

A Teaching Approach to Develop Basic Academic Writing Ability and Logical Thinking Skills for Japanese University Students

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Abstract

This presentation discusses an approach for teaching basic academic writing ability and logical thinking skills to Japanese university students. Through this approach, students acquire fundamental knowledge and skills of paragraph writing by engaging in pre-writing tasks of constructing outlines and discussing their ideas with peers. They receive detailed feedback and make multiple revisions. In the previous study, the authors conducted a survey with first-year students and found that more than half of the participants lacked experience in paragraph writing during high school (Kawano and Nagakura, 2017). Given this background, a series of five-lesson instruction based on the idea of process writing, with a focus on argumentative writing as its genre (Badger and White, 2000), was developed. At first, the students write an outline after discussing the prompt, “SNS (Social Media Network) is beneficial for education”, with peers and compose the first draft. Upon receiving feedback from the instructor, they revise the draft and submit the final version. This approach was implemented at a private university in Tokyo with 60 university students. Their progress was analyzed in terms of the logical flow of discussion and elaboration included in their paragraphs. The data indicate that participants improved in their holistic writing scores and enjoyed the challenging practice of logical thinking, which was revealed by the exit survey. However, there were a few students who had continual difficulty in acquiring basic skills. The paper also discusses points of improvement in the instructional module to attend a wide range of students’ writing levels.

Keywords: L2 writing instruction, logical thinking, peer/teacher feedback

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Introduction

In the present study, the author attempts to present an effective program to teach L2 writing and logical thinking skills for Japanese university science students. Recently, enhancing logical thinking skills and communicative competence have become the foci in education in Japan. According to the reform plan of the Japanese Ministry of Education, the new Course of Study aims to promote logical thinking and writing skills through well-balanced instruction of four skills of English: listening, reading, speaking and writing (MEXT, 2018). Given this current situation, it is necessary to establish an effective writing program to improve English proficiency and logical thinking skills. In order to clarify the present situation of writing instruction in Japan, Kawano and Nagakura analyzed the writing activities in MEXT approved high school textbooks and found that the textbooks need improvement in terms of showing model paragraphs and themes and topics that would encourage logical thinking and argumentative writing (Kawano & Nagakura, 2017). It was determined that the students were only given sentence-level exercises of writing and translation tasks. In addition, a survey was conducted with university first-year students, and it was found that more than half of the participants lacked experience in paragraph writing during high school. With this background in mind, a module for teaching basic academic writing ability and logical thinking skills was developed and implemented at a private Japanese university. Through this approach, students are expected to acquire fundamental knowledge and skills of paragraph writing by engaging in pre-writing tasks of constructing outlines and discussing ideas with peers. It is hoped that this study serves as a practitioner report of the module and leads to further development of a solid and rigorous writing curriculum for Japanese university students.

A Process Writing Module

A writing module is developed based upon major findings from existing studies including teaching organization explicitly, integrating peer-activities and providing focused feedback. First, the module started with basics such as teaching the structure and organization of English paragraphs and essays. In the last thirty years of research on the English writing of Japanese students, especially argumentative or opinion writing, inductive logic and a lack of logical consistency were found to be tendencies of Japanese writers (Kamimura & Oi, 1998; Hirose, 2005). Since Japanese high school students may lack experiences with paragraph writing, explicit instruction is necessary at university level. Aiming to teach how to write with clear organization and logical consistency, Kamimura and Oi (2006) conducted a-year-long explicit instructional program to help Japanese EFL students improve their metacognitive abilities necessary for producing academic writing. The program proposed an instruction approach which included knowledge of writing, as well as practice activities to internalize the concept of unity and coherence. The study also provided process-based instruction, including generation of ideas and multiple drafts writing, hence, this study became the theoretical framework of the module.

Second, a recent trend of focusing on collaborative learning in English for academic purposes (EAP) curricula (Suzuki, 2012; Wigglesworth & Storch, 2009) was considered when the module was developed. Newmann & McDonough (2015) investigated the relationship between student interactions during collaborative pre-writing activities and students' written texts in an EAP course. Tsuji (2016) explored

the influence of pre-writing peer activities of Japanese college students on their perception of learning. Eighty university students participated in pre-writing activities with peers in Japanese, and then they produced collaborative writing in English. The study found that students perceived the pre-writing activity positively. Tanaka discussed that the motivation of students plays an essential part in writing instruction, and that peer discussion promoted this motivation (2009).

Third, research of teacher feedback is an important and major field which should be taken into consideration in planning a writing curriculum. Hyland and Hyland (2006) carried out a comprehensive survey of research on feedback, discussing issues in teacher written feedback, teacher conferencing and oral feedback, peer feedback and self-evaluation, and computer-mediated feedback. Despite the large number of studies (over 200 in their survey), Hyland and Hyland concluded that there is little consensus and most of the fundamental questions remain unanswered. As for the research on Japanese students, a common focus is on correcting grammar errors (Suzuki, et al, 2014, Sumida, 2018). Sumida measured the effectiveness of three teaching approaches to Japanese university students: explicit grammar instruction, written corrective feedback, and the combination of both approaches. It was found that only those who had both approaches progressed. Iwata and Suzuki (2017) investigated the effects of teacher feedback at high school English classes and concluded that the teacher comments on the content motivated students.

Teaching Schedule

The author hoped to adopt advice from these studies, and planned a process writing module, which is composed of a number of lessons of 50-minute instruction. In Japan, a university English class is usually conducted in 90- to 100-minute periods, and this module will take up about half of class time. That way, this module can be incorporated in an EAP program, a general English course, or a writing course.

In 2017, this module was implemented in three classes at a science department of a private university in Tokyo. Class Y1 was a first-year general English class with 26 students of CEFR A2 level, and Classes Y3a and Y3b which were both third -year presentation classes with 17 multi-level (CFER A2 –B2) students respectively. The students’ outlines and drafts were analyzed to measure the development of the students’ English writing skills.

Table 1: Participants of the Study

Class	Number of Participants	Level	Course	Hours of Instruction
Y1	26	A2 (streamed)	General English	5
Y3a	17	A2-B1 (mixed)	English Presentation	4
Y3b	17	A2-B2 (mixed)	English Presentation	4

The participants wrote an opinion paragraph/essay on the prompt, “SNS (Social Media Network) is beneficial/ harmful for education.” This topic was chosen as it

was expected to be interesting to science students. All three classes were taught by the same teacher who taught paragraph/essay writing using this module.

At the end of the module, open-ended questions about the writing experiences were asked:

- 1) What do you like most about this module?
- 2) What do you think needs improvement?

Emphases of the Module

The module was developed based upon emphases which were derived from existing studies: teaching the basics of paragraph/essay structure, assigning outlines, having students engage in peer feedback, and giving individual feedback to students.

Teaching of basics of paragraph/essay structure.

During the first session of all three classes, the instructor reviewed the structure of a paragraph, explaining a topic sentence, concluding remarks, supporting details, and elaboration. In Y3a and Y3b classes, the basics of five-paragraph essay writing were explained with model samples.

Assigning outlines.

Students discussed their ideas in pairs or groups, helping each other to construct outlines. Then they submitted outlines to the instructor who checked them and gave feedback to the students. When the submitted outlines were considered clear and logical, the students started to develop them into paragraphs. When they were not satisfactory, the instructor pointed out the flaws in logic to the students and had them corrected.

Giving Focused Teacher Feedback.

During the module, the instructor provided focused feedback on the submitted outlines and the written products. The feedback was given online, and a short conference was held.

Table 2. Intervention and Scaffolding

Week	Writing Activities	Intervention/scaffolding
1	<ul style="list-style-type: none">• Brainstorming on a prompt• Basics of paragraph writing (Y1), essay writing (Y3a and Y3b)	<ul style="list-style-type: none">• Peer discussion• Explicit instruction
2	<ul style="list-style-type: none">• Making a draft outline and submission• Studying examples of outlines and paragraphs	<ul style="list-style-type: none">• Explicit instruction
Online & conference		<ul style="list-style-type: none">• Instructor feedback on the first draft

3	<ul style="list-style-type: none"> • Individual feedback conference on the first outline • Revision of the first outline and submission 	
Online		<ul style="list-style-type: none"> • Instructor approval/feedback on the revised outline
4	<ul style="list-style-type: none"> • Writing the first draft (homework assignment) • Submission 	<ul style="list-style-type: none"> • Peer discussion
Online		<ul style="list-style-type: none"> • Instructor feedback on the first draft
5	<ul style="list-style-type: none"> • Individual feedback conference on the first draft. • Revision of the first draft and submission 	

Framework of Analysis

As the module was implemented, the instructor kept records of instruction and made notes on the classroom activities. The submitted written products were rated against the criteria adopted from the study of Kamimura and Oi (2006). In this study, their framework was modified to reveal the growth of students' writing abilities, especially from the perspectives of organization and logical flow.

1. Evaluation rubric of TOEFL Independent Writing (0-6 points)

(https://www.ets.org/Media/Tests/TOEFL/pdf/Writing_Rubrics.pdf)

The holistic score was rated based upon the TOEFL Independent Writing rubric.

2. Criteria of logical flow based upon Kamimura and Oi (2006)

1) Logical consistency

The logical consistency measured the directionality of an argument. A paragraph or an essay was labeled as either uni-directional or bi-directional. The former shows one consistent opinion, while the latter supports opposite or inconsistent opinions in the same paragraph/essay.

2) Clear statement

This criterion was to see whether a paragraph/essay has a clear statement of the writer's opinion, specifically the topic sentence of a paragraph.

3) Clear conclusion

This criterion was to see whether there is a final statement to conclude and summarize a paragraph. The use of the same words as the topic sentence was admitted in this study.

4) Organization

A paragraph or an essay was rated according to its clarity of organization. When its structure was logical and clear, it was rated as a 2. A paragraph which is written with some discourse markers but lacks consistency in the logic, is rated as 1. A paragraph with a few rambling sentences was labeled as 0.

5) Elaboration

This criterion measures the degree of supporting details in a paragraph or an essay. When supporting sentences were accompanied with effective elaboration, the writing was rated as 3. When at least one supporting sentence is well elaborated, it was rated as 2. When there was insufficient elaboration, it was rated as 1; a paragraph with supporting sentences which had no evidence or supporting details was evaluated as 0.

3. Word count

Finally, the word count of the student's writing was recorded.

Two independent raters evaluated what students wrote and submitted through the school Intranet system, according to these criteria above.

Results

Teaching Records.

At first, the progress of the students was observed and noted as follows.

Week 1-Week 2:

The students wrote an outline after brainstorming with peers, composed the draft outline and submitted it online. Upon receiving feedback from the instructor, they revised the outline. At this stage, some students managed to write a logical outline and proceeded to their first draft of a paragraph or an essay. On the other hand, some struggled and needed assistance from peers and/or an instructor to finally come up with a solid outline, which could be developed into a paragraph.

An example of a draft outline by Student A was as follows:

First Outline by Student A (as is in the original)

Topic Sentence: The prevalence of SNS is harmful for education.

Supporting Sentences:

1. The use of SNS distracts us.

2. I can't begin to study using SNS.

3. You can find various information.

Conclusion: We should decide on a rule for when to use SNS.

Another student pointed out that 1) the first and second supporting sentences convey the same message, although the expressions are different; 2) the third supporting sentence was a benefit, not a disadvantage, therefore, it does not support the topic sentence; and 3) the conclusion is not logically consistent with the topic sentence. In response to these comments, Student A revised the outline as below:

Revised outline by Student A

Topic Sentence: The prevalence of SNS is harmful for education.

Supporting Sentences:

1. The use of SNS distracts us.

2. SNS can be addictive.

3. Bullying is widespread on SNS.

Conclusion: SNS is dangerous and harmful for education.

Although the second and the third supporting sentences still need further revisions, the logic became clearer and the conclusion became consistent with the topic sentence. Student A was able to learn how to write an outline through discussions with peers.

Week 3-Week 4:

The first submission of outlines revealed that there were some common flaws of logic in students' outlines. One of them is that a supporting sentence was only vaguely connected to a topic sentence. For example, the supporting sentence, "It is convenient to find information on SNS" needs clarification and needs to be discussed in relation to education. The instructor explained this tendency to the whole class in the next class session. The comments to the students' outlines were returned to individual students online, and in class, brief conferences between a student and the instructor were held to confirm the student understood the meaning and implications of the feedback.

Original Supporting Sentence of Student B:

It is convenient to find information on SNS. We can find information without going to the library.

The instructor explained to the writer that these sentences should relate to education and support the topic sentence.

Revised Supporting Sentence of Student B:

It is convenient to find information on SNS in our study. It helps us when we search for books to finish homework.

Another example is as follows:

Original Supporting Sentence of Student C:

There is a possibility that the ability to think by oneself falls by using SNS.

The instructor commented that this statement needed to be supported by evidence.

Revised Supporting Sentence of Student C:

There is a possibility that academic performance is damaged by SNS. According to a study, GPA of students who use SNS is lower than that of those who do not.

In this way, students started to write logically, elaborate supporting sentences, and provide evidence for their opinions.

The focus of the feedback was mainly on logical flow. Due to the large size of the class and time constraints, minor grammar and usage errors were pointed out to a student but not discussed in detail, unless they had serious impact on the meaning of the student's writing.

Week 5:

As a result, Y1 class had 5 sessions in total, and the students submitted their paragraphs twice. On the other hand, Y3a and Y3b students had four sessions. All of them submitted an outline and revised it in response to comments by peers and the instructor. At the fourth class, half of them submitted an essay, and the rest a paragraph. They were not able to revise and submit the second composition.

So far the activities and interactions in class were explained through notes by the instructor. Next, the results from the analyses of submitted outlines and writings were explained.

Analysis of Students' Outlines and Writings.

1. Evaluation rubric of TOEFL Independent Writing (0-6 points)

In Class Y1, the average score of the first draft was 1.1, while the second draft was 3.5. The average score of Y3a was 2.2, while that of Y3b was 3.0.

2. Criteria of logical flow based upon Kamimura and Oi (2006)

1) Logical consistency

In Class Y1, 2 of 24 students wrote bi-directional arguments in their first drafts; in their second drafts, 4 wrote bi-directional arguments. Both Y3a and Y3b had one bi-directional argument within their production.

2) Clear statement

In Class Y1, 22 students out of 26 wrote a clear statement in the first and second drafts. Four were not able to write a clear topic sentence at the end of the module. In Y3a, 2 out of 17 students did not write a clear statement; in Y3b, 1 was unable to write one.

3) Clear conclusion

In Class Y1, at first 16 students wrote a clear conclusion; at the end of the module, 20 wrote a clear conclusion in their paragraphs. In Y3a, 14 out of 17 had a clear conclusion; Y3b had 16 with clear conclusions.

4) Organization

In Class Y1, at first, there were 4 students with a score of 2 (well-organized), and 6 students with 0 (rambled on). At the second submission, 11 students received a 2 and one student was at the level of 0. In Y3a, whose average was 1.31, 6 attained a score of 2, and 3 had a score of 0. In Y3b, one student received a 1, and the rest a 2.

5) Elaboration

The table below indicates the number of students in K1 who scored 0 to 3. Though there are no students who attained a score of 3, the distribution shows some improvement of scores.

3. Word Count

In Class Y1, the average word count in their first drafts was 77.4, with a range of 47-147. The second draft showed improvement with an average word count of 122.3, and a range of 99-181. Class Y3a had an average word count of 221.0, with a range of 94-470. Class Y3b had an average of 243.7, with a range of 120-431.

These findings are summarized in Table 3; the students in Class Y1 showed improvements in stating a conclusion clearly, organizing a paragraph, and elaborating using supporting details. However, logical consistency and clear statements remained the same. The increase in the word counts indicated that students were able to write more, which demonstrates that they became more fluent in L2 writing.

Table 3. Evaluation of Y1 (n=26)

	First Draft		Second Draft	
TOEFL based holistic score	Average 1.1		Average 3.5	
Logical consistency	6	bi-directional	4	bi-directional
	22	uni-directional	24	uni-directional
Clear statement	22	clear statement	22	clear statement
	4	no clear statement	4	no clear statement

Clear conclusion	16	clear conclusion	22	clear conclusion
	10	no clear conclusion	4	no clear conclusion
Organization	4	Score 2 (good structure)	11	Score 2 (good structure)
	16	Score 1 (some structure)	14	Score 1 (some structure)
	6	Score 0 (no structure)	1	Score 0 (no structure)
Elaboration	0	Score 3	0	Score 3
	3	Score 2	14	Score 2
	12	Score 1	5	Score 1
	11	Score 0	7	Score 0
Word Count	Average 77.4 words Range 47-147		Average 122.3 Range 99-191	

Table 4 shows the evaluation of third-year students. Y3a is slightly higher in all the criteria, though they wrote better than first-year students. As was explained previously, the third-year students submitted a paragraph or an essay once. The instructor gave feedback to them, though the revision was made and the second writing was submitted only on a voluntary base.

Table 4. Evaluation of Y3a (n=17) and Y3b (n=17)

	Y3a		Y3b	
TOEFL based holistic score	Average 2.2		Average 3.0	
Logical consistency	1	bi-directional	1	bi-directional
	16	uni-directional	16	uni-directional
Clear statement	15	clear statement	16	clear statement
	2	no clear statement	1	no clear statement
Clear conclusion	14	clear conclusion	16	clear conclusion
	3	no clear conclusion	1	no clear conclusion
Organization	6	Score 2 (good structure)	16	Score 2 (good structure)
	8	Score 1 (some structure)	1	Score 1 (some structure)
	3	Score 0 (no structure)	0	Score 0 (no structure)
Elaboration	3	Score 3	3	Score 3
	6	Score 2	14	Score 2

	6	Score 1	0	Score 1
	2	Score 0	0	Score 0
Word Count	Average 221.0 words Range 94-470		Average 243.7 words Range 120-431	

Survey

As an exit survey, students were asked to write a short reflection on their writing experiences. Since it was conducted a week before the term exam, 13 students out of 60 cooperated and filled out the open-ended form.

The responses were positive about their writing experiences;

It was difficult to come up with a good outline.

I enjoyed English for the first time in my life.

Group discussion was helpful in organizing ideas.

I expanded my vocabulary and improved grammar in the module.

I wanted more feedback on my grammar.

I realized my weaknesses in English skills. I learned I need to be careful in creating an English sentence.

These reflections show that students gained not only language skills but also a metacognitive awareness towards writing in English. Also, it turned out that the students felt the necessity of learning grammar and expanding vocabulary through writing activities. This may indicate that thinking and writing logically in L2 is effective in learning the grammar and lexical knowledge of L2.

Conclusions

In this study, a writing instruction module which focuses on logical flow was developed and implemented. The module had three emphases: overt instruction of paragraph/essay structure, peer discussion, and teacher feedback. Analyses of paragraph/essay structure and logical flow seem to show that the participants, in general, benefitted from this module. Most students wrote a clear statement and learned to write a conclusion. As for organization and elaboration, a few first-year students still have difficulty. This means that first-year students need more hours of instruction to reach a satisfactory level of paragraph writing skills. For most of the first-year students, thinking deeply in English was an initial experience for them. Some students struggled, and even in their classroom group discussion in L1, they were challenged with organizing their ideas into a clear outline. They must be guided step by step and repeatedly practice thinking logically. The proposed module was the first and a basic step to effective paragraph/essay writing.

This module in this study was implemented once during one school term which may not be long enough to improve writing and thinking skills in the second language. Further studies are necessary to prove what factors will contribute to the development of an effective program to teach English writing and logical thinking skills. Also, as a

research design, tools such as interviews with students and systematic surveys would shed lights on L2 writing curriculum studies.

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