

# The Effects of Instruction in Self-Regulated Learning Strategies on English Writing Anxiety

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## 1. Introduction

There has been more focused on writing ability in English education in Japan. For example, in the Course of Study for junior high school, as revised by the Ministry of Education, Culture, Sports, Science and Technology in 2017, learners are expected to pay attention to the connection between sentences, as they write, so that one can convey one's thoughts to readers accurately. The number of high schools that adopt paragraph writing to foster English writing ability has been increasing recently. Many universities still run remedial English classes due to lack of basic English ability of freshmen. This means that there is much difficulty in fostering English writing ability longitudinally. A lot of previous research showed that writing anxiety negatively correlated with students' performance, therefore it could be inferred that many Japanese English learners have strong feeling of anxiety toward English writing.

Concerning foreign language anxiety, Horwitz, Horwitz & Cope (1986) defined it as a distinct complex combination of self-perceptions, beliefs, feelings, and behaviors related to the uniqueness of the language learning process. They also showed three general components of language anxiety: communication apprehension, test anxiety, and fear of negative evaluation in general foreign language learning classrooms.

According to Horwitz et al., this anxiety could take place in any setting intertwined with language performance. Moreover, they proposed a way of measuring anxiety using the Foreign Language Classroom Anxiety Scale (FLCAS). A large of number researchers have utilized the FLCAS to measure foreign language classroom anxiety. But most of them have focused on finding correlations between anxiety and oral performance (Horwitz, 2001). This is because a lot of researchers have thought that speaking is the most anxiety-provoking of the four language skills. Also, Cheng, Horwitz, & Schallert (1999) and Horwitz (2001) differentiated language-skill-specific anxiety from general second language classroom anxiety. Some of researchers have focused more attention on identifying and examining anxiety associated with specific language skills such as reading, listening, and writing.

There has been a lot of research conducted on second language writing anxiety. Daly & Miller (1975) developed the writing apprehension test (WAT), which has been the most commonly adopted measurement instrument of second language writing anxiety and has contributed to research in understanding writing anxiety. Much of the research on ESL writing has indicated that writing anxiety would have negative effects on writing performance (Horwitz, 2001; Cheng, 2004). Cheng, Horwitz, and Schallert (1999) suggested that second language writing anxiety

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was a language-skill-specific anxiety and summed up that previous studies of writing anxiety were negatively associated with the individuals' actual writing behavior, their writing performance, and their willingness to write. Cheng et al. also investigated the associations with speaking and writing achievement among Taiwanese college students. Their findings were that the anxiety associated with performing in foreign language classrooms and writing anxiety were clearly distinguishable. Based on studies concerning writing anxiety mentioned above, Cheng (2004) proposed the Second Language Writing Anxiety Inventory (SLWAI) to assess the levels and types of second language writing anxiety. Zhang (2011) insisted that Chang et al. was the first study to differentiate anxieties related to different second language skills by means of factors analysis.

While there is a great deal of research about anxiety, few studies have investigated writing anxiety on Japanese learners. Considering the EFL situation in Japan, it is certain that most learners have experienced writing anxiety during learning. The effect of anxiety must be reduced in order to improve writing performance. Therefore, this study focused on writing instruction, utilizing self-regulated learning strategies to reduce English writing anxiety.

Self-regulated learning has been recognized as an indispensable tool to promote student learning. Zimmerman, Bonner & Kovach (1996) said that academic self-regulation referred to self-generated thoughts, feelings, and actions intended to attain specific educational goals, such as analyzing a reading assignment, preparing to take a test, or writing a paper. It is said that high achievers characteristically tend to set more specific learning goals for themselves, use more strategies to learn, self-monitor learning progress

more frequently, and adapt their efforts more systematically. Zimmerman et al. defined the self-regulatory cycle as a system designed to enhance not only students' learning but also their perception of self-efficacy or control over the learning process. Zimmerman (1985) stated that the self-regulatory cycle helped students self-observe and self-evaluate their effectiveness, set goals and use learning strategies, as well as self-monitor changes, and adjust their strategic methods. Moreover, the self-regulatory cycle gives students a sense of personal control that is a major source of intrinsic motivation to continue learning on their own. The characteristics mentioned above are indispensable in EFL writing in terms of making the outline of a paragraph or an essay, monitoring a script with metacognitive knowledge, avoiding errors and mistakes they have made before, and so forth. Tando (2014), which served as the basis of research for this study, demonstrated the effects of writing instruction utilizing a self-regulatory cycle. According to the author, paragraph writing utilizing a self-regulatory cycle can help EFL learners acquire self-regulated learning ability. In the cycle, students are encouraged to self-observe and self-evaluate their effectiveness, set goals, use learning strategies, self-monitor changes, and adjust their strategy methods. These kinds of strategies require a certain period of instruction, which was three months in this study. Tando (2015) also showed the effects of instruction on self-regulated learning strategies in English writing revision. Therefore, instruction utilizing the self-regulatory cycle was adopted to promote the use of self-regulated learning strategies in this study. It is hoped that this study could be one of the new models of writing instruction to reduce English writing anxiety.

## 2. Research Questions

In this study, the following research questions are addressed: (1) Is instruction in self-regulated learning strategies effective in reducing the English writing anxiety of Japanese university students? (2) What would be main causes of writing anxiety in Japanese university students?

## 3. Method

### 3.1 Participants

The participants in this study were 61

undergraduate students, who were all non-native speakers of English. They were from two classes instructing grammar and writing under the same syllabus, 29 sophomores for class A and 32 juniors for class B.

Table 1 shows the descriptive statistics of G-TELP (General Tests of English Language Proficiency) Level 3 test. This test developed by International Testing Service Center is a reliable and standardized English proficiency test such as the TOEFL or TOEIC. It has five levels from 1 to 5 and the perfect score is 300. This test was conducted when participants were in their first year of study, in 2013 and in 2014, respectively.

Table 1

*Descriptive Statistics of G-TELP Level 3 Test*

Test	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Med</i>
G-TELP	61	130.2	28.20	70	194	133

It could be said that the students in this study were in the normal distribution by the results of the following test:  $\chi^2=0.76$ ,  $p=0.68$  in the omnibus tests of multi-normality based on skewness and kurtosis.

### 3.2 Materials

Two types of questionnaires were prepared for this study: a questionnaire about English writing anxiety and a questionnaire about use of self-regulated learning strategies. Five-point Likert Scales were used for these questionnaires, ranging from "strongly agree" (5) to "strongly disagree" (1).

The questionnaire about English writing anxiety was created originally based on tailoring the Writing Apprehension Test (Daly & Miller, 1975) and the Second Language Writing Anxiety Inventory (Cheng, 2004) suited to the specific Japan EFL situation by the researcher of this

study. The questionnaire consisted of six categories: Anxiety toward writing activities (five items), Anxiety toward evaluation (five items), Anxiety toward the value of writing (three items), Interest in writing (two items), Anxiety toward confidence (six items), and Anxiety during writing activities (nine items), making a total of thirty items, as shown in Appendix 1.

The pre-questionnaire about use of self-regulated learning strategies was also created originally based on Tando (2014, 2015). There were a total of six categories and thirty-two items in this questionnaire, as shown in Appendix 2: Self-efficacy (four items), Use of cognitive strategies (fourteen items), Intrinsic motivation (four items), and Use of meta-cognitive strategies (ten items).

Table 2 shows Cronbach's alpha of each category of the pre-questionnaire about English writing anxiety.

Table 2

*Cronbach's alpha of each category of the pre-questionnaire about English writing anxiety*

each category	Cronbach's alpha
Anxiety toward writing activities	.80
Anxiety toward evaluation	.85
Anxiety toward the value of writing	.76
Interest in writing	.80
Anxiety toward confidence	.72
Anxiety during writing activities	.80

As shown in Table 2, the reliability of this questionnaire was high because Cronbach's alpha coefficients were all above .70.

In addition, Table 3 shows Cronbach's alpha of each category of pre-questionnaire about use of self-regulated learning strategies.

Table 3

*Cronbach's alpha of each category of pre-questionnaire about use of self-regulated learning strategies.*

each category	Cronbach's alpha
Self-Efficacy	.78
Use of cognitive strategies	.80
Intrinsic motivation	.45
Use of meta-cognitive strategies	.78

As shown in Table 3, three categories of the reliability of this questionnaire have Cronbach's alpha coefficients of over .70. Intrinsic motivation, however, is low at .45. The study deemed this category as important. Furthermore, Cronbach's alpha of the whole pre-questionnaire is high at .80. Therefore, Intrinsic motivation was not removed from the questionnaire.

In addition, free expression column was also provided for students to write any comments in both questionnaires. They were qualitatively analyzed.

### 3.3 Procedure

This study was conducted for approximately three months, from April to July, in the first

university semester of 2015. Prior to the instruction of self-regulated learning strategies, two questionnaires were administered: a questionnaire about English writing anxiety and a questionnaire about use of self-regulated learning strategies.

Following that, students received explanation from the researcher on sixteen self-regulated learning strategies shown in Appendix 3. After being instructed on those strategies, students did paragraph writing five times with self-evaluation of their writing activities from the third class (not consecutively). The advantages of paragraph writing are that the structure is not so complicated, and it can be done during one lesson because of its brevity. In paragraph

writing, students were given the same topics from the researcher: My University Life, Memories from High School, English and Me, My Hometown, and My Future. Students wrote paragraphs about the topics mentioned above in thirty minutes and self-evaluated their paragraph writing every time using a self-evaluation sheet (Appendix 4). This self-evaluation employed a 5-point Likert scale for responses from students, ranging from "strongly agree" (5) to "strongly disagree" (1). Students could use a dictionary. After every class, the researcher gave each student feedback concerning errors and use of self-regulated learning strategies. After receiving feedback, students rewrote their paragraphs and submitted them again. After paragraph writing five times, students answered the post-questionnaires. In addition to the questionnaire

items, a free expression column was also provided to write any comments.

### 3.4 Data analysis

Concerning the analysis of two questionnaires, a *t* test was used to compare students' answers on the pre-questionnaires with the post-questionnaires. Comments written in the column were qualitatively analyzed.

## 4. Results and Discussion

### 4.1 Analysis of the questionnaires about English writing anxiety

Table 4 shows the results of the *t* test conducted for the analysis of the pre-questionnaire and post-questionnaire on English writing anxiety.

Table 4  
*Mean Scores of English writing anxiety*

	<i>N</i>	<i>df</i>	<i>M</i>		<i>SD</i>		<i>t</i> -value	95%CI		<i>Cohen's d</i>
			pre	post	pre	post		<i>LL</i>	<i>UL</i>	
Writing anxiety	61	60	3.59	3.44	0.67	0.60	3.11**	0.06	0.26	0.25

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

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

The *t* test revealed a significant difference in writing anxiety ( $t=3.11, p<.01$ ). From the above, it could be said that instruction in self-regulated learning strategies is effective in reducing English writing anxiety for Japanese university students.

Table 5 shows the results of the *t* test conducted for the analysis of each category of the questionnaire about English writing anxiety.

The *t* test revealed significant differences in Interest in writing ( $t=2.68, p<.01$ ), Anxiety toward confidence ( $t=3.33, p<.01$ ), Anxiety during writing activities ( $t=3.09, p<.01$ ). On the other hand, there were no statistically significant differences in Anxiety toward writing activities, Anxiety toward evaluation, and Anxiety toward the value of writing.

Table 5

Mean scores for each category of English writing anxiety

	<i>N</i>	<i>df</i>	<i>M</i>		<i>SD</i>		<i>t</i> -value	95%CI		<i>Cohen's d</i>
			pre	post	pre	post		<i>LL</i>	<i>UL</i>	
Anxiety toward writing activities	61	60	3.51	3.38	1.00	0.86	1.52	-0.04	0.30	0.14
Anxiety toward evaluation	61	60	3.62	3.51	1.10	1.00	1.19	-0.08	0.31	0.11
Anxiety toward the value of writing	61	60	1.79	1.94	0.76	0.80	1.65	-0.03	0.33	0.19
Interest in writing	61	60	2.93	2.59	1.24	1.04	2.68**	0.09	0.59	0.30
Anxiety toward confidence	61	60	3.86	3.64	0.68	0.57	3.33**	0.09	0.35	0.35
Anxiety while engaged in writing activities	61	60	4.21	4.00	0.64	0.65	3.09**	0.08	0.36	0.34

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

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

As shown in Table 5, there were significant differences in three categories. This might be because students could monitor and correct their writing as a result of the instructions received on self-regulated learning strategies. Also, they began to have interest in English writing because they were given positive feedback concerning their paragraph from the researcher. In addition, they understood how to write a paragraph. From the above, it could be said that English writing anxiety was reduced. However, there was no improvement in other three categories. One of the causes would be students' lack of basic

English knowledge. This was supported by free written reflection statements. These results indicated that instruction in self-regulated learning strategies is partially effective in reducing English writing anxiety.

#### 4.2 Analysis of the questionnaires about use of self-regulated learning strategies

Table 6 shows the results of the *t* test conducted for the analysis of the pre-questionnaire and post-questionnaire on use of the self-regulated learning strategies. The *t* test revealed a significant difference ( $t = 7.48, p < .01$ ).

Table 6

Mean Scores of use of the self-regulated learning strategies

	<i>N</i>	<i>df</i>	<i>M</i>		<i>SD</i>		<i>t</i> -value	95%CI		<i>Cohen's d</i>
			pre	post	pre	post		<i>LL</i>	<i>UL</i>	
Use of the Self-Regulated Learning Strategies	61	60	3.31	3.65	0.38	0.31	7.48**	0.25	0.44	0.96

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

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

Table 7 shows the results of the *t* test conducted for the analysis of each category of the questionnaire used in the self-regulated learning strategies. The *t* test revealed significant differences in Self-Efficacy ( $t=6.93, p<.01$ ),

Intrinsic Motivation ( $t=6.46, p<.01$ ), and Use of meta-cognitive strategies ( $t=7.87, p<.01$ ). On the other hand, there was no statistically significant difference in the Use of cognitive strategies.

Table 7

*Mean scores of each category of use of the self-regulated learning strategies*

	<i>N</i>	<i>df</i>	<i>M</i>		<i>SD</i>		<i>t</i> -value	95%CI		<i>Cohen's d</i>
			pre	post	pre	post		<i>LL</i>	<i>UL</i>	
Self-Efficacy	61	60	2.21	2.99	0.65	0.73	6.93**	0.55	1.00	1.13
Use of Cognitive Strategies	61	60	3.70	3.70	0.57	0.47	0.02	-0.13	0.13	0.002
Intrinsic Motivation	61	60	3.15	3.62	0.70	0.65	6.46**	0.33	0.62	0.71
Use of meta-cognitive strategies	61	60	3.27	3.87	0.27	0.15	7.87**	0.45	0.76	1.34

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

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

From these results, it could be said that the instruction of the self-regulated learning strategies has promoted use of those strategies. This could enable students to monitor and improve their English writing, which ultimately would contribute to reducing English writing anxiety.

were collected to analyze English writing anxiety qualitatively, in addition to the quantitative investigation. As shown in Table 8, the ratio of causes due to lack of knowledge of vocabulary and grammar did not change between pre and post. These results indicated that basic English ability should also be enhanced to reduce English writing anxiety.

#### 4.3 Analysis of free written reflection statements

In this study, free written reflection statements

Table 8

*Causes of English writing anxiety collected from free written reflection statements*

	pre	post
Lack of knowledge about vocabulary, grammar, word order, expressions, and so on	97 (56.7%)	70 (61.4%)
Evaluation or feedback from the teacher	27 (15.8%)	12 (10.5%)
Lack of confidence in English writing	17 (9.9%)	6 (5.3%)
Other answers	30 (17.5%)	26 (22.8%)

## 5. Conclusion

The aim of this study was to investigate the effects of instruction in self-regulated learning strategies on English writing anxiety. The investigation addressed two research questions. The study shows that instruction in self-regulated learning strategies is partially effective in reducing English writing anxiety in Japanese university students. Furthermore, it also shows that the main cause of English writing anxiety derives from lack of basic knowledge of English grammar and vocabulary.

However, there are some issues that should be addressed in future studies. One is that the result of this study is limited to the small sample size, so verification in a larger size will be required. Also, items in the questionnaire of use of the self-regulated learning strategies should be reconsidered, in particular Intrinsic Motivation because Cronbach's  $\alpha$  of this category is low. Moreover, how self-regulated learning strategies should be taught is open to discussion. In order to establish a more valid, reliable, and practical method of instruction for EFL writing, further undertaking of classroom-based research is indispensable.

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### Appendix 1: A Questionnaire about English Writing Anxiety

1	Anxiety toward writing activities	I am afraid of writing English sentences.
2		I am afraid of taking English writing classes.
3		I become uneasy when I start to write English sentences.
4		English writing makes me more nervous than any other activity.
5		Whenever I study English writing,I get nervous.
6	Anxiety toward evaluation	I am afraid of my writing being evaluated.
7		I feel worried if I know my writing will be evaluated.
8		I am afraid when I hand in my English writing.
9		I don't like to have my friends read my writing.
10		I am afraid of having my teacher correct my writing.
11	Anxiety toward the value of writing	English writing classes seem to be a waste of time.
12		I am worried about whether learning English writing is useful for me.
13		Learning English writing is not important for me.
14	Interest in writing	I don't like English writing classes.
15		I don't like to do English writing.
16	Anxiety toward confidence	I don't have confidence in English writing.
17		I don't have confidence in getting a good grade in English writing.
18		It is difficult to get a good grade in English writing.
19		I don't think I will be good at English writing.
20		I feel uneasy when I cannot understand feedback from the teacher.
21		I feel worried about whether or not my writing ability has improved.
22	Anxiety while engaged in writing activities	I am afraid about whether or not I write English sentences correctly.
23		I am afraid about whether or not I write what I want to express.
24		I am afraid about whether or not my writing is native-like.
25		I am afraid about whether or not my writing is coherent.
26		I am afraid about whether or not the structure of my writing is appropriate.
27		I am afraid about whether or not I make use of my knowledge of English writing.

28	Anxiety while engaged in writing activities	I am afraid about whether or not readers can understand my writing.
29		I feel uneasy when I cannot write English sentences well.
30		I feel uneasy even if I reread my writing many times.

## Appendix 2: A Questionnaire of the Use of Self-Regulated Learning Strategies

1	Self-efficacy	I study English writing well.
2		I can keep studying English writing.
3		I am good at English writing.
4		I can get a good score in English writing.
5	Use of cognitive strategies	I use a notebook and a textbook when I study English writing.
6		I remember advice from a teacher when I write English sentences.
7		I use easier expressions when I can't write difficult ones.
8		I try to understand what a teacher says even if it is difficult.
9		I try to remember as much knowledge as possible.
10		I write what I study in class in a notebook at home.
11		I do exercises in English writing at home.
12		I answer exercises in English writing to the end even if it is difficult
13		I memorize important points repeatedly.
14		I summarize important points to understand it.
15		I rewrite many times when I write English sentences.
16		I try not to make the same errors.
17		I make use of what I learned when I write English sentences.
18		I make a connection with what I know when I write English sentences.
19	Intrinsic motivation	Learning English writing is important.
20		Studying English writing is useful for my future.
21		English writing is interesting.
22		I want to study English writing more.
23	Use of meta-cognitive strategies	I set a goal before English writing.
24		I make an outline before starting to write English sentences.

25	Use of meta-cognitive strategies	I check whether sentences are correct or not.
26		I try not to make errors when I write English sentences.
27		I check English sentences in terms of grammar and vocabulary.
28		I check whether I write what I want to express or not.
29		I check whether English sentences are semantically consistent or not.
30		I check whether the structure of English sentences is correct or not.
31		I realize my weak points.
32		I self-evaluate my English writing.

### Appendix 3: Self-Regulated Learning Strategies Instructed in this Study

1	To make a few writing goals beforehand
2	To make a plan and study beforehand, checking the progress of writing
3	To self-evaluate my writing
4	To make use of reflection in order not to make the same errors
5	To have confidence in what I do well
6	To think of an outline and develop ideas beforehand
7	To think of allotting time to my writing
8	To reread and rewrite my writing repeatedly during the writing activity
9	To check errors in terms of vocabulary and grammar
10	To check the structure and coherence
11	To know where I tend to make errors
12	To know the reasons why I cannot write well
13	To make use of knowledge I already have
14	To devise a solution when I cannot work on writing
15	To follow instruction from the English teacher
16	To be conscious of my writing improving

#### Appendix 4: Items in Self-Evaluation Sheet

1	I made goals and studied for the next writing assignment.
2	I planned and studied for the next writing assignment.
3	I studied proactively.
4	I checked my progress as I was studying.
5	I studied to get a good score.
6	I thought English writing was useful for me.
7	I looked forward to the next writing assignment.
8	I looked forward to being evaluated.
9	I felt my writing ability improved enough to get a good score.
10	I wrote a paragraph in class with confidence.
11	I thought of an outline and allotted time to my writing.
12	I reread and rewrote my writing repeatedly.
13	I made use of reflection in order not to make the same errors.
14	I studied, making use of teacher's advice and the textbook.
15	I asked my friends and teacher questions.
16	I studied to overcome my weak points.
17	I tried not to be uneasy.
18	I studied checking what I had already learned.

# The Effects of Instruction in Self-Regulated Learning Strategies on English Writing Anxiety

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## Abstract

This study investigated the effects of instruction in self-regulated learning strategies on English writing anxiety in Japanese university students. As a result of the analysis of the questionnaire about English writing anxiety, there was a significant difference between the pre-questionnaire and the post-questionnaire ( $t=3.11, p<.01$ ). Moreover, regarding the analysis of each category of the questionnaire, there were significant differences in Interest in writing ( $t=2.68, p<.01$ ), Anxiety toward confidence ( $t=3.32, p<.01$ ), and Anxiety during writing activities ( $t=3.09, p<.01$ ), while there were no differences in Anxiety toward writing activities, Anxiety toward the evaluation of writing, and Anxiety toward the value of writing. In addition, free written reflection statements showed that a main cause of writing anxiety was derived from lack of basic knowledge of English grammar and vocabulary. This shows that it is important to instruct basics of English grammar and vocabulary in order to reduce writing anxiety. From these aspects of analysis, it could be said that instruction in self-regulated learning strategies is partially effective in reducing the English writing anxiety of Japanese university students.