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Writing Anxiety Among Japanese First-Year University Students*

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This study aims to analyse how Japanese first-year university students' writing anxiety in academic writing classes changed over nine months. A total of 102 Japanese first-year university students participated in an academic writing class. Two assessors evaluated the students' compositions, using the same writing assessment rubric. The students were divided into three groups—low, middle, and high proficiency groups—based on the results of a placement test before entering university. The students also completed open-ended questionnaires and the Second Language Writing Anxiety Inventory (SLWAI). Multivariate analysis of covariance was conducted to examine the difference in SLWAI scores for the first, middle, and final writing tests and among low, middle, and high proficiency groups. The results showed that the students in the high proficiency group had different writing anxiety tendencies. It was found that somatic anxiety in students in the higher-level English proficiency group decreased, and that cognitive anxiety was reduced for the students in all proficiency groups. On the other hand, avoidance behaviour anxiety was not decreased. The results from the questionnaire showed that writing anxiety might be related to English proficiency, because the ideas about academic writing varied among the different proficiency groups.

Keywords: writing anxiety, SLWAI, first-year university students, academic writing

1 Introduction

First-year university students need to develop logical thinking and high reasoning abilities to enhance their academic skills and knowledge for their major in Japanese university. English education for freshmen should focus on academic writing in English, because the knowledge gained in class is expected to be reconstructed through writing and thinking across the curriculum in Japanese university. However, it is observed that some Japanese students are anxious about writing in English despite the recommendation of

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an increased emphasis on academic English, particularly writing instruction and critical thinking, by the Ministry of Education, Cultures, Sports, Science and Technology (MEXT, 2012). Two factors are assumed to underlie the writing anxiety of the Japanese first-year university students: fewer opportunities to write in English in senior high school education and unpreparedness for academic writing because of a curriculum gap between high school and university.

Regarding English writing class in high school, Japanese high school students have English writing classes less frequently than other classes such as reading and listening (MEXT, 2018). According to the national survey conducted by the MEXT (2012), more than 20 per cent of Japanese English high school teachers said that their writing class did not include writing. Instead, line-by-line Japanese-English translation exercises and grammatical drills were carried out. Hirose (2003, p. 184) also stated that L2 writing instruction in high school is oriented "towards translation from L1 to L2 at sentence level". It was reported that only 20 per cent of teachers included essay writing in English writing class. One reason for the aversion to teaching English writing is that class sizes of between 31 and 40 students make it difficult for teachers to organize English writing classes (Benesse Educational Research and Development, 2022; MEXT, 2012).

Students' unpreparedness for academic writing before entering university is caused by the lack of instruction in expository and argumentative writing even in the L1 class in Japanese high school. Instead, emotive free writing is traditionally focused on in Japanese high school. Japanese high school students have most writing experience in expressive writing, such as writing about their personal impressions and journals. According to the survey (Mulvey, 2016), only 10 per cent of the university students received instruction on thesis statements, paragraphs, and the structure of writing (introduction and conclusion) in high school. With respect to instruction in argumentative writing, there was no report that students have experienced this in high school.

Yet academic writing class in university asks students to write in English using logical thinking and high reasoning in spite of the curriculum gap between high school and university. Such an educational environment might influence their writing anxiety, and it is natural for students to feel anxiety in terms of English academic writing class in university. Therefore, it is meaningful to analyse freshmen's writing anxiety, especially since an academic writing class might be new to these students. Moreover, the writing anxiety of Japanese university freshmen has not yet been analysed, so it is important to investigate it before starting an academic writing class in order to improve students' writing skills and analyse changes in writing anxiety through the first year. An analysis of writing anxiety will lead to a solution to enhance students' writing ability and help teachers understand how the writing class might affect a change in writing anxiety. Therefore, the current study focuses on changes in writing anxiety among first-year university students

between April and December 2021, the latter being the ninth month of studying academic writing.

2 Literature Review

2.1 Writing anxiety

It might be common for first-year university students to feel anxiety (Baez, 2005), especially writing anxiety, because they are expected to write academically in university. It has been stated that writing anxiety has multidimensional aspects (Cheng et al., 1999; Daly & Miller, 1975), such as "dispositional attitudes existing over time and context, and situational attitudes specific to particular tasks" (Riffe & Stacks, 1992, p. 40). According to Faigley et al. (1981), the detrimental effect of writing apprehension tends to be apparent when writers need to disclose personal feelings and experiences in relation to narrative-descriptive topics.

Writing anxiety is considered to originate from early experiences based on avoidance of writing, revising, and completing writing tasks, and Barwick (1995) categorized writing anxiety into three categories: non-starters, non-completers, and non-exhibitors. Non-starters tend to avoid writing anxiety by rejecting revealing their ideas. Non-completers are considered to have anxiety related to rebellion against criticism. Non-exhibitors might compensate for anxiety by separating writing activity and their inability to write.

Zhang (2011) carried out a study to find the cause of writing anxiety among university students and found eight causes: linguistic difficulties, lack of topical knowledge, insufficient writing practice, fear of negative evaluation, low self-confidence, insufficient writing technique, fear of tests, and lack of effective feedback. Cheng (2004) developed the Second Language Writing Anxiety Inventory (SLWAI) to measure writing anxiety among second language learners in terms of human behaviours and academic writing performance. Cheng's (2004) construct consisted of three subscales based on the results of factor analysis and validity study: cognitive anxiety, somatic anxiety, and avoidance behaviour anxiety.

Cheng (2002) and Huerta et al. (2017) discussed the linear correlation between students' anxiety and writing performance, stating that a higher level of anxiety among students might lead to a worse writing performance. Cheng (2004) assumed that students' writing anxiety might be caused by a lack of confidence in their writing ability and worries about others' evaluation of their writing. However, there have been few empirical studies suggesting a way to reduce students' writing anxiety (Huerta et al., 2017). The majority of research into foreign language anxiety has focused on its relationship with speaking skills (Fremouw & Breitenstein, 1990; Horwitz, 2001; Kim, 2000; Vogely, 1998). Additionally, there have been few studies focusing on second or foreign

language writing anxiety, in contrast to the wealth of studies on L1 writing anxiety, especially among native speakers of English in the United States (Cheng, 2002). Previous studies focusing on L1 writing anxiety have highlighted two effects of L1 writing anxiety: (1) distress related to writing; and (2) a profound aversion to the writing process. Due to the shortage of L2 writing anxiety scale, the Dally-Miller Writing Apprehension Test questionnaire (Daly & Miller, 1975), originally developed for L1 writing anxiety, has been widely accepted for the study of L2 writing anxiety, despite the conflicting results (McKain, 1991). Therefore, several studies and inventories have been devised to develop a scale for L2 writing anxiety based on the WAT.

2.2 The Second Language Writing Anxiety Inventory (SLWAI)

This study adopts Cheng's (2004) categorization of the SLWAI because it aims to examine EFL learners' attitudes, beliefs, and anxious feelings towards English writing. Furthermore, the SLWAI was developed to assess the level of anxiety that students feel regarding second language writing by analysing data from university students.

The SLWAI was carefully developed following the three steps: (1) 65 English foreign language learners' reports of L2 writing anxiety were collected to produce an initial store of scale items; (2) a pilot test was employed on the initial items to build a preliminary version of the L2 writing anxiety scale for further refinement and evaluation in the final study; (3) exploratory factor analysis was carried out to check the reliability and validity of the final SLWAI. The final version presented higher correlation between the language skill-specific anxiety scale and writing achievement.

The SLWAI comprises 22 items that constitute the three qualities as mentioned above: cognitive anxiety, somatic anxiety, and avoidance behaviour anxiety. Cognitive anxiety means negative expectations, or fear or worry about negative evaluation. Somatic anxiety deals with perception of the physiological effects of the experience of apprehension, such as nervousness and tension. Avoidance behaviour anxiety is the demonstration of avoidance of second language writing. The SLWAI adopted a Likert-type response format composed of a five-point response scale; certain items were reverse scored. To be specific, the SLWAI has 15 negatively worded statements and seven positively worded statements. The scale of negatively worded items is reversed so that "strongly agree" takes 1 point and "strongly disagree" takes 5 points; on the other hand, positively worded items range from "strongly agree" taking 5 points to "strongly disagree" taking 1 point. The total score of the SLWAI indicates the level of writing anxiety, where the higher the score on the subscales, the greater the writing anxiety.

The SLWAI has been implemented in previous studies to measure the level of writing anxiety. It has been reported that cognitive anxiety tends to be

the dominant type of writing anxiety for L2 learners, especially university students (Jebreil et al., 2015; Rabadi & Rabadi, 2020; Syarifudin, 2020; Zhang, 2011). In contrast, it is stated that the most common type of writing anxiety among Japanese L2 learners is avoidance behaviour anxiety (Oi, 2021), yet it has not been elucidated why Japanese L2 learners present stronger avoidance behaviour anxiety. Therefore, it is meaningful to investigate how the type of writing anxiety might change while learning academic writing.

The SLWAI is considered to be appropriate to assess Japanese first-year university students' writing anxiety because it has well-established reliability and validity in the previous studies (Kurmizi & Kurmizi, 2015). The current study also aimed to enhance students' confidence and reduce writing anxiety by proposing the following research questions.

1. How does the writing anxiety of first-year university students change after taking academic writing class for nine months?

2. How is the change of writing anxiety mediated by their English proficiency?

3 Methodology

The study adopted a convergent mixed-methods research design, making up for the weaknesses of quantitative and qualitative methods by integrating quantitative and qualitative data in order to determine the change in writing anxiety among the first-year university students and how to decrease writing anxiety.

3.1 Participants

Study participants comprised a total of 102 Japanese first-year university students aged 18 to 19 years, belonging to the economics (20 students), law (30 students), Japanese literature (30 students), and English (22 students) departments of the same university. The students were composed of 56 male and 46 female students. Freshmen in different majors enrolled in the writing class were chosen in order to include students from different academic backgrounds. They took a 90-minute academic writing class once a week for nine months, delivered by the same instructor and using the same textbook. Before entering university, they took a placement test to establish their level of English. They were divided into three groups based on the results of the placement test: high (22 students), mid (50 students), and low (30 students). Two assessors, who were both experienced Japanese English teachers, evaluated the students' compositions using the same assessment rubric, which comprised four components: (1) task fulfilment; (2) structure and coherence; (3) grammatical accuracy; and (4) language use. Five points were available for each, totalling a possible 20 points. One assessor (Rater A) is the author who

had 33 years teaching experience, while the other (Rater B) had 22 years teaching experience. The two teachers' assessments showed a high correlation coefficient in three writing tests ($r = .80$, $p < .05$).

3.2 Procedure

The academic writing classes were conducted following the same syllabus and the participants were given writing tests three times to obtain data: (1) before the experiment; (2) five months later; and (3) nine months later (Table 1). Students were asked three times to take a 20-minute writing test of about 300 words without using a dictionary (Table 1). Just after each writing test, they were asked to answer the SLWAI. Alongside the final test, students were asked to reply to an open-ended questionnaire that had two questions asking what was good about learning academic writing and what were the difficulties in learning academic writing. The writing tests, the SLWAI, and the open-ended questionnaire were given to the students in class.

Table 1. Procedure of the Research

Time	Writing tests (prompts)	Syllabus	Questionnaire/ SLWAI
Pre-experiment	Pre-test (Compare two countries in terms of similarities)	Descriptive paragraph Classification	SLWAI
Month 5	Mid-test (Write causes of the tendency to marry later)	Narrative paragraph Cause & effect	SLWAI
Month 9	Final test (Do you agree or disagree on death penalty? Why?)	Argumentative paragraph	Open-ended questionnaire SLWAI

The SLWAI descriptors were translated into Japanese by the researcher (rater A) and back translated by another Japanese English teacher (rater B). Also, university students who were not participating in the study were asked to check the descriptors in terms of intelligibility. The present study adopted a four-choice response scale to allow students to reply easily, because students were accustomed to replying on a four-point scale in various kinds of survey, such as national or administrative surveys before entering university. Additionally, exploratory factor analysis was employed to examine the validity of the Japanese translated SLWAI for Japanese students (Oi, 2021). It presented three correlated factors—that is, somatic, cognitive, and avoidance anxieties—and it was decided to employ the SLWAI in the study.

3.3 Data analysis

In terms of quantitative analysis, simple descriptive statistics were used to determine the level of writing anxiety by comparing the differences between the pre-, mid-, and final SLWAI test scores, and differences between the low, middle, and high proficiency groups according to the results of the placement test before entrance into university. Subsequently, multivariate analysis of covariance (MANCOVA) was employed to analyse the change in writing anxiety over the three writing tests. MANCOVA is a useful method for comparing two or three groups when there are covariates and two or more dependent and independent variables.

Regarding qualitative analysis, text mining was conducted to investigate the main aspects of students' attitudes towards academic writing. Text mining aims at qualitative analysis to mine hidden data. It is beneficial to obtain new knowledge and information in an exploratory study (Feldman & Sanger, 2006). The students' responses to the open-ended questions collected in the post-test were analysed manually, counting the frequency with which terms and phrases appeared based on term extraction (Qiu et al., 2011). Term extraction aims to identify from students' responses those expressions that represent academic writing. Term extraction was employed in seven steps: (1) data review; (2) frequent feature identification; (3) decision on frequent features; (4) opinion word extraction to determine adjective polarities such as 'good', 'excellent', 'poor', and 'bad', which are used to indicate positive or negative sentiments; (5) orientation identification of adjectives by focusing on conjunctions such as 'and' and 'or' in a set of adjectives; (6) decision on opinion words; and (7) decision on opinion sentence orientation in terms of syntactic relations. Term extraction was employed by the researcher and another Japanese English teacher (rater B), who evaluated students' English compositions.

4 Findings of the Quantitative Analysis

4.1 Results of the writing test and SLWAI

Table 2 presents the average scores among the three groups over the three writing tests. With respect to the writing test scores, the high proficiency group in the placement test presented the highest average scores in the first and final tests, while the average scores of the middle proficiency group were lower than those of the low proficiency group in both the middle and final tests. All of the groups improved their average scores compared to the pre-test. Also, the standard deviations in all groups decreased compared to the pre-test. Therefore, according to the results of the descriptive statistics, all of the groups increased

their writing tests scores and the differences between students in each group became smaller.

Table 2. Average Writing Test Scores for the Three Groups

	High		Mid		Low	
	Mean	SD	Mean	SD	Mean	SD
Pre-	15.69	2.40	15.33	1.80	15.13	2.17
Mid	17.36	1.55	17.00	2.06	17.88	1.66
Final	18.09	1.23	17.40	1.23	17.57	1.84

Regarding the results of the SLWAI—that is, writing anxiety—the high proficiency group presented the lowest level of all subscale scores of the three groups (Table 3). With respect to somatic anxiety, all three groups showed medium anxiety on the first writing test, but the low proficiency group did not decrease their level of somatic anxiety, even though the other two groups did. Regarding avoidance behaviour, the middle and low proficiency groups showed a medium level of avoidance over the three writing tests. On the other hand, the high proficiency group indicated a low level of avoidance during all three tests. In respect of cognitive anxiety, all three groups tended to show medium cognitive anxiety over all writing tests.

Table 3. Average SLWAI Scores for the Three Groups

		High		Mid		Low	
		Mean	SD	Mean	SD	Mean	SD
Somatic	Pre	2.13	0.72	2.35	0.71	2.37	0.67
	Mid	1.91	0.72	2.11	0.90	2.49	1.00
	Final	1.66	0.64	1.94	0.91	2.37	1.01
Avoidance	Pre	1.86	0.27	2.00	0.54	2.16	0.48
	Mid	1.82	0.47	2.01	0.81	2.13	0.72
	Final	1.82	0.38	2.09	0.84	2.13	0.70
Cognitive	Pre	2.25	0.39	2.45	0.58	2.42	0.54
	Mid	2.24	0.54	2.34	0.93	2.25	0.74
	Final	2.09	0.46	2.15	0.89	2.21	0.74

Note. Higher scores indicate higher anxiety in the SLWAI.

4.2 MANCOVA results

The following three steps were undertaken as preliminary assumption checks: (1) identification of outliers; (2) checks for normality, absence of multicollinearity, and homogeneity of variance concerning the dependent

variables; and (3) additional assumption checks, including the covariates. According to Tabachnick and Fidell's (2014) criterion, an absolute *z* score value for univariate outliers should be higher than 3.29, $p < 0.01$. The data in the present study indicated no outliers for the four dependent variables (mean somatic anxiety, avoidance behaviour, cognitive anxiety, and writing test scores on the post-test). Multivariate outliers for each of the dependent variables were also examined, and two cases were excluded. The remaining 100 cases were used for subsequent analyses. Normality, skewness, and kurtosis values gained for each dependent variable indicated univariate normality of the score distributions of the dependent variables. Box's test of equality of variance-covariance matrices did not indicate significance, the matrices being equal among the low, middle, and high proficiency groups. Multicollinearity was examined by testing Pearson correlations among the dependent variables. It was found that one of the dependent variables was highly correlated with another. As an additional assumption check, scatterplots were tested to check the linearity of the dependent variables and covariates. No tendencies towards curvilinearity were found. Testing the homogeneity of the regression slopes revealed that there was no significant interaction between the covariates and the grouping variables (different English proficiency groups). Hence, all assumptions for employing the MANCOVA were satisfied and the MANCOVA was employed (Table 4).

Table 4. Univariate Analysis Results for the Subscale Scores (MANCOVA)

Source	*DV*	*SS*	*df*	*MS*	*F*	*P*	η_p^2
			Between subjects				
Groups	Somatic	4.084	1.401	2.916	7.353	0.003*	0.069
	Avoidance	0.084	1.676	0.050	0.661	0.492	0.007
	Cognitive	2.240	1.730	1.295	13.188	0.000*	0.118
Error	Somatic	54.982	138.652	0.397			
	Avoidance	12.541	165.912	0.076			
	Cognitive	16.815	171.241	0.098			
			Within subjects				
Occasions	Somatic	4.023	1	4.023	11.156	0.001*	0.101
	Avoidance	0.018	1	0.018	0.202	0.654	0.002
	Cognitive	2.164	1	2.164	23.814	0.000*	0.194
Groups x Occasions	Somatic	4.734	2	2.367	6.563	0.002*	0.117
	Avoidance	0.255	2	0.127	1.469	0.235	0.029
	Cognitive	0.018	2	0.009	0.101	0.904	0.002
Error	Somatic	35.703	99	0.361			
	Avoidance	8.575	99	0.087			
	Cognitive	8.997	99	0.091			

*$p < .05$

A one-way MANCOVA was carried out to examine differences between the pre-, mid-, and final SLWAI for the three different English proficiency groups in the first-year university students' three subscales of writing anxiety. Three dependent variables (somatic, avoidance, and cognitive writing anxiety) and the independent variable with three different groups (low, middle, and high proficiency groups following the results of the placement test) were used for the MANCOVA. The covariates were the occasions of the three pre-, mid-, and final writing tests. The results of Pillai's trace showed a main effect of group (F [1, 99] = 6.911, p = 0.000, η_p^2 = 0.222). There was also a main effect of interaction between occasion (pre-, mid-, and final SLWAI) and group (F [2, 98] = 2.839, p = 0.000, η_p^2 = 0.196).

Accordingly, the univariate test results were examined to investigate the effects of the within-subject variables on the three dependent variables. As Table 4 shows, there was a main effect of occasion (pre-, mid-, and final SLWAI) on somatic anxiety with a medium effect size (F [1, 99] = 7.353, p = 0.003, η_p^2 = 0.069). There was also a main effect of occasion on cognitive anxiety with a medium effect size (F [1, 99] = 13.188, p = 0.000, η_p^2 = 0.118). Additionally, there was a main effect of group (high, middle, and low proficiency groups) on both somatic and cognitive anxiety, but avoidance behaviour anxiety did not present any significance in relation to occasion or group.

According to the statistically significant results of multiple comparison, the first occasion (pre-SLWAI) of somatic anxiety showed differences from the middle (mid-SLWAI) and final occasions (final SLWAI), but the somatic anxiety on the middle and final occasions did not present statistical significance between them. A statistically significant difference in cognitive anxiety was recognized between the pre- and final occasions, but there was no statistical difference between the middle and final occasions. The results of group factors showed a statistical difference in somatic anxiety between the high proficiency group and the low proficiency group, but not the middle level group. Furthermore, the somatic anxiety of the middle level group was not statistically different from that of the low proficiency group. No statistically significant difference in cognitive anxiety was found among the three groups.

There were interaction effects for somatic anxiety between groups and occasions, with a medium effect size (F [2, 98] = 6.563, p = 0.002, η_p^2 = 0.117). To be specific, the high proficiency group and middle proficiency group decreased their somatic anxiety, but not the low proficiency group. It was also found that the high proficiency students reduced their somatic anxiety remarkably (Table 4). Cognitive anxiety was decreased in all groups. In particular, cognitive anxiety fell in the high proficiency group over the course of the academic writing class.

As stated above, somatic and cognitive anxiety decreased after taking the academic writing class. There was a remarkable difference in somatic anxiety between the high and low proficiency groups. With respect to cognitive

anxiety, all groups were able to reduce their cognitive anxiety. In short, somatic anxiety in students in the higher-level English proficiency group decreased after taking the academic writing class. It was also found that cognitive anxiety was reduced for all students regardless of their English proficiency.

5 Findings of Qualitative Analysis

Term extraction (Qiu et al., 2011) was employed to analyse the students' replies to the open-ended questionnaire. Term extraction enables us to identify from students' responses those expressions related to their experiences in academic writing class. The following three procedures were carried out: (1) participants' ideas about the academic writing class were extracted from open-ended questions, using opinion mining or sentiment analysis (Qiu et al., 2011); (2) the extracts were read by rater B and incoherence between raters was discussed to find corroboration in the results; (3) opinion words were identified, such as "good", "better", "bad", and "worse", used to indicate positive or negative emotions, in order to classify sentiments and summarize the information discovered about academic writing (Qiu et al., 2011). Additionally, the identified opinion words were syntactically analysed to see the relations between them in the context around the opinion words.

With respect to good points about studying academic writing (Tables 5, 6, and 7), it was found that high ranked comments varied among the three groups. In particular, students in the high proficiency group most frequently reported that they liked writing English compositions. Furthermore, they commented that they became accustomed to expressing their opinions in English and that they learned how to express well what they wanted to say. Additionally, they became confident about writing in English. It is considered that academic writing classes helped students to gain skills to write in English, which might lead to confidence in writing.

The middle and low proficiency groups had common highest ranked items. The students in both groups commented on the benefits of learning logical and effective writing structure, and vocabulary and expressions in writing. Compared to the students in the middle proficiency group, the comments of the students in the low proficiency group tended to vary. The students in the middle proficiency group tended to be more conscious of their present English proficiency through learning specific English writing knowledge and attitudes, such as coherence and reader-friendliness. On the other hand, the students in the low proficiency group more frequently presented comments related to learner affect, such as motivation and pleasure. This is because the students in the low proficiency group had various challenges in terms of their English ability, and so the benefits of academic writing class were more varied among them.

Table 5. Open-Ended Responses of Students in the High Proficiency Group: What was Good about Learning Academic Writing?

Rank	Categories	Translation of open-ended responses	High proficiency group
1	Affective Changes	I came to like writing English compositions	15.38% (12)
2	Affective Changes	I got accustomed to expressing my opinion in English	7.69% (6)
3	Improvement of English	I learned English expressions in order to describe what I want to say	7.69% (6)
4	Affective Changes	I became confident in writing English	7.69% (6)
5	Improvement of English	I learned logical and effective structure of writing	5.12% (4)
6	Improvement of English	I learned coherent style and structure of writing	5.12% (4)
7	Improvement of English	I increased the size of my vocabulary	5.12% (4)
8	Improvement of English	I learned how to cite references in writing	5.12% (4)
9	Learning attitudes	I was motivated to express what I want to say using my present vocabulary	5.12% (4)
10	Learning attitudes	I became careful about the accuracy of my grammar and spelling	5.12% (4)
11	Learning attitudes	I found my writing style through thinking by myself	5.12% (4)
12	Affective Changes	I was positively motivated to write English compositions	5.12% (4)
13	Affective Changes	I was motivated to learn English	5.12% (4)
14	Improvement of English	I increased my scores in English proficiency tests such as EIKEN	2.56% (2)
15	Learning attitudes	I decided to become a reader-friendly writer	2.56% (2)
16	Learning attitudes	I became conscious of my present English proficiency level	2.56% (2)
17	Improvement of English	I learned various kinds of writing style	2.56% (2)
18	Improvement of English	I learned how to link sentences naturally	2.56% (2)
19	Improvement of study	It had a good effect on my Japanese writing because I learned structure and how to write reasons	2.56% (2)
20	Affective Changes	I was happy to study English writing	2.56% (2)
21	Improvement of English	I learned vocabulary and English expressions	2.56% (2)
Total			(78)

Note. Substantial frequency within parentheses.

Table 6. Open-Ended Responses of Students in the Middle Proficiency Group: What was Good about Learning Academic Writing?

Rank	Categories	Translation of open-ended responses	High proficiency group
1	Improvement of English	I learned logical and effective structure of writing	32.14% (18)
2	Improvement of English	I learned vocabulary and English expressions	32.14% (18)
3	Affective Changes	I got accustomed to expressing my opinion in English	7.14% (4)
4	Improvement of English	I increased my scores in English proficiency tests such as EIKEN	7.14% (4)
5	Affective Changes	I came to like writing English compositions	3.57% (2)
6	Improvement of English	I learned coherent style and structure of writing	3.57% (2)
7	Improvement of English	I increased the size of my vocabulary	3.57% (2)
8	Improvement of English	I learned how to cite references in writing	3.57% (2)
9	Learning attitudes	I decided to become a reader-friendly writer	3.57% (2)
10	Learning attitudes	I became conscious of my present English proficiency level	3.57% (2)
Total			(56)

Note. Substantial frequency within parentheses.

Table 7. Open-Ended Responses of Students in the Low Proficiency Group: What was Good about Learning Academic Writing?

Rank	Categories	Translation of open-ended responses	High proficiency group
1	Improvement of English	I learned logical and effective structure of writing	19.78% (36)
2	Improvement of English	I learned vocabulary and English expressions	18.68% (34)
3	Affective Changes	I came to like writing English compositions	8.79% (16)
4	Improvement of English	I learned English expressions to describe what I want to say	6.59% (12)
5	Affective Changes	I got accustomed to expressing my opinion in English	5.49% (10)
6	Affective Changes	I became confident in writing English	4.39% (8)
7	Improvement of English	I learned coherent style and structure of writing	4.39% (8)
8	Improvement of English	I increased the size of my vocabulary	3.29% (6)
9	Improvement of English	I increased my scores in English proficiency tests such as EIKEN	3.29% (6)
10	Improvement of English	I learned how to cite references in writing	3.29% (6)
11	Learning attitudes	I decided to become a reader-friendly writer	3.29% (6)
12	Learning attitudes	I was motivated to express what I want to say using my present vocabulary	2.19% (4)
13	Learning attitudes	I became careful about the accuracy of my grammar and spelling	2.19% (4)
14	Learning attitudes	I became conscious of my present English proficiency level	2.19% (4)
15	Learning attitudes	I found my writing style through thinking by myself	2.19% (4)
16	Affective Changes	I was motivated to write English compositions positively	2.19% (4)
17	Affective Changes	I was motivated to learn English	2.19% (4)
18	Improvement of English	I learned various kinds of writing style	2.19% (4)
19	Improvement of English	I learned how to link sentences naturally	2.19% (4)
20	Improvement of English	It had a good effect on my Japanese writing because I learned structure and how to write reasons	2.19% (4)
21	Affective Changes	I was happy to study English writing	2.19% (4)
22	Affective Changes	I was pleased to receive good comments about my writing from others	1.09% (2)
	Total		(182)

Note. Substantial frequency within parentheses.

Regarding the difficulties encountered in the academic writing class (Tables 8, 9, 10), students in the high proficiency group presented different features from the other two groups. For instance, the students in the high proficiency group tended to comment on the gap between their ideal writing skills and their present ability. They felt irritated by the difficulty of expressing what they wanted to write because they forgot appropriate words and expressions. Additionally, they felt worried about the number of words to be written in a task. They seemed to be pressured by the task because they thought the level of task was higher than their ability.

Meanwhile, the students in the middle and low proficiency groups most frequently reported a shortage of vocabulary. Similar to the comments on the good points of academic writing, the comments made by the low proficiency group varied, but about 30 per cent of the students indicated their lack of vocabulary as an issue. Therefore, it is considered that students in the middle and low proficiency groups need to build their lexical ability to resolve their difficulties. A shortage of vocabulary made it difficult for them to express what they wanted to write.

Also, students commented on the difficulty of finding linguistic mistakes by themselves and of understanding the connotations and implications behind English expressions. Additionally, students pointed out the difficulty of summarizing their ideas in English, especially about topics they were not interested in. As another difficulty which was not ranked, a student commented on a feeling of awkwardness or aversion to their work being read by others, because the writing content was sometimes related to personal matters and they worried about being evaluated by others and felt threatened by their peers.

Table 8. Open-Ended Responses of Students in the High Proficiency Group: What were the Difficulties in Learning Academic Writing?

Rank	Categories	Translation of open-ended responses	High proficiency group
1	Tension associated with English	I felt irritated by the difficulty of expressing what I wanted to write because I forgot appropriate words and expressions	26.66% (8)
2	Task pressure	I felt worried about the number of words to be written in a task because it seemed difficult to write so many words	26.66% (8)
3	Tension associated with English	I had difficulty expressing myself in English	13.33% (4)
4	Tension associated with English	I had a shortage of vocabulary	13.33% (4)
5	Tension associated with English	I had difficulty summarizing my ideas	6.66% (2)
6	Tension associated with English	I felt irritated writing sentences that are too simple	6.66% (2)
7	Tension associated with English	I had difficulty understanding the connotations and implications of vocabulary and expressions	6.66% (2)
Total			(30)

Note. Substantial frequency within parentheses.

Table 9. Open-Ended Responses of Students in the Middle Proficiency Group: What were the Difficulties in Learning Academic Writing?

Rank	Categories	Translation of open-ended responses	High proficiency group
1	Tension associated with English	I had a shortage of vocabulary	45.45% (10)
2	Tension associated with English	I felt irritated by the difficulty of expressing what I wanted to write because I forgot appropriate words and expressions	18.18% (4)
3	Tension associated with English	I felt worried about grammatical errors	18.18% (4)
4	Tension associated with English	I had difficulty expressing myself in English	9.0% (2)
5	Tension associated with English	I had difficulty writing a concise paragraph which is easy to understand	9.0% (2)
Total			(22)

Note. Substantial frequency within parentheses.

Table 10. Open-Ended Responses of Students in the Low Proficiency Group: What were the Difficulties in Learning Academic Writing?

Rank	Categories	Translation of open-ended responses	High proficiency group
1	Tension associated with English	I had a shortage of vocabulary	29.16% (14)
2	Tension associated with English	I had difficulty summarizing my ideas	12.5% (6)
3	Task pressure	I had difficulty writing within a time limit	12.5% (6)
4	Task pressure	I felt worried about the number of words to be written in a task because it seemed difficult to write so many words	8.33% (4)
5	Tension associated with English	I had difficulty expressing myself in English	8.33% (4)
6	Tension associated with English	I had difficulty writing a concise paragraph which is easy to understand	4.16% (2)
7	Tension associated with English	I was worried about grammatical errors	4.16% (2)
8	Tension associated with English	I felt irritated by the difficulty of expressing what I wanted to write because I forgot appropriate words and expressions	4.16% (2)
9	Tension associated with English	I could not understand or find the mistakes in my writing	4.16% (2)
10	Task pressure	I had difficulty writing my opinions or ideas on a topic that I am not interested in	4.16% (2)
11	Tension associated with English	I am not good at English	4.16% (2)
12	Task pressure	I had difficulty becoming a reader-friendly writer	4.16% (2)
Total			(48)

Note. Substantial frequency within parentheses.

There was lower frequency of difficulties than of good points. In particular, students in the low proficiency group commented on positives almost three times more often than they commented on negatives. The frequency of positives in the other two groups was almost double the frequency of negatives. Briefly, students more frequently made positive comments on learning academic writing than negative comments. It was found that students in the high proficiency group had different tendencies in academic writing, while the other two groups presented common features in both positive and negative aspects.

6 Discussion

6.1 How did the writing anxiety of first-year university students change after studying academic writing for nine months?

It was found that learning academic writing over nine months had some effect on writing anxiety but that English proficiency level somewhat influenced the reduction in writing anxiety. From the quantitative analysis, students in all the different proficiency groups were able to reduce their cognitive anxiety. A reduction in somatic anxiety was not only found in students belonging to the low proficiency group: the middle and high proficiency groups were also able to reduce their somatic anxiety. In particular, there was a remarkable difference in somatic anxiety between the high and low proficiency groups. Avoidance behaviour anxiety was not changed in any group during the academic writing class. Therefore, it is considered that an academic writing class over nine months might help to reduce cognitive anxiety for all groups, but not to reduce avoidance behaviour anxiety.

In terms of the results of the qualitative analysis, students in all groups more frequently reported positive comments than negative. Therefore, it is considered that the students positively accepted the academic writing class and found benefits. However, the tendencies in positive comments were different in different groups. Students in the high proficiency group tended to comment on liking writing English compositions, while students in the middle and low proficiency groups more frequently commented on the benefits of learning the logical and effective structure of writing and language use. With respect to difficulties in learning academic writing, the students directly reported the difficulty of expressing their ideas in English when under pressure to write. Students in the middle and low proficiency groups shared the same difficulty, a shortage of vocabulary.

In summary, writing anxiety among students in the high proficiency group might have reduced because they came to like writing in English. Additionally, they seemed to overcome their shortage of vocabulary to express their ideas, while they seemed to have difficulty finding the appropriate and best terms for their ideas. Like with the high proficiency group, cognitive and somatic anxiety were reduced among students in the middle proficiency group, but the high proficiency group was able to reduce writing anxiety much more than the middle proficiency group. Therefore, the students in the high proficiency group dynamically reduced their writing anxiety through the academic writing class.

Students in the middle and high proficiency groups were able to reduce two types of anxiety; however, the way of changing the anxiety level might differ for the two groups. In short, the difference in English proficiency might influence the change in somatic anxiety for the first-year university students. Students in the middle proficiency group tended still to suffer from a deficiency

in basic English knowledge, while students in higher English proficiency group were able to focus on how to express their ideas more persuasively and effectively, as well as linguistic aspects. The writing anxiety of students in the high proficiency group seemed to be influenced by their writing experience in class. On the other hand, students in the middle and low proficiency groups expressed difficulty finding appropriate vocabulary rather than discussing how to describe their ideas in an effective way. In particular, students in the low proficiency group complained about the time limit in writing tests because some of them could not complete writing tasks within the planned time. This might lead to somatic anxiety, so students in the low proficiency group could not decrease somatic anxiety in the final writing test.

The reason for all of the students being able to reduce cognitive anxiety is considered to be the development of students' consciousness of the logical structure, coherence, and reader-friendliness of writing through the instruction in academic writing, as shown by the qualitative analysis. In other words, students might learn from the academic writing class how to write logically and develop a topic in writing. The students in the present study also showed somewhat strong cognitive anxiety, but they reduced the level of cognitive anxiety after academic writing class. Academic writing class might have positive effects on the reduction of cognitive anxiety.

Conversely, no change in avoidance behaviour anxiety was found in any group, so it is considered that the academic writing class did not affect avoidance behaviour anxiety. The results of the qualitative analysis showed enjoyment of writing in English and reduced awkwardness in English writing, but we did not find a positive attitude towards extracurricular writing activities such as keeping a diary, writing emails, and taking notes in English. One reasons why avoidance behaviour anxiety did not decrease is assumed to be related to writing evaluation in class, because students generally receive evaluation for their writing task which influences the records. The current study was conducted in class, so students tended to be conscious of the scores for writing tests and the presence of a teacher. Such a writing environment might make students feel distressed or tense, causing avoidance behaviour anxiety: a different writing environment might weaken avoidance behaviour anxiety and motivate students to write in English.

6.2 How is the change of writing anxiety mediated by their English proficiency?

The qualitative analysis showed that writing anxiety might be related to English proficiency, because the ideas about academic writing varied among the different proficiency groups. Therefore, different groups should be given different guidance. Students in low proficiency group need specific and careful guidance on how to manage English writing compared to the higher-level groups. Academic writing classes in the present study used the following

process: 1) brainstorming; 2) organizing; 3) drafting; 4) revising; 5) editing; and 6) final draft. However, the low proficiency group needs more assistance to complete writing, especially in terms of language use such as the lack of vocabulary and grammatical knowledge. That is to say, students should be assisted to make up for a lack of linguistic competence. For instance, fixed expressions related to writing topics and narrative frames to help bridge the gap between the present and ideal English ability could help students in the low proficiency group to complete a writing task. This would enable them to feel a sense of achievement and reduce their writing anxiety.

Students in the middle proficiency group also need to be given special guidance to an extent, especially in linguistic aspects. However, weaknesses in the various components of writing proficiency varied among students. For instance, some students had vocabulary difficulties, while others had problems related to grammar, coherence, and time management. Therefore, it is recommended that instructors tailor their assistance according to each students' weaknesses in English writing.

Students in the high proficiency group should be guided to improve their ability to express their ideas more effectively, focusing on content, structure, and coherence, as well as delicate and complex linguistic aspects. As students in the high proficiency group are expected to develop their writing ability in a comprehensive way, it is necessary to provide them with a wider range of writing types, such as narrative, descriptive, expository, and argumentative writing. Those experiences will help the students to develop their ability to handle various kinds of writing.

Avoidance behaviour anxiety did not change in any of the groups over the course of the year. Also, students did not comment on avoiding writing in English. Instead, they mentioned pleasure in the improvement of their writing skills, such as structure, coherence, and language use. Students also mentioned difficulties expressing their ideas in English because of a shortage of their English proficiency. Therefore, it is considered that avoidance behaviour anxiety was common characteristic of the students in all groups in the present study. Furthermore, academic writing class might not influence students' individual extracurricular English writing activity, because students did not present any motivation to write in English outside of class. Therefore, it is suggested that academic writing class should have a responsibility to reduce overpressure of class from learners and encourage students to express their ideas in English with feeling relaxed. Also, students should be encouraged to find opportunities to write their ideas and findings even out of academic writing class.

7 Conclusion

This study aimed to analyse writing anxiety among Japanese first-year university students over nine months of academic writing class. Students at all three different proficiency levels indicated a similar level of writing anxiety, but this anxiety varied over the nine months. The academic writing class helped to reduce cognitive anxiety in all groups. Cheng (2004) stated that EFL learners tended to show cognitive anxiety, so the class might be effective in reducing cognitive anxiety for all students. However, somatic anxiety was not reduced among low proficiency students. Therefore, it is proposed to implement measures to help low proficiency students to write more easily without feeling nervous. As the results of the qualitative analysis showed, the lack of vocabulary and grammatical knowledge should be appropriately compensated when they write in English. Academic writing classes helped the first-year university students to learn how to write logically and coherently, and it gave them joy to write their ideas in English. However, there should also be opportunities for students to write in English on other occasions to enhance their writing outside the academic writing class.

References

Baez, T. (2005). Evidence-based practice for anxiety disorder in college mental health. *Journal of College Student Psychotherapy, 20*(1), 33-48.

Barwick, N. (1995). Pandora's box: An investigation of essay anxiety in adolescents. *Psychodynamic Counseling, 1*(4), 560-575.

Benesse Educational Research and Development. (2022). *The Results of Survey for First-Year High School Students English Study*. Retrieved from https://berd.benesse.jp/up_images/research/all4.pdf

Cheng, Y-s. (2002). Factors associated with foreign language writing anxiety. *Foreign Language Annals, 35*(6), 647-656.

Cheng, Y-s. (2004). A measure of second writing anxiety: scale development and preliminary validation. *Journal of Second Language Writing, 49*(3), 417-116.

Cheng, Y., Horwitz, E., & Schallert, E. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning, 49*(3), 417-116.

Daly, J. A., & Miller, M. D. (1975). The empirical development of an instrument of writing apprehension. *Research in the Teaching of English*, *9*(3), 242-249. Retrieved from https:// library.ncte.org/ journals/rte/issues/v9-3/20067

Faigley, L., Daly, J. A., & Witte, S. P. (1981). The role of writing apprehension in writing performance and competence. *Journal of Educational Research, 75*, 16-21.

Feldman, R., & Sanger, J. (2006). *The text mining handbook*. Cambridge University Press.

Fremouw, W. J. , & Breitenstein, J. L. (1990). Speech anxiety. In H. Leitenberg (Ed.), *Handbook of social and evaluation anxiety* (pp.455-474). Plenum Press.

Hirose, K. (2003). Comparing L1 and L2 organizational patterns in the argumentative writing of Japanese EFL Students. *Journal of Second Language Writing, 12*, 181-209.

Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics, 21*, 112-126.

Huerta, M., Goodson, P., Beigi, M., & Chlup, D. (2017). Graduate students as academic writers: Writing anxiety, self-efficacy and emotional intelligence. *Higher Education Research & Development, 36*(4), 716-729.

Jebreil, N., Azizifar, A., Gowhary, H., & Jamalinesari, A. (2015). A Study on Writing Anxiety among Iranian EFL Students. *International Journal of Applied Linguistics & English Literature, 4*(2), 68-72.

Kim, J.-H. (2000). *Foreign language listening anxiety: A study of Korean students learning English* [Unpublished doctoral dissertation]. The University of Texas. Retrieved from https://www.researchgate.net /publication/35732188_Foreign_language_listening_anxiety_a_study_of_Korean_students_learning_English

Kurmizi, Ö., & Kurmizi, G. D. (2015). An investigation of L2 learners' writing self-efficacy: Writing anxiety and its causes of at higher education in Turkey. *International Journal of Higher Education*, *4*(2), 57-66.

McKain, T. L. (1991). *Cognitive, affective, and behavioural factors in writing anxiety* [Unpublished doctoral dissertation]. Catholic University of America. Retrieved from https://www.worldcat.org/title/cognitive-affective-and-behavioral-factors-in-writing-anxiety/oclc/25196822

Ministry of Education, Culture, Sports, Science and Technology. (2012). *4. Shitsumonshi chōsa kekka (seito shitsumonshi/gakkō shitsumonshi) [Section 4. Results from the questionnaire (student questionnaire/ school questionnaire)]*. Retrieved from https://www. mext.go.jp/ a_menu/kokusai/gaikokugo/_icsFiles/afieldfile/2013/03/28/133 2393_2.pdf

Ministry of Education, Culture, Sports, Science and Technology. (2018). *Heis ei 29nenndo eigokyoiku chosa kekka [The results of fiscal 2007 sur vey of proficiency in English]*. Retrieved from https://www.mext.go. jp/component/amenu/education/detail/ics Files/afieldfile/2018/04/0 6/140346902.pdf

Mulvey, B. (2016). Writing instruction: What is being taught in Japanese high schools, why, and why it matters. *The Language Teacher, 40*(3), 3-8. Retrieved from https://jalt-publications. org/tlt

Oi, S. Y. (2021). Jiko-hyoka to tako-hyoka wa kokosei no eisakubun gakushu fuan ni donna eikyo wo ataeru noka? [How self- & peer assessment have effects on high school students' writing anxiety?]. *The Language Teacher, 45*(6), 25-31.

Qiu, G., Liu, B., Bu, J., & Chen, C. (2011). Opinion word expansion and target 296 extraction through double propagation. *Computational Linguistics, 37*(1), 9-27.

Rabadi, R. I., & Rabadi, A. D. (2020). Do medical students experience writing anxiety while learning English as a foreign language? *Psychology Research and Behavior Management, 13*, 883-893.

Riffe, D., & Stacks, D. W. (1992). Student characteristics and writing apprehension. *The Journalism Educator, 47*(2), 39-49.

Syarifudin, S. (2020). Survey on EFL students' writing anxiety: Level, types, and causes. *Eralingua: Jurnal Pendidikan Bahasa Asing dan Sastra, 4*(2), 122-132.

Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics: Pearson new international edition* (6th ed.). Pearson.

Vogely, A. J. (1998). Listening comprehension anxiety: Students' reported sources and solutions. *Foreign Language Annals, 31*, 67-80.

Zhang, H. (2011). *A study on ESL writing anxiety among Chinese English majors – causes, effects and coping strategies for ESL writing anxiety*. Kristianstad University.

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