
- Kepner, C. G. (1991). An experiment in the relationship of types of written feedback to the development of second-language writing skills. *Modern Language Journal*, 75(3), 305-313. <https://doi.org/10.1111/j.1540-4781.1991.tb05359.x>
- Lee, J., & Ko, Y. (2023). Effects of self-regulation, goal orientation, and anxiety on EFL speaking in metaverse and face-to-face contexts. *English Teaching*, 78(4), 219-248. <https://doi.org/10.15858/engtea.78.4.202312.219>
- Lee, M. (2008). Students' differences in self-regulated learning EFL achievement and gender. *Korean Journal of Applied Linguistics*, 24(2), 123-140.
- Murphy, R., Smalzer, W., & Chapple, J. (2018). *Grammar in use: Intermediate* (4<sup>th</sup> ed.). Cambridge University Press.

- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Newbury House.
- Oxford, R. L. (2011). *Teaching and researching: language learning strategies*. Routledge.
- Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation: Theory, research, and applications* (pp. 451-502). Academic Press. <https://doi.org/10.1016/B978-012109890-2/50043-3>
- Pintrich, P., & De Groot, E. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82(1), 33-40. <https://doi.org/10.1037/0022-0663.82.1.33>
- Rose, H. (2012). Reconceptualizing strategic learning in the face of self-regulation: Throwing language learning strategies out with the bathwater. *Applied Linguistics*, 33(1), 92–98. <https://doi.org/10.1093/applin/amr045>
- Saito, A. (2020). Strategy use, self-efficacy beliefs, and self-regulatedness in adult foreign language learning. *Australian Journal of Applied Linguistics*, 3(2), 152-167. <https://doi.org/10.29140/ajal.v3n2.282>
- Schunk, D. H. (2005). Self-regulated learning: The educational legacy of Paul R. Pintrich. *Educational Psychologist*, 40(2), 85-94. [https://doi.org/10.1207/s15326985ep4002\\_3](https://doi.org/10.1207/s15326985ep4002_3)
- Schunk, D. H., & Zimmerman. B. J. (1998). *Self-regulated learning: From teaching to self-reflective practice*. Guilford Press.
- Seker, M. (2016). The use of self-regulation strategies by foreign language learners and its role in language achievement. *Language Teaching Research*, 20(5), 600–618. <https://doi.org/10.1177/1362168815578550>
- Sheorey, R., & Baboczky, E. S. (2008). Metacognitive awareness of reading strategies among Hungarian college students. In K. Mokhtari & R. Sheorey (Eds.), *Reading strategies of first and second language learners: See how they read* (pp. 161–174). Christopher-Gordon Publishers.
- Studenska, A. (2011). Educational level, gender and foreign language learning self-regulation difficulty. *Procedia - Social and Behavioral Sciences*, 29, 1349–1358. <https://doi.org/10.1016/j.sbspro.2011.11.373>
- Teng, F., & Huang, J. (2019). Predictive effects of writing strategies for self-regulated learning on secondary school learners' EFL writing proficiency. *TESOL Quarterly*, 53(1), 232-247. <https://doi.org/10.1002/tesq.462>
- Teng, L., & Zhang, L. J. (2016). A questionnaire-based validation of multidimensional models of self-regulated learning strategies. *Modern Language Journal*, 100(3), 674-701. <https://doi.org/10.1111/modl.12339>

- Tseng, W.-T., Dörnyei, Z., & Schmitt, N. (2006). A new approach to assessing strategic learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics*, 27(1), 78-102. <https://doi.org/10.1093/applin/ami046>
- Tseng, W.-T., Liu, H., & Nix, J.-M. L. (2017). Self-regulation in language learning: Scale validation and gender effects. *Perceptual and Motor Skills*, 124(2), 531-548. <https://doi.org/10.1177/0031512516684293>
- Wang, C., & Bai, B. (2017). Validating the instruments to measure ESL/EFL learners' self-efficacy beliefs and self-regulated learning strategies. *TESOL Quarterly*, 51(4), 931-947. <https://doi.org/10.1002/tesq.355>
- Wang, C., Kim, D.-K., Bong, M., & Ahn, H. S. (2013). Korean college students' self-regulated learning strategies and self-efficacy beliefs in learning English as a foreign language. *The Asian EFL Journal Quarterly*, 15(3), 81-112. <https://scholar.korea.ac.kr/handle/2021.sw.korea/105860>
- Wang, C., & Pape, S. J. (2005). Self-efficacy beliefs and self-regulated learning strategies in learning English as a second language: Four case studies. *The CATESOL Journal*, 16(1), 1-19. <https://doi.org/10.5070/B5.36342>
- Zeng, Y., & Goh, C. C. (2018). A self-regulated learning approach to extensive listening and its impact on listening achievement and metacognitive awareness. *Studies in Second Language Learning and Teaching*, 8(2), 193-218. <https://doi.org/10.14746/ssllt.2018.8.2.2>
- Zimmerman, B. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). Academic Press. <https://doi.org/10.1016/B978-012109890-2/50031-7>
- Zimmerman, B., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology*, 82(1), 51-59. <https://doi.org/10.1037/0022-0663.82.1.51>
- Zimmerman, B., & Schunk, D. (2011). *Handbook of self-regulation of learning and performance*. Routledge.

## APPENDIX A

### A Sample of the Diagnostic Test Items

Choose the one which is grammatically correct.

1. If I were rich, I \_\_\_\_\_ a lot.  
 ① will travel    ② can travel    ③ would travel    ④ traveled
2. Are you looking forward \_\_\_\_\_ on vacation?  
 ① going    ② to go    ③ to going    ④ that you go

## APPENDIX B

### The SRL Questionnaire

#### I. Metacognitive strategies

1. I pay attention to the explanation in grammar lessons.
2. I plan my study time based on the complexity of the grammar task.
3. I monitor my clarity of thought after half an hour of studying grammar.
4. I consider whether the grammar task is easy or not.
5. I think about whether I know the material well enough to do well on the next grammar test.
6. After every grammar task I do a judgment of my learning: how much do I remember, what did I learn, why is it important?

#### II. Cognitive strategies

7. I find it useful to go to Youtube to see whether there is a video on the grammar point I am learning about.
8. I audio-record anything that seems important to me in grammar classes so that I can listen to it later and improve my comprehension.
9. I write a new grammar structure many times to remember it.
10. I distinguish between more important and less important information about grammar that I learn.
11. I put grammatical structures in order by alphabetical order.
12. I underline or circle the grammatical structures that I need to study the most.

#### III. Meta-affective strategies

13. When I plan by breaking the grammar task down into steps, I feel more confident.
14. I search for relaxing music to play in the background while I study grammar.
15. I ask myself how I can have fun with the grammar task and organize things that way.
16. I monitor how I am feeling when my thoughts wander.
17. I use deep breathing as a way to relax before I have to study grammar.

#### IV. Affective strategies

18. I tell myself that if I study grammar hard now, the next grammar test will be easier.
19. I encourage myself to take risks during the grammar task.
20. While doing the grammar task, I remind myself of how much I enjoy studying grammar.
21. I intentionally make a grammatical error so that I will not be anxious about making one.
22. I study grammar hard so that I will avoid bad grades and will not feel bad about myself.
23. I think about all the things I like about English grammar. This motivates me.

## V. Meta-sociocultural strategies

24. I prefer to work with others, and this fits well with the steps I have to take to improve my grammar.
25. I consider whether the grammar task will require me to interact with others and how to deal with that.
26. I look for opportunities to practice my grammar with other people online.
27. I turn off the TV so that I can better understand grammar points.
28. I check whether I am understanding what the speaker says about grammar, particularly if it is in a slightly different dialect from the one I know.
29. I evaluate my performance on the grammar task by checking it against that of the best student.

## VI. Sociocultural-interactive strategies

30. I go to the chat room even if I don't have any grammar questions to ask, because it allows others to know I am interested.
31. If I do not understand what the teacher is saying about today's grammar assignment, I ask my friend to explain it to me.
32. I email my teacher or another student to get clarification when I am confused about this week's homework, especially about the difficult grammar points.
33. I write down what is new to me in the culture when I study grammar so I can think about what it means.
34. Whenever I imitate a native speaker's posture during the grammar task, I try to think of the cultural meanings.

## APPENDIX C

## A Sample of the Achievement Test Items

Choose the one that best completes the blank.

1. Chad \_\_\_\_\_ a heavy box when he hurt his waist.  
 ① carries      ② is carrying      ③ carried      ④ was carrying

Complete the blank with the relevant form of the given word.

8. There was a very serious problem with his car at first, but the problem seems \_\_\_\_\_(solve).

Try to correct ungrammatical part(s) of the sentence(s).

18. I met a lady whose younger brother I went to school. She looked depressing.

**Examples in: English**

**Applicable Language: English**

**Applicable Levels: Tertiary**

Woo-hyun Jung (professor)

Dept. of English Interpretation & Translation, Yeungnam University

280, Daehak-ro, Gyeongsan-si, Gyeongsangbuk-do, 38541, Korea

Email: woohjung@ynu.ac.kr

Received : April 15, 2025

Reviewed : May 29, 2025

Revised version received : June 25, 2025