Building Paragraph Writing Skills through Scaffolding

Ruth Vanbaelen

University of Tsukuba

Jonathan Harrison

Nihon University, College of Science and Technology

This paper examines how beginner-level ESL learners developed paragraph writing skills in one fifteen-week semester-long English Communication course. Continuous assessment of the participants' Zone of Proximal Development was reflected in adjustments in the scaffolding in spoken and written tasks. The data sample consists of five ten-minute timed paragraph writings done by a group of 177 ESL undergraduate STEM (Science, Technology, Engineering and Mathematics) students at a private Japanese university. First, the theoretical background is introduced, and the sample explained. Next, the analysis of the timed individual writings (839 in total) focuses on the number of words and the structure used. Finally, the effectiveness of class materials and the teacher feedback is considered in connection with the course format of 1) in-class paragraph structure instruction and group writing practice, followed by 2) a repeated two-class format that alternates pair talks and individual writings. Results indicate that within ten weeks, students became able to write a structured paragraph with an increased length. However, the decline in word count and less structured paragraphs observed in the final writing on a more complicated topic suggests the need for continued scaffolding along with vocabulary building exercises to sustain a positive learning curve.

本稿は1学期に亘るイングリッシュコミュニケーション科目において、参加者の最近接発達領域を随時に評価し、それらを口頭・筆記タスクに提供するスキャフォールディングに反映しながら、初級学習者が段落の書き方をどのように身につけるかを検討する。まず、理論的背景が紹介され、その次に理工系大学に在籍する177名の学習者による10分間の時間制限付きのライティング（計839例）が語数と段落構造に焦点を当て分析された。最後に、教材

や教員によるフィードバックが授業スタイル（段落の書き方の指導及びグル
ープライティングに続いて、週ごとに交替して行うペアトーク・プレゼンと
ペアトーク・個人ライティングのフォーマット）の有効性とともに考察され
た。初級学習者が10週の短期間で段落の書き方を身につけ、時間制限を守り
ながら構造化された段落を書くことが可能で、語数も徐々に増加すると分析
結果から明確となった。しかし、難易度の高いテーマによる最終課題では段
落構造が崩れることも観察され、上向きの学習曲線を維持するには継続した
スキャフォールディング及び語彙学習指導が必要だと思われる。

Introduction

When Japanese students enter university, they have already been exposed to a minimum of six years of English language coursework during junior and senior high school. Nevertheless, depending on factors like the secondary schooling and university entrance requirements, skills can be limited to a beginner or low-intermediate English level. During the summer of 2014, MEXT (2015) conducted a survey consisting of a test and questionnaire concerning the English proficiency of 70,000 Japanese students in their final year of senior high school. Its goals were to comprehend if a balance is attained between the four skills of listening, speaking, reading, and writing, and to have high schools in general use the survey results to improve student guidance and enhance learning. The test results indicated that for reading and listening, 72.7% and 75.9%, respectively, of Japanese third-year senior high school students display a proficiency of A1 (i.e. low basic user) in the CEFR framework (Council of Europe). The A1 percentage increases to 86.5% and 87% for writing and speaking, respectively, with nearly 44% scoring 0 on the writing task. According to the questionnaire, 38.7% of the participants self-reported "to have hardly ever written a summary or their opinion in English about content they read or heard" (MEXT, 2015, p. 3, translated from Japanese by the authors). Similarly, 60.3% of teaching staff agreed to have hardly ever implemented integrated writing activities into their courses.

At the private Japanese university where the current study took place, a semi-required (that is, required for some programs and departments) English Communication (EC) course was offered to second- through fourth-year students majoring in STEM fields. One of the EC course output goals was

"Graded written reports totaling a minimum of 200 words", as stated in the guidelines given to all course teachers. An output goal of 200 words is not high. However, through a show of hands in class, students self-reported to have had little writing experience beyond the sentence level. Therefore, most of the enrolled students can be categorized as false beginners or low-intermediate English learners in terms of writing skills.

It should be noted that in this four-skill integrated course, writing activities were limited in time and alternated with other course objectives such as communicating in different situations, asking and answering basic questions, summarizing listening and reading exercises, and integrating the information into spoken or written product.

Two research questions are addressed in the present research. Firstly, how well do course participants develop the skills to write a structured paragraph in the span of a 15-lesson course with 90-minute classes which includes one writing instruction session and 10 in-class activities (under 30-minutes each)? Secondly, what scaffolding proved helpful in the learning process?

Background literature and study framework

In the 1930's, Vygotsky (1978) focused on child development and developed the Sociocultural Theory (SCT). This theory describes learning as a culturally influenced social activity in collaboration with both peers and teachers. Development happens on two planes, namely, first on the social level when children learn through interaction, and only later on the individual level when children have appropriated the knowledge received through interaction. SCT has been applied in L2, for example, by Ohta (1995, 2001, 2005) in relation to L2 learning as a whole and in relation to L2 writing processes in particular by Storch (2007) and Schwieter (2010). Accordingly, the authors draw upon SCT because the participants of this study learn the process of paragraph writing in interaction with the course instructor and their peers before moving on to individual writing.

Within SCT, Vygotsky (1978) defined the Zone of Proximal Development (ZPD) as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as

determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). In the 1980s, recitation and rote learning were still the norm for most student-teacher interactions in the U.S. (Tharp and Gallimore, 1989). In Japan, although the government instituted changes to "reduce the teaching of mere knowledge or of rote memorization material" in 1996 (IFIC/JICA, p. 39), a recent MEXT report (2016) suggests rote learning continues to heavily influence education. Tharp and Gallimore (1989) advocated for "assisted performance" stating that, "Teaching must be redefined as assisted performance. Teaching consists of assisting performance. Teaching is occurring when performance is achieved with assistance" (p. 23).

To make the concept more suitable for the L2 field, especially for adult learners (such as university students), Ohta (2001) adopted the notion of assistance while expanding Vygotsky's definition of the ZPD to "the distance between the actual developmental level as determined by individual linguistic production, and the level of potential development as determined through language produced collaboratively with a teacher or peer" (p. 9). This definition is adapted from her earlier study (Ohta, 1995), in which she added that "L2 acquisition takes place as the gap between what the learner can do alone and with assistance is filled through collaboration" (pp. 96-97), emphasizing the need of interaction. Although she defined interaction as "learner-learner interaction" (p. 96), her focus was on "engagement in activities between novice and expert" (p. 96), which can be read as between student and instructor. Here, part of Vygotsky's definition concerning guidance "by adults or more capable peers" lingers. Vygotsky's definition allows a variety of people to assist the learner in the ZPD, but instructors, whether they be parents, friends, or teachers, need to be more knowledgeable, more competent.

However, according to Ohta's literature review (2005), from the late 1990's onward research discusses the usefulness of interaction between peers without specific requirements of skill or experience. Several of the studies mentioned in the review indicate that learners improve their performance through peer collaboration, regardless of the peer's skill level, i.e., more capable peers will benefit from assisting less competent ones and vice versa. In addition, the

increased performance may have a lasting effect on later individual output. Storch (2007) similarly suggests that "pair work afforded learners opportunities to pool their linguistic resources and co-construct knowledge about language" (p. 155). Effective scaffolding reduces variability within the task and minimizes frustration (Schwieter, 2010). Schwieter also states that error correction in second language writing does not contribute to development unless there is expert feedback which allows learners to better understand the error and correct it in future writings.

Comparably with the suggestions Storch (2007) made about the importance of peer collaboration, Wertsch (2008, reprint of 1979) is said to have explained "scaffolding as a dialogically produced inter-psychological process through which learners internalize knowledge they co-construct with more capable peers" (Lantolf and Thorne, 2006, p. 282). Within the approach of scaffolding as dialogical interaction, the authors of the current paper define scaffolding as the provision of tools as a form of assistance to enable the learner to perform. Therefore, the focus is different: the instructor/expert provides the scaffolding tool and the learner performs with assistance. Scaffolding tools can consist of class materials such as handouts and visuals, of similar topics used in speaking and writing tasks and of teacher feedback. Here we follow Storch (2005) in that the teacher provides the appropriate level of assistance to bring the learner beyond their current level towards their potential level of development.

Instructors and peers are instrumental for assisting the learner's performance. The analysis in this paper will mainly focus on assistance from the instructor and the scaffolded tasks that were provided to improve individual performance. The positive influence peers have on the learning process is, however, not denied, hence the strong emphasis on pair and group activities in class that lead up to the writing tasks. The measurement of peer assistance would be difficult but not impossible. It is, however, beyond the scope of this paper and will be considered in future projects.

Learning in and around the ZPD occurs in four consecutive stages, as described by Tharp and Gallimore (1991). In the first other-assistance stage, learners will perform while frequently assisted by more capable others. Gradually,

they will move to the self-assistance level in which the support of others is less needed and progressively reduced. In the third automatization stage, learners have appropriated the skills, can perform individually, and have thus stepped out of the ZPD. Finally, de-automatization, i.e., when skills decline due to insufficient regular practice, might make the learner relapse to the ZPD in need of and possibly in search of assistance. The authors have depicted these stages illustrated through cycling clipart (Irasutoya, 2014) in Figure 1.

Successful learning is moving from a current level of development (what the learner can do alone) through the ZPD (what the learner can do with assistance) to attain a new level of development (what they previously could not do alone or even with assistance but is now internalized.) This process requires effort from both the learner and instructor. The learner must be receptive to assistance, but it is especially the task of the instructor to assess what kind of assistance the learner requires when and for how long. Assessing the student's knowledge is one of the main issues encountered when trying to determine their position in the ZPD. Wood and Middleton (1975) state that: "The sensitive instructor continually modifies his or her approach to the teaching task on the basis of the tutees responses" (p. 190). Put differently, an instructor needs to alternate the style
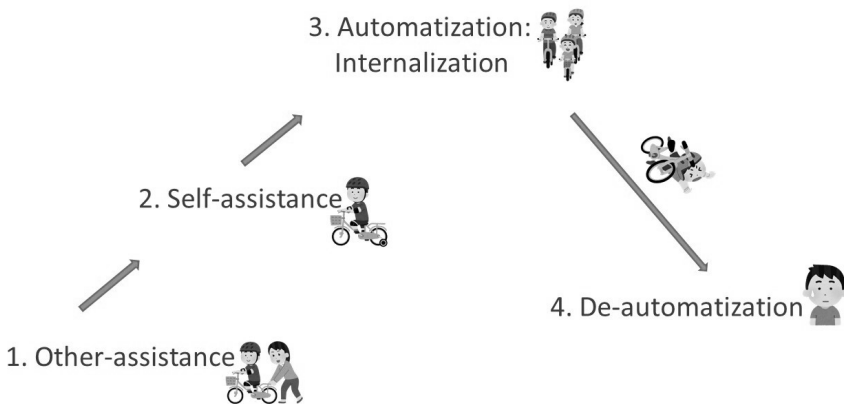

Figure 1. Authors' depiction of the four stages of learning in and around the ZDP.

of instruction and choose explicit and specific instructions when the student is struggling in the other-assistance stage. Assistance should be provided until the student makes progress. Smoother task completion is a sign that assistance should become more implicit and less specific as the learner moves into the self-assistance stage and eventually into the automatization stage beyond the ZPD.

Efficient activities with a content connected to what students understand and relate to will help learners move through the respective stages in and beyond the ZPD. The instructor, however, needs to continuously gauge the balance between the task difficulty and the skills already developed by the students in order to keep them motivated. A task that is too challenging will create frustration; one that is too easy will cause a loss of interest. To support learners, Wigglesworth and Storch (2009) suggest dynamic assessment. In contrast with traditional assessment that aims to check what learners know or can do at a given moment, dynamic assessment aims to discover and provide the type of assistance that is needed to help the learner successfully complete the task or obtain the desired knowledge. The current study assesses the learners' needs from task to task and adjusts assistance on an ongoing basis.

The above description of assisting learner performance with scaffolding as learners move through and beyond the ZPD provided the framework for the in-class activities to achieve the course output goals and objectives. All EC course instructors were free to decide on course content as long as the spoken and written output goals and objectives were met within the course theme constraints, e.g., travel and culture. The instructor for this data set opted for the instruction of paragraph writing skills in order for 1) these university students to step up from sentence-level writing, 2) to integrate speaking and writing activities which mutually support each other, and 3) to prepare students for more academic-oriented speaking and writing tasks that they will face in the next level course if they continue on to the second semester. Both teacher and peer assistance were employed to enable students to individually write structured paragraphs. For most students the learning process was assumed to be as follows. Students know the concept of a paragraph but do not have the skills to write one because they are, for example, unaware of the structure. This positions them on

one side of a continuum, the level of potential development, where they struggle to produce a paragraph independently, clearly needing assistance. As part of the scaffolding, instruction with examples, interaction with instructor and peers, and practice will move them into the ZPD, more centrally located on the continuum, and beyond. The ZPD is not static but shifts back and forth according to the learner's improvement or regression. Through continued assisted performance, it is hoped that students in this course will reach the level of actual development at the opposite end of the continuum where they can perform independently and individually write structured paragraphs.

Methods

Participant sample

Out of 230 students belonging to STEM majors as physics, mathematics, civil engineering, aerospace engineering, etc. and enrolled in six classes of English Communication, 196 passed the course, 19 completed the course but failed, and 15 did not complete the term. The writing goal was for each student to complete 5 individual in-class writings each in the form of a structured paragraph. Students finishing 3 writings ($n = 26$) or 2 writings or less ($n = 27$) were not included in the analysis. This resulted in a sample of 177 students who completed 4 or 5 writings, with a total of 839 writings. Of these, 131 (74%) students completed 5 writings, and 46 (26%) students completed 4 writings. Of the 177 students, 138 (78%) were second-year students, 38 were third-year students (21.5%), and 1 was a fourth-year student (0.5%). The second-year students were third-year students in senior high school during the time of the before-mentioned MEXT survey (2015). Therefore, it is believed that more than 80% of the sample had a writing level close to CEFR A1 as levels do not rise significantly in university. Matsuura, Fujieda, and Mahoney (2004) reported that more than 40% of both teachers and students at university level believed an intermediate English proficiency level for university students upon graduation was ideal. Their description of intermediate, however, leans closer to the CEFR A2 level, i.e., basic user, and only slightly higher than the A1 level that most of the students in the current sample likely have.

Data analysis: Word count analysis

A total of five individual 10-minute timed handwritten writings were implemented in class and collected. All writings were scored, and handwritten feedback was added. For each writing the number of words was counted manually by the instructor and input in a spreadsheet per individual.

The word count was considered an indicator for writing fluency, consistent with Wigglesworth and Storch (2009) who regard "length of production" (p. 451) as fluency. With the traditional 8-sentence paragraph structure used in class, a basic yet properly structured paragraph needs a minimum of around 40 words. However, such a paragraph can be thought to contain very little sentence style variation (SVO) and little vocabulary variation. A higher word count is hypothesized as to correspond with a better structured paragraph with more sentence variation.

Data analysis: Paragraph structure analysis

Analyzing the paragraph structure of 839 writings and describing the results were not feasible within the span of this study. Four groups were created, and a selected number of writings were analyzed. The students for the groups were chosen through both word count and subjective instructor observation of behavior and performance. Based on group dynamics during class, different groups within the sample could be identified. Group 1 was composed of students who seemed to struggle with pair talks and writing yet improved throughout the term. Group 2 consisted of students who seemed to have a more advanced level than those in group 3 but decided not to use all scaffolding to their advantage. In contrast, group 3 used all available scaffolding such as visuals, handouts, etc. to their advantage, reflected on the feedback in later writings, and hence steadily improved. During the term, this group exhibited more motivation than group 2, as evidenced by their greater willingness to communicate with the instructor. Group 4 consisted of students with a higher English proficiency than the other three groups. These were students with experience abroad, more exposure to English, or simply more personal interest which led to higher proficiency by the time they were sophomores. They could allocate more of their effort into the paragraph structure, while the

other groups had to divide their time between sentence writing and structuring those sentences. For each group, five students who completed five writings (25 writings per group, 100 writings in total) were selected.

Based on Zemach and Rumisek (2003) an 8-sentence-minimum paragraph structure was taught in class near the onset of the course during weeks 2 and 3. A single paragraph starts with a title and is written in a block format. The first sentence (topic sentence) is indented and includes the topic and three main ideas concerning the topic. This sentence is followed by primary and secondary supporting sentences (i.e., explanation and examples) for each main idea. The final sentence is the concluding sentence that repeats the topic and the main ideas. For the analysis, each element was given a point with a maximum score of 17 points per analyzed paragraph, as shown in Table 1. Issues with grammar, spelling, and coherence were addressed as part of the feedback process, but due to the scope of cataloging the range of possible errors and differences in style, these are not part of this analysis.

Methods of Scaffolding

One of the course goals was for students to write a structured paragraph without assistance by the end of the 15-week term. To achieve this, at the beginning of the term, student writing skills had to be assessed to provide them with adequate assistance. As mentioned earlier, an excess of scaffolding makes the task too easy, and a lack thereof creates learner frustration as it puts the learner outside of the ZPD in a zone where performance is impossible. What follows is a description of the pre-writing tasks, in-class instruction and practice, the materials that were used as scaffolding, and feedback from the instructor.

As a pre-writing task in Week 2, students conducted interviews of their classmates. Interviewees were instructed to provide extra information in their answers. For example, a question related to one's hometown was to be answered with additional information of what the place is known for. As a writing task, students were to introduce one peer in 10 sentences using information from the interview exercise. The results for this writing task (not included in this paper) indicated little experience with writing a coherent text in English.

Table 1
Rubric for Paragraph Structure Analysis

Analysis Items	Score
1. The paragraph starts with a title.	1
2. The paragraph is written in block format (not a new line for each sentence).	1
3. The first sentence of the paragraph is indented.	1
4. The topic sentence includes the topic and 3 main ideas.	4
5. Main idea 1 explained as primary support and an example is given as secondary support.	2
6. Main idea 2 explained as primary support and an example is given as secondary support.	2
7. Main idea 3 explained as primary support and an example is given as secondary support.	2
8. The concluding sentence includes the topic and the 3 main ideas.	4
Maximum Score	17

Writings tended to take a format of one numbered sentence per line with a blank line, presumable provided for corrections (Table 2). During the follow-up class discussion, students admitted to never encountering the writing style of the example in Table 2 in real life, that is, in textbooks, newspapers, novels, letters etc. in neither English nor Japanese. Students came up with things such as transitions between sentences as lacking elements in their writings, but no student mentioned essential elements like the topic or a conclusion. Consequently, students were determined to need extensive scaffolding to attain the set goal of writing a structured paragraph unassisted.

In Week 3, students were taught the writing process of a paragraph in five detailed steps: 1. Decide the topic, 2. Brainstorm about the topic through mapping, 3. Edit the map to narrow down the topic, 4. Learn the structure of a traditional paragraph, and 5. Write structured paragraphs using steps 1 through 3. They then read a sample paragraph and color-coded the different sentences (topic sentence, explanation (x3), example (x3), concluding sentence). Handouts and slideshows were provided to students to demonstrate these concepts.

Table 2
Student Example of Writing Assignment Week 2

1. My partner's name is XXX.

2. His department is the Department of YYY.

3. He is in the fourth year.

4. He likes to listen to music.

5. He usually listen to music.

6. He likes jazz.

7. He likes rock.

8. His favorite player is Lady Gaga.

9. He is from ZZZ.

10. It is a city in Kanto, in Eastern of Japan.

Next, students were instructed to write a paragraph in small groups of two to three in class, following the five-step process. Students assisted each other during the group task. The instructor would provide guidance in class by asking the students to point out elements (topic sentence, main ideas, etc.) in their writing, or assist them formulate explanations or examples. The writing was submitted to the instructor at the end of the class, and that led to writing an individual paragraph as a homework assignment. For both tasks, handouts, notes and dictionaries were available as scaffolding tools. The homework writings were submitted digitally via email.

In Week 4, written instructor feedback regarding the group and individual writings was provided. The feedback consisted of a checklist (Table 3) concerning paragraph structure, and additional comments on grammar and usage errors.

Between weeks 4 and 13, five sets of "Speaking & Presenting" (even-number weeks) and "Speaking & Writing" (odd-number weeks) activities were implemented as follows. Students did weekly pair talks of 10 to 15 minutes on topics provided by the instructor (Table 4). In the weeks with an even number,

Table 3

Checklist Example

1. You added a title.	Yes / No
2. You indented the first sentence of a paragraph, three to five spaces.	Yes / No
3. You wrote in paragraph form (block of sentences, not a new line for each sentence).	Yes / No
4. You color-coded the paragraph.	Yes / No
Topic sentence with the topic and the main ideas (color 1)	
Explanation for main idea 1 (color 2)	
Example for main idea 1 (color 3)	
Explanation for main idea 2 (color 2)	
Example for main idea 2 (color 3)	
Explanation for main idea 3 (color 2)	
Example for main idea 3 (color 3)	
Concluding sentence (color 4)	
5. Your topic sentence includes the topic and the three main ideas.	Yes / No
6. You used explanations and examples for each main idea.	Yes / No
7. Your concluding sentence includes the topic and the three main ideas.	Yes / No
8. The grammar is correct.	Yes / Mostly correct / Many mistakes / No
9. The meaning of your writing is clear.	Yes / Mostly correct / Many mistakes / No

3 to 4 students per class presented about the content of their talk. No writing was done. In the weeks with an odd number, instead of presenting after the speaking activity, all students wrote a ten-minute timed paragraph about the

topic discussed during the speaking activity. As writing aids, they had access to notes, handouts and dictionaries. In addition, during most weeks, oral and/or visual samples were provided by the instructor, shown in parentheses in Table 4. Students were not informed about the alternation to avoid students starting to write their paragraphs during the time set aside for the speaking activity.

Alternating between "Speaking & Presenting" and "Speaking & Writing" had multiple functions. First, "Speaking & Presenting" prepared the students for "Speaking & Writing" of the next week, due to the use of similar topics in line with Schwieter's (2010) variability reduction hypothesis. For example, Set

Table 4
Overview of Topics and Availability of Samples

	Speaking & Presentation Even-number Week of Set	Speaking & Writing Odd-Number Week of Set
Set 1	Your plans for the upcoming holiday. (No sample)	Your activities during the holiday. (Oral sample in paragraph format)
Set 2	What is your favorite restaurant? (Slide with color-coded paragraph sample)	What is a good place in your city to have fun? (Slide with color-coded paragraph sample)
Set 3	What place in Japan should tourists definitely visit? (Slide with color-coded paragraph sample)	What place in Japan do you want to visit the most? (Slide with color-coded paragraph sample)
Set 4	What is your favorite subject at the university? (Slide with paragraph sample, not color-coded)	What are your summer holiday plans? (Slide with paragraph sample, not color-coded)
Set 5	What company do you want to work for? (Short oral sample, non-paragraph format)	Why do you want to work for that company? What skills do you need and what are you doing now to attain them? (Oral sample in paragraph format)

2 dealt with personal enjoyment. The first topic was to speak and present about a favorite restaurant, and the second topic was to speak and write about a place to have fun. Next, the alternation lowered the pressure on students who tend to consider writing more as a burden than talking. It also lowered the instructor's workload of weekly correcting an average of 180+ writings and providing individual feedback.

The topics covered in the five sets were chosen for their close relation to student life. Students could easily identify themselves with the topics, this to facilitate engagement in the speaking, presenting and writing activities. Additionally, the topics had a horizontal and vertical scaffolding function, as shown in Table 4. Horizontally, similar topics challenge the students for example to use the future and past tense (Set 1), or to expand vocabulary (Set 2-5). Vertically, the topic complexity increased gradually from Set 1 through Set 5.

Feedback from the instructor as scaffolding

Instead of simply correcting student errors, Schwieter (2010) points out that combining corrections with expert feedback increases student understanding. Two types of feedback were used throughout the course, namely oral and written feedback. Written feedback was directed at individual students. General oral feedback was aimed at the group as a whole and more detailed feedback at individuals. The checklist in Table 3 is an example of written feedback. The list had a double function. For the instructor it served as a standard upon which to score the initial writings, and for students it was a structural scaffolding tool that included all elements of paragraph writings for later reference. For Writings 1 through 5, besides grammar and vocabulary corrections, the instructor handwrote feedback before returning the writings to the students. A scaffolding evolution can be seen in the focus of the feedback. As a general tendency, for Writings 1 and 2, feedback concentrated on the paragraph format and the beginning of the paragraph, including for example suggestions to write in paragraph format, to add a title and to include the three main ideas in the topic sentence. Later feedback focused more on the body of the paragraph ("Explain the main ideas a bit more.") and towards the end of the term the conclusion ("In the conclusion,

repeat the topic and the three main ideas."). To foster student motivation, feedback also included praise ("Nice writing!" "Good luck with [the topic the students wrote about]") and suggestions for improvement. Suggestions included general remarks such as "Adding extra information about the main ideas would make your writing even better," as well as concrete examples such as "A suggestion for the conclusion: ... but the island's nature, its fresh food and my grandparents' stories excite me every time."

From a ZPD point of view, it would have been counter-productive to overwhelm students who were still struggling to write a topic sentence with excessive feedback about the lack of other paragraph elements. Therefore, although a general tendency can be seen with feedback focus gradually moving from paragraph format (title, block writing) to content elements (main idea explanation and examples, conclusion, etc.), feedback was individualized and catered to the needs of each student, i.e., individual student position in the ZPD.

Oral feedback/support aimed at the class group as a whole followed a tendency similar to the written feedback. Initial oral feedback consisted of pointing out the importance of style elements (add a title, use indentation, and write in block format) when returning previous writings and having students repeat these elements before they started a new writing task. It then shifted to the body with a focus on explaining the main ideas and gradually moved to the conclusion. Unlike the individualized written feedback, oral feedback was more general as the goal was to familiarize students with all paragraph elements.

Results and Discussion

The average word count of 839 writings completed during five writing sessions is shown in Figure 2. Students gradually increased the number of words per writing, although the allotted 10-minute limit remained the same. The types of scaffolding used to assist students with writing and move within the ZPD closer to the level of actual development where they can perform without assistance will be discussed later in this section. In Writing 5, a decrease in word count occurred. This will also be examined.

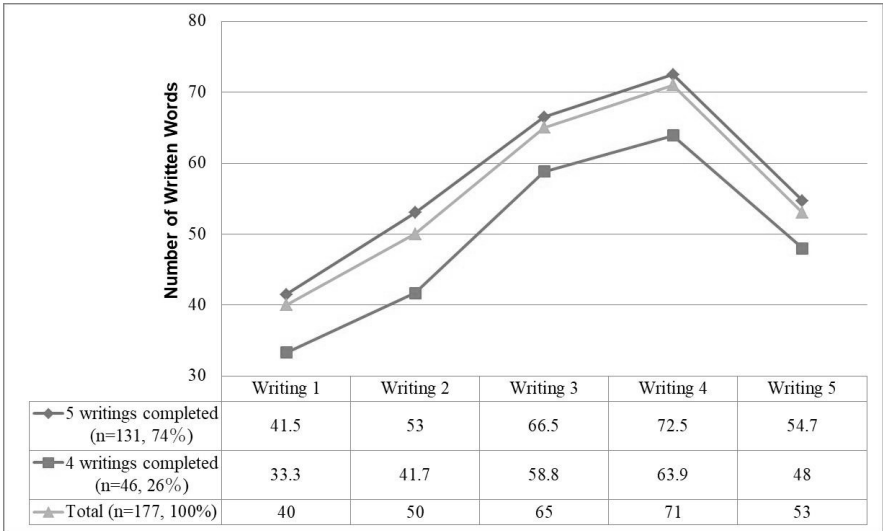To understand student skill development concerning paragraph structure, a

	Writing 1	Writing 2	Writing 3	Writing 4	Writing 5
5 writings completed (n=131, 74%)	41.5	53	66.5	72.5	54.7
4 writings completed (n=46, 26%)	33.3	41.7	58.8	63.9	48
Total (n=177, 100%)	40	50	65	71	53

Figure 2. Average word count per writing.

total of 100 writings (25 per group) introduced in the section about paragraph structure analysis, were scored in terms of paragraph structure.

First, the average word count per group per writing (Table 5) is discussed. The respective groups had the following characteristics. Group 1 students improved slightly in word count throughout five writings. This may indicate low English proficiency or low motivation. The average of the group 2 word count results form a typical (for this analysis) curve. Students improved until Writing 4, but the word count dropped in Writing 5. The analysis verified that this group developed in a similar manner to group 1 but with a higher beginning and ending point. Group 3 students started with a word count below or around average, but steadily improved the count through Writing 5. In the whole sample, only a few students had a learning curve like this. Accordingly, also students who had a decrease in word count of 3 or less were included. The analysis on the paragraph structure was done to verify if their increase happened in a similar manner in the paragraph structure evolution. Group 4 included students with a high start (60+ words in Writing 1) indicating a higher proficiency than other students.

As for paragraph structure elements, the results are summarized in Figure 3, indicating group average scores per writing. The groups steadily increased the

amount of structure elements used in Writings 1 through 4. However, in Writing 5, the use of structural elements seems to have collapsed. The paragraph structure evolution per group is given in Figures 4-7. Especially regarding the use of format elements (the use of a title and a block format, with the first sentence indented), the topic sentence mentioning the topic and the first main idea, explanations, and examples of the first and second main idea were acquired. These are elements for which a high score was obtained. A large portion of the students lacked inclusion of the second and third main ideas in the topic sentence, providing information about the third main idea, and completing the paragraph with a conclusion that repeats the topic and the three main ideas.

In Week 3, students completed group and individual writing assignments. The average group paragraph and individual paragraph scores, based on the Table 3 Checklist, were 67% and 63%, respectively. Based on these scores, the instructor assessed the students to have appropriated the basic paragraph structure and to be able to write a paragraph after the pair talk activity with limited scaffolding, i.e., only the aid of an oral sample before the start of the writing activity and with dictionaries, notes, and handouts during the activity. However, both the word count (Figure 2) and the score on structure elements (Figure 3) were low for Writing 1.

Consequently, scaffolding was increased for Set 2. A slide with a color-coded paragraph sample was displayed during the entire time of the activities, in an attempt to minimize frustration during learning development (Schwieter, 2010). Coding the elements of a paragraph in different colors (Table 3) facilitated

Table 5

Average Word Count per Group per Writing

Group	Writing 1	Writing 2	Writing 3	Writing 4	Writing 5
Group 1	21.8	33.4	37.4	38.4	28.4
Group 2	44.2	61.4	77.8	86	72.6
Group 3	39.2	58.2	66.8	80.2	83.4
Group 4	75.2	78	95.4	104.4	73.2

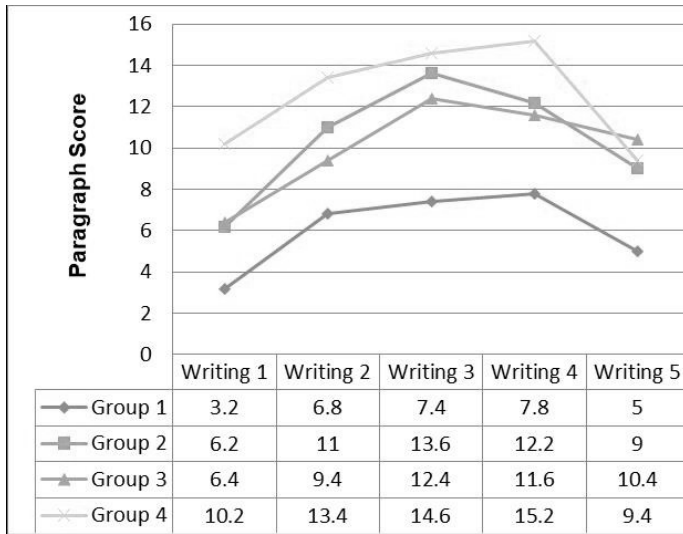|	Writing 1	Writing 2	Writing 3	Writing 4	Writing 5
Group 1	3.2	6.8	7.4	7.8	5
Group 2	6.2	11	13.6	12.2	9
Group 3	6.4	9.4	12.4	11.6	10.4
Group 4	10.2	13.4	14.6	15.2	9.4

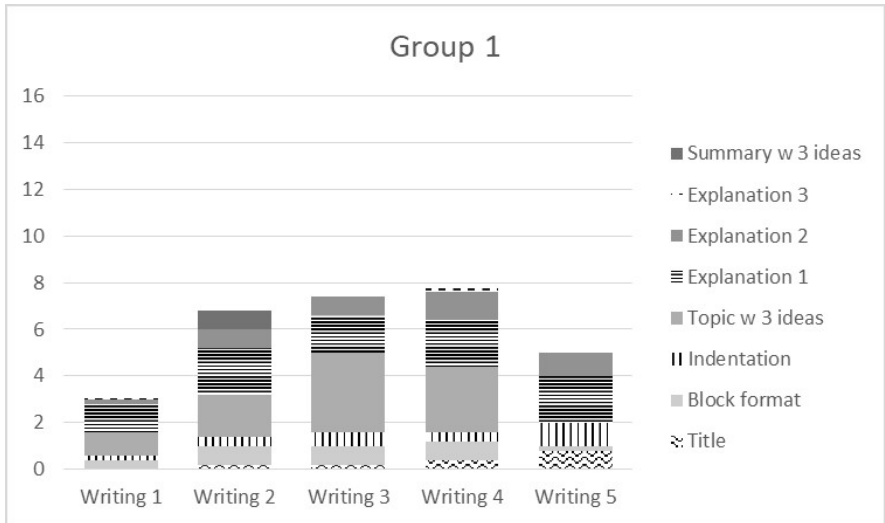*Figure 3*. Paragraph structure score averages (Max. 17) per group per writing.

Figure 4. Group 1 average progression of structure use across 5 writings.

student recognition of what they had to include in their writing. This type of scaffolding was used again for Set 3. A positive increase in word count and the use of structural elements for Writing 2 and 3 signified a shift in the continuum. Students were moving away from the level of potential development where they
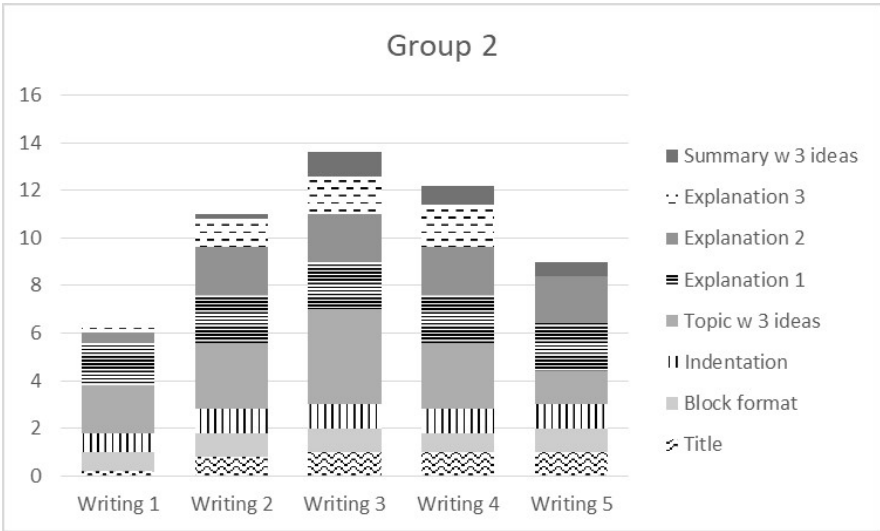
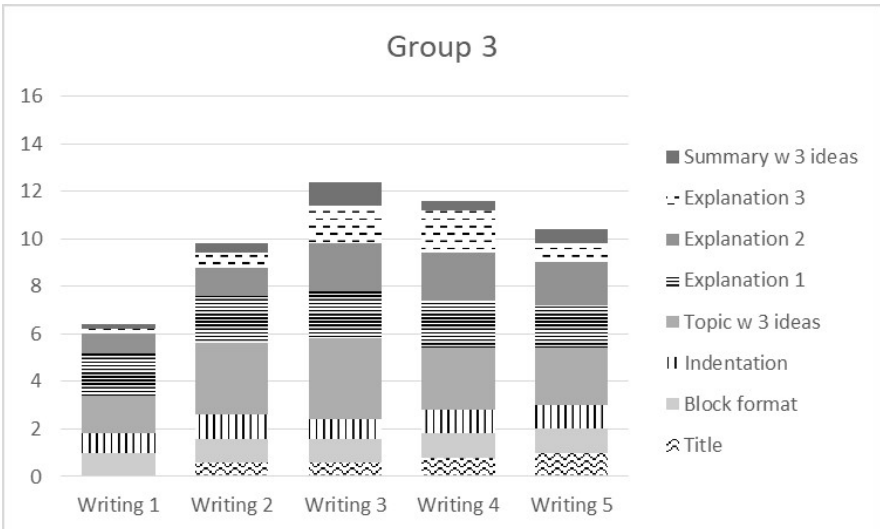*Figure 5*. Group 2 average progression of structure use across 5 writings.

Figure 6. Group 3 average progression of structure use across 5 writings.

could not produce a paragraph with assistance or let alone independently and they are moving closer towards the level of actual development where they can perform independently. Most groups, except for group 1, had mastered most structural elements (Figures 4-7). Lacking elements were the conclusion with a
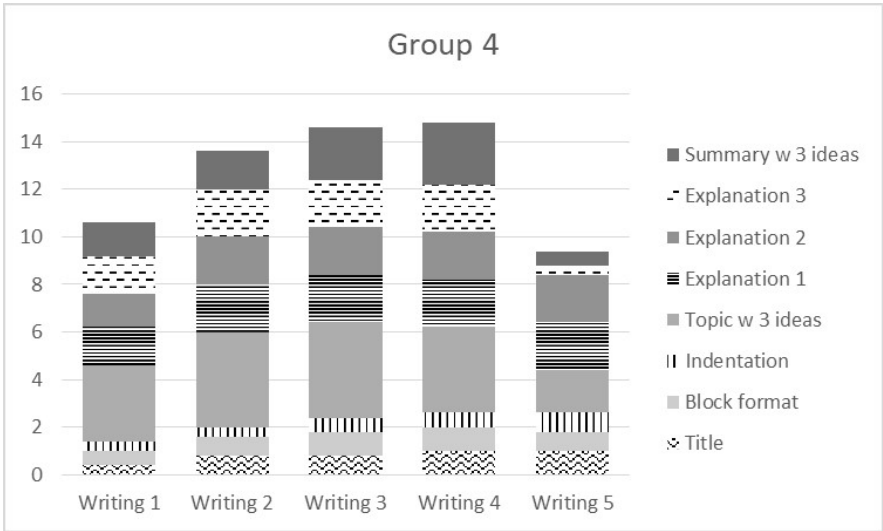
Figure 7. Group 4 average progression of structure use across 5 writings.

repetition of the main ideas. The instructor attributes this to a lack of time to finish the paragraph.

For Set 4, the visual scaffolding was reduced from a color-coded sample to one that was not color-coded. Writing 4 follows a similar trend as Writing 2 and 3. The number of words continued to increase, but the appropriation of structural elements stagnated. Student location within the ZPD was thought to be close to the level of actual development where task completion is possible individually without scaffolding or other assistance. Accordingly, for Set 5, little scaffolding was provided, and simultaneously the topic difficulty was increased. Unlike the positive increase in Writings 2 through 4, both the word count and the use of structural elements decreased in Writing 5. This suggests once more the complexity of determining a learner's ZPD and keeping the scaffolding balanced to provide the learners sufficient assistance without boring them. Removing the scaffolding in stages, i.e., first withholding the paragraph sample, and next using a more difficult topic would have probably lessened the burden for the students necessary to sustain the word count and use of structural elements at a level equal to Writing 4.

According to Ohta (2005), assistance in the ZPD happens in a two-fold

manner, i.e., through other- and self-management. Based on the evolution witnessed from Writing 1 to 4, the instructor's assistance (other-management) in the form of a paragraph sample slide was gradually withdrawn. Learners still had the possibility to self-manage tools such as handouts, notes, and dictionaries they regarded as relevant for their needs, but few used them to their full advantage; few students carried a dictionary or handouts, or took notes during the pre-writing speaking task. This is another indication the learners of this sample had not yet academically matured sufficiently to understand the usefulness of such tools and successfully "manage the ZPD for themselves as they interact both with people and with other L2 sources" (Ohta, 2005, p. 506). Continued other-managed assistance was needed but timewise difficult within the span of one semester.

Conclusion

The paragraph writing process of 177 ESL undergraduate students at a private Japanese university was documented. The number of words and the paragraph structural elements increased gradually from Writing 1 through 4. This indicates the strategy of scaffolded topics, scaffolded class materials, and scaffolded feedback was effective. The topics for each set of speaking and writing were similar yet sufficiently different. The materials included focuses on interviewing and adding details, brainstorming, mapping, editing, paragraph examples, color-coded paragraph structure examples and exercises, and checklists. The feedback style chronologically moved from focusing on format elements at the start of the course to topic sentences, and then in the middle and end of the course feedback focused more on the paragraph body and conclusion. Students with little writing experience were able to move through the continuum of the ZPD from a near-zero skill level where paragraph writing was difficult even with assistance towards a level of actual development where they can function without assistance within a 15-week semester. The decline in word count and structural elements noticed in Writing 5 suggests, however, that balancing the amount of scaffolding provided and the complexity of the paragraph topic is a delicate task.

The course in which this writing project took place had a four-skills approach.

Therefore, speaking, reading and listening also had to be addressed. This resulted in time constraints for in-class writing tasks and related activities. Also, in this study, peer interaction for the writing tasks was limited to the group writing that students did before the start of the five individual writings because group writings require extra time compared to individual ones. In addition, peers did pair conversations weekly about topics similar to the writing task topics to help familiarize themselves with new vocabulary and expressions. In further research, allotting time for peer editing of the written product could be useful to help beginner-level ESL learners become more fluent and confident writers.

References

Council of Europe: Global Scale - Table 1 (CEFR 3.3): Common reference levels. Retrieved from http://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale

IFIC/JICA [Institute for International Cooperation / Japan International Cooperation Agency]. (2004). The History of Japan's Educational Development. Retrieved from http://open_jicareport.jica.go.jp/pdf/11778784.pdf

Irasutoya. (2014) *Cycling* [PNG] (in Japanese). Clipart images retrieved from https://www.irasutoya.com/

Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford, England: Oxford University Press.

Matsuura, H., Fujieda, M., & Mahoney, S. (2004). The officialization of English and ELT in Japan: 2000. *World Englishes*, *23*(3), 471-487. doi. org/10.1111/j.0883-2919.2004.00369.x

MEXT [Ministry of Education, Culture, Sports, Science and Technology]. (2015). Heisei 26nendo eigoryokuchousa (koukou 3nensei) kekka no gaiyou [Brief overview of results of the English proficiency survey (3rd-year high school students)]. Retrieved from http://www.mext.go.jp/component/a_menu/education/detail/__icsFiles/afieldfile/2015/07/03/1358071_01.pdf

MEXT [Ministry of Education, Culture, Sports, Science and Technology]. (2016). Guide to Promoting ESD (Education for Sustainable Development). Retrieved from http://www.mext.go.jp/component/ english/__icsFiles/afieldfile/2016/11/21/1379653_01_1.pdf

Ohta, A. S. (1995). Applying sociocultural theory to an analysis of learner discourse: Learner-learner collaborative interaction in the Zone of Proximal Development. *Issues in Applied Linguistics, 6*(2), 93-121.

Ohta, A. S. (2001). *Second language acquisition processes in the classroom: Learning Japanese*. Mahwah, NJ: Lawrence Erlbaum.

Ohta, A. S. (2005). Interlanguage pragmatics in the zone of proximal development. *System*, *33*, 503-517. doi.org/10.1016/j.system.2005.06.001

Schwieter, J. W. (2010). Developing second language writing through scaffolding in the ZPD: A magazine project for an authentic audience. *Languages and Literatures Faculty Publications, 7*(10), 31-45. Retrieved from http://scholars.wlu.ca/lang_faculty/7

Storch, N. (2005). Collaborative writing: Product, process, and students' reflections. *Journal of Second Language Writing*, *14*, 153-173. doi. org/10.1016/j.jslw.2005.05.002

Storch, N. (2007). Investigating the merits of pair work on a text editing task in ESL classes. *Language Teaching Research*, *11*(2), 143-159. doi. org/10.1177/1362168807074600

Tharp, R. G., & Gallimore, R. (1989). Rousing schools to life. *American Educator, Summer 1989*, 20-25 and 46-52. Retrieved from https://www. researchgate.net/publication/31640335_Rousing_Minds_to_Life_ Teaching_Learning_and_Schooling_in_Social_Context

Tharp, R. G., & Gallimore, R. (1991). *Rousing minds to life: Teaching, learning, and schooling in social context*, Cambridge, MA: Cambridge University Press.

Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wertsch, J. V. (2008). From social interaction to higher psychological processes: A clarification and application of Vygotsky's theory. *Human Development*,

51, 66-79 (Reprint of *Human Development* (1979), *22*, 1-22). doi.org/10.1159/000112532

Wigglesworth, G., & Storch, N. (2009). Pair versus individual writing: Effects on fluency, complexity and accuracy. *Language Testing*, *26*(3), 445-466. doi.org/10.1177/0265532209104670

Wood, D., & Middleton, D. (1975). A study of assisted problem-solving. *British Journal of Psychology, 66*(2), 181-191. doi.org/10.1111/j.2044-8295.1975.tb01454.x

Zemach, D. E., & Rumisek, L. A. (2003). *College writing: From paragraph to essay*. Oxford, England: Macmillan Publishers.

Author bios

Ruth Vanbaelen *is an Associate Professor at the University of Tsukuba. She has a background in sociolinguistics and currently instructs Japanese to international students. For nearly a decade, she taught English to Japanese students. Most of her courses are communication-oriented while aiming for a four-skill balance in class activities. vanbaelen.ruth.gp@u.tsukuba.ac.jp*

Jonathan Harrison *teaches writing, presenting, and various communication skills to English language learning engineers in undergraduate and graduate courses. His research interests include curriculum and educational material design, motivation, edutainment and gamification, and study abroad. jon.harrison@nihon-u.ac.jp*