大学教育研究紀要 第 10 号（2014）79-92

Collaborative Lessons Through a Blended Learning Approach

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要旨

本稿は、岡山大学生対象の英語クラスと留学生対象の日本語クラスからの有志の学生との「合同授業」で行った「ブレンド型学習」（e-learning と対面式学習の組み合わせ）の実践報告である。留学生と日本人学生が協働で行った e-learning プロジェクト自体の言語学習目標は、テクノロジーを活用したプレゼンテーションによる英語発表力の向上であったが、「合同授業」の研究目的は、英語学習者と日本語学習者が e-learning プロジェクトを協働することにより、学生同士の交流や学習モチベーションなどにどのような影響が現れるかを調査することであった。学期末に行ったアンケート調査によるとどちらのクラスにも肯定的な効果が見られた。

Key words: blended learning, constructivism, collaboration, affordances, online technologies

1. Introduction

The purpose of this study was to explore how ‘collaborative learning’ between Japanese undergraduate students and international students at Okayama University could be enhanced through a course with a blended learning (Rovai & Hope, 2004) approach. Blended learning is an approach to learning and teaching which integrates face-to-face instruction with online learning opportunities in order to produce an enhanced learning experience. A previous study that Morioka and Uchida conducted (Morioka, et al. 2013) suggested the importance of collaborative lessons as an integral part of the development of a global community at Okayama University, providing a more diverse and active learning environment within the interaction and exchange between international and Japanese students.

In order to improve the learning experience offered by collaborative lessons, a blended learning course was designed to enable students to take part in an e-project. Careful consideration was given to pedagogical practice, particularly to how the integration of online components and the affordances that they may provide, would enhance both the learning and teaching experience. It was hoped that the use of a blended learning approach would support a new kind of interaction between Japanese and international students, allowing different modes of learning and collaboration to those offered through the previous collaborative lessons.

Bonk et al. (2006) suggest that blended learning can integrate the beneficial aspects of both learning environments, classroom-based and e-learning. Based on this claim, we hoped that the blended learning course would make the following things possible for the participants in the current study:

- increased engagement and opportunities for interaction
- better learning efficiencies
- more flexible and personalized learning
- more effective pedagogical practices
- the development of some digital literacy skills

2. Blended learning

2.1 Blended learning and constructivism

Blended learning lends itself to the constructivist approach and the concept of affordance that van Lier (2000) defines. According to the constructivist approach to language learning (Vygotsky, 1978), learning takes place within the zone of proximal development (ZPD). The ZPD is the distance between what a learner already knows and can achieve independently and what a learner can achieve with the help of collaboration from someone who is a little more proficient. Constructivism encourages collaborative work and activities that strengthen cooperation between learners. With collaborative peer work, the learning that takes place in the ZPD is supported. The term 'scaffolding' (Wood et al., 1976) describes this support process. The constructivist theory of learning and teaching asserts that an effective way of acquiring skills and knowledge is through social interaction, with the help of scaffolding. The collaboration that takes place in this kind of environment will enhance learner performance. In this learning environment, the role of the learner is central to the learning process and the teacher's role becomes that of a 'moderator.' King (1993) describes the paradigm shift, in terms of a change of teacher roles, from 'Sage on the Stage' to 'Guide on the Side.' This is better not seen as a dichotomy, but as a continuum, as the use of a variety of teacher roles is necessary.

The approach for the collaborative classes was to use online technology to develop a blended learning environment, in order to increase active learning in support of a social constructivist approach. As Vaughan et al. (2013) suggest, the most important role of blended learning is to extend thinking and discourse over time and space. Online resources make student access to peers, learning activities, information and support, more flexible. It was hoped that enhanced by the affordances offered by the synergy between online technology and the constructivist approach to learning, this new learning environment and experience would be highly beneficial to the students taking part in the collaborative classes.

2.2 Online technology and affordances

The notion of affordance was coined by James Gibson, and has been discussed much in the field of second language learning. Based on van Lier's (2000) discussion of affordance, it is defined as the opportunities for learning or interaction provided by a situation in respect to the learner's ability.

In order to enhance the student learning experience as much as possible, the affordances of the online technologies listed below were used in this blended learning course:

- An LMS – (a learner management system) Edmodo
- Web 2.0 tools – Email and Line (a short message service), Padlet (an online whiteboard), myBrainshark (online software that allows audio to be added to documents, PowerPoint slides, photos and videos)

The use of an LMS and Web 2.0 tools (social media technologies) in a blended learning approach aligns with the constructivist approach. The synergy of the approach and tools creates an environment with far greater potential for collaboration and learning than our previous class was able to provide.

The use of an LMS *(Edmodo)* made it possible to create a 'home' for the class, a place to post classwork, homework, best practice examples and make technical support available. This was part of the scaffolding for the class.

The removal of student names before posting assignments on the LMS also enhanced the peer review process. By posting anonymous assignments online, students had greater access to peer work and could peer review without identification. This allowed students to interact with their projects and other students easily, giving them more freedom but also more responsibility for their learning.

Students simultaneously shared ideas on Padlet, an interactive whiteboard often used to facilitate brainstorming activities and online discussions. It enables a more efficient use of face-to-face time. The process of the co-production of knowledge can be greatly enhanced in this way.

The use of myBrainshark gave students a tool to create a personalized and engaging video presentation. MyBrainshark allowed students to easily share each other's work. It also gave students the opportunity to publish their work online.

The technology incorporated in this course allows students to collaborate both synchronously and asynchronously. Particularly with limited face-to-face time, this was essential in order to create informal learning communities in which students would feel easier sharing, collaborating, and working together on their projects. Students made use of a variety of social media tools for contacting members of their group and the teachers.

Using blended learning in this way, with the combination of the use of an LMS and Web 2.0 tools, the activities students participated in online and in face-to-face class time, complemented each other well, encouraging further collaboration.

3. Collaborative lessons

The collaborative classes were designed with a constructivist approach, following Salmon's (2001) five-step 'Model for collaborative online learning', which particularly focuses on interaction with peers, aligning with the pedagogical intent for this course. The steps include: 1. Access and motivation, 2. Online socialization, 3. Information exchange, 4. Knowledge construction, and 5. Development. The 'access and motivation' and 'online socialization' steps provided the scaffolding to support students as they prepared to exchange information, construct and develop their knowledge. The first two steps included activities to introduce students to group members, the online environment and the digital tools they would use.

Unfortunately, the lesson schedules for the two classes (first year Integrated English Speaking and Intro-to-Intermediate Japanese) did not easily provide an opportunity for collaboration. Taking part in the collaborative lessons required international students to participate in the last 30 minutes of the Integrated English Speaking class for five weeks, communicate with each other and engage in collaborative activities synchronously and asynchronously throughout the above-mentioned five weeks.

The collaborative lesson activities were designed to support students in the creation of authentic texts, through organized collaboration and the co-production of knowledge. For this e-learning project, students were asked to (1) research what information was presently made available to new students at Okayama University, and then to (2) create a presentation based on something they thought would be beneficial for new students. The task of creating authentic texts was chosen in order to increase and sustain student motivation and engagement. Students worked collaboratively throughout the course, but they submitted individual final assignments, based on their own choice of topic. The international students' final presentation was completed in Japanese, while the Japanese students' was in English. The students agreed to make these presentations available online for the benefit of new students at Okayama University.

4. The Study

The practice of the collaborative lessons was undertaken in the Spring Semester of 2014. The students included 28 Japanese undergraduate students who were taking an Integrated English Speaking class and 4 international students from the Intro-to-Intermediate Japanese class who volunteered to participate in these lessons. Students were put into groups with one international student in each group of 7 Japanese students.

As noted above, unlike the course in the previous study on collaborative lessons that Morioka et al. (2013) conducted, the classes were not managed within the framework of the already established lesson plans. A blended learning course was designed in which the students were required in groups to research, plan and design an online presentation for an e-learning project.

Due to the limited amount of lesson time available, some of Salmon's (2001) five steps were merged. The collaborative lessons through a blended learning approach were undertaken five times as follows:

Table 1:

Lesson	Content	Homework
1	An introduction to the project and its expected learning outcomes An explanation of *Edmodo* (LMS) use and guidelines for using online communication tools Student self-introductions The introduction of an online whiteboard *(Padlet)* to help students brainstorm, post topics and start collaboration Brainstorming for topics and group discussions	An online search for information about Okayama University (with URLs provided) The selection of topics
2	A demonstration of a model *myBrainshark* presentation in both English and Japanese An explanation of reasons for the use of *MS Word*, *PowerPoint* and *myBrainshark* The criteria for evaluating the final learner outcome is provided	The writing of a first draft of the presentation, using *MS Word* (emailed to teachers) Feedback is given from teachers by email
3	An explanation of *myBrainshark* software The peer review of group members' first drafts	The writing of a second draft of the presentation, including visuals using *PowerPoint* (emailed to teachers) Feedback is given from teachers by email
4	The peer review of group members' second drafts A demonstration for voice recording using *myBrainshark*	The completion of presentations using *myBrainshark* audio software
5	The sharing and evaluation of *myBrainshark* presentations	The online peer review and assessment of *myBrainshark* presentations (students were given numbers from a list a teacher had made having posted the list online, so that the evaluations would be anonymous.) Guidelines for assessment were provided. Students were asked to complete a questionnaire about the course. (see Table 2)

Topics that students chose to research and present included: shopping in Okayama, circles at Okayama University, sightseeing spots, Okayama University library, university cafeterias, leisure time, festivals in Okayama, how to cook various Japanese dishes, and the education system in Japan.

5. Results

An online questionnaire on the 'Collaborative lessons through a blended learning approach' was conducted at the end of the semester with 28 Japanese students and 4 international students. The results of

the Japanese students and international students are shown separately in Tables 2 and 3 below. After the 21 multiple-choice questions, a space was provided for further comments.

Table 2: Responses from the Japanese students

	Question	No 1	2	3	4	Yes 5
1	Are you a Japanese student or an international student?	Japanese 28				
2	Did you enjoy the collaborative lessons?	0	0	1	14	13
3	Did you like choosing your own topic for the course?	0	1	1	12	14
4	Did the course encourage you to communicate and exchange ideas with other students?	0	1	2	16	9
5	Would you like new students coming to Okayama University to see your presentation?	0	1	12	10	5
6	Was the feedback you got in class from other students useful?	0	2	6	11	9
7	Was it easy for you to give feedback to other students?	3	4	11	7	3
8	Did you use: ・your own computer 28 ・your own tablet 1 ・an Okayama University computer 7 ・your cell phone 14 ・Line 5					
9	Please check the things that were difficult for you: ・using a computer 9 ・using my cellphone 2 ・making a Word document 0 ・making PowerPoint slides 5 ・adding voice recording with myBrainshark 20 ・looking at instructions on Edmodo 6 ・submitting homework by email 4					
10	Did you look at the explanations / instructions for using myBrainshark on Edmodo	Yes=28, No=0				
11	Did you use the Internet to collect information (photos and text about your topic)?	Yes=28, No=0				
12	Did you meet any members of your group outside of class?	Yes=16, No=12				
13	Do you enjoy usual classwork or collaborative classwork more?	1	6	9	9	3
14	Do you find usual classwork or collaborative classwork easier?	5	11	7	5	0
15	Did this class give you an opportunity to interact with Japanese / international students in a way you don't usually?	Yes=28, No=0				
16	Do you feel more confident to speak with international students /Japanese students because of this course?	Yes=21, No=7				
17	Would you like more time to talk with international students / Japanese students?	Yes=22, No=6				
18	Do you think using technology helped you to make a good presentation?	Yes=28, No=0				
19	Do you think it was useful to learn how to use the technology we used in this class?	0	0	3	16	9

20	Would you prefer not to use technology – and for example, make a poster presentation?	Yes=6, No=22
21	Did talking to the international students / Japanese students help you to understand what skills you need to improve your English / Japanese?	Yes=24, No=4

Table 3: Responses from the international students

	Question	No 1	2	3	4	Yes 5
1	Are you a Japanese student or an international student?	International student 4				
2	Did you enjoy the collaborative lessons?	0	0	0	2	2
3	Did you like choosing your own topic for the course?	0	0	0	0	4
4	Did the course encourage you to communicate and exchange ideas with other students?	0	0	0	2	2
5	Would you like new students coming to Okayama University to see your presentation?	0	1	3	0	0
6	Was the feedback you got in class from other students useful?	0	0	1	2	1
7	Was it easy for you to give feedback to other students?	0	0	0	3	1
8	Did you use: ・your own computer 4 ・your own tablet 2 ・an Okayama University computer 2 ・your cell phone 2 ・Line 4					
9	Please check the things that were difficult for you: ・using a computer 0 ・using my cellphone 0 ・making a Word document 0 ・making PowerPoint slides 0 ・adding voice recording with myBrainshark 0 ・looking at instructions on Edmodo 0 ・submitting homework by email 0					
10	Did you look at the explanations / instructions for using myBrainshark on Edmodo	Yes=3, No=1				
11	Did you use the Internet to collect information (photos and text about your topic)?	Yes=4, No=0				
12	Did you meet any members of your group outside of class?	Yes=4, No=0				
13	Do you enjoy usual classwork or collaborative classwork more?*	0	0	0	0	2
14	Do you find usual classwork or collaborative classwork easier?*	1	0	0	0	1
15	Did this class give you an opportunity to interact with Japanese / international students in a way you don't usually?	Yes=4, No=0				
16	Do you feel more confident to speak with international students /Japanese students because of this course?	Yes=2, No=2				
17	Would you like more time to talk with international students / Japanese students?	Yes=4, No=0				
18	Do you think using technology helped you to make a good presentation?	Yes=4, No=0				

19	Do you think it was useful to learn how to use the technology we used in this class?	0	0	0	0	4
20	Would you prefer not to use technology – and for example, make a poster presentation?	Yes=1, No=3				
21	Did talking to the international students / Japanese students help you to understand what skills you need to improve your English / Japanese?	Yes=4, No=0				

*One student did not answer questions #13 &14, and another student answered "both" for them.

6. Findings

6.1 Digital literacy

The data from the questionnaire above clearly indicates that when using technology in a blended or online class, teachers should not assume that students are 'digital natives' (Prensky, 2001). As shown in Question #9 in Table 2, most of the 28 Japanese students said they had difficulty using some of the technology, including even their own computers and cell phones, although none of the international students did.

For digital literacy support, an introduction to the use of an LMS and Web 2.0 tools, explanations using screenshots to show the steps for various processes and a demonstration of a model example of the final presentation were given in class and also posted on the LMS. Students were given a teacher's email address so they could make direct contact if they needed any assistance with the technology. However, the survey results still indicate that the scaffolding to support students in their use of online technologies was insufficient for some Japanese students.

All students except one international student looked at the online explanations for the use of the LMS and the Web 2.0 tool, myBrainshark, and used the Internet to gather information. One hundred percent of students thought the technology helped them to make a good presentation. As shown in Question #19, all students in the class thought it was useful to learn how to use the technology. It is interesting that although twenty out of thirty-two students said they had difficulty using myBrainshark technology, twenty-five out of thirty-two still said they would prefer to use the technology rather than make a poster presentation.

One international student answering the survey, commented as follows:

> The myBrainshark activity was my first time doing anything like it. I thought it was such a very efficient and easy to way to a PowerPoint, by looking for information on the internet to use in the project and adding your voice to the presentation is a clever way to do it. Sometimes people get afraid to do presentations because of they are too nervous and of stage fright, but this counters their fear and makes it easier for them.

This clearly shows that the student recognized some of the affordances provided by the technology and appreciated the opportunity to develop more digital literacy.

6.2 Motivation

In terms of sustaining motivation, thirty out of thirty-two students liked or very much liked the opportunity to choose their own topic for the presentation. In the first study, Morioka et al. (2013) conducted, students expressed a wish to negotiate more of the class topics, peer group organization and time allotted for activities. It is hoped that by creating a more flexible learning environment through the use of a blended learning approach, that at least in part, students were given more flexibility and control of their learning experiences.

Motivation may also be enriched by increased interaction, facilitated by the blended learning environment. However, even with the affordances provided by online technology, only a limited amount of interaction was possible in our five-week course. This was made very clear because many students commented in the questionnaire that they enjoyed the class very much, but that there should be more classes in which talking to their international and Japanese peers were possible.

6.3 Collaborative activities and student engagement

The answers for question #12 show that not only did students use social learning tools to collaborate, but also more than half arranged to meet up outside of class time. The synergy between the constructive learning approach and the use of technology led students to engage with their projects and group members to the extent that they were willing to meet up outside class as well as use social software to collaborate.

One hundred percent of the students thought that the collaborative lessons gave them an opportunity to interact with each other in a way that wasn't usually afforded to them. Using a blended learning approach made student work more visible, and one Japanese student commented, "Other students' presentations were very good. I was able to realize what is good or bad to express my opinion." The collaborative lessons created an opportunity for both groups of students to collaborate and learn from each other, in a variety of ways and through a variety of medium. Twenty-three out of thirty-two students felt more confident to speak with the students who spoke their target language because of the course. Twenty-eight out of thirty-two students felt that talking to students who spoke their target language helped them to understand what skills they needed to improve in English or Japanese. One Japanese student commented, "This course made me realize that I need to study English (listening and speaking) if I want to talk with many people by using English."

Another international student answering the survey, commented as follows:

> As for the students I worked with (my group members), I am very glad and happy that I had members who were willing to help me and ask for help. Usually, a lot of Japanese students are very shy, so I assumed that it was going to be difficult. However, I was able to meet a few of my group members and help with their projects and their English. Likewise, they were able to help with my project and my Japanese. Out of that, I was able to become good friends with outside of classroom. Thanks to this project and this activity, I was able to make connections, friendships, and better my Japanese!

These comments indicate that the interaction between Japanese and international students in this blended learning course facilitated student engagement.

7. Discussion

The main objective for the collaborative lessons was to develop further possibilities for international and Japanese students to communicate, learn and collaborate together through the affordances provided by a blended learning course.

The e-learning project provided students with an authentic task requiring the development of language, digital and collaboration skills. These are indispensable tools, which are not only required for success in our students' present educational experiences, but may also be conducive to successful participation in our globalizing world. The use of an authentic task gave students the opportunity to make use of their collective knowledge to create something that offers practical help to students entering university after them. It is hoped that this experience will help students to recognize the significance of collaboratively produced and shared knowledge. The user-generated online materials that students created are evidence of their learning, collaboration and ability to communicate clearly. These materials will be used to create a repository of useful information which will be made available to students at Okayama University.

As Vaughan (2010) explains, in online / blended learning courses, students need ongoing support or scaffolding. There should be enough interaction to ensure that the learner can profit from efficient engagement in the learning environment without too many difficulties caused by technological problems. During the course students clearly demonstrated an ability to use digital skills for social purposes. However, it was clear that this ability had not been sufficiently transferred in order to effectively utilize the affordances digital skills can provide to learning. We would like to suggest that, although the data show that students are definitely interested in using Web 2.0 tools and may be comfortable having access via an LMS to their peers, course information and explanations, careful planning, the provision of guidelines and the construction of sturdy scaffolding is essential, in order to avoid a situation in which learners encounter technological difficulties which consequently may cause them to lose motivation.

8. Conclusion

As teachers at university level, it is our responsibility to guide our students, preparing them for active participation in our globalizing world by helping them to gain confidence, improve their communication skills and broaden their perspectives. Our study suggests that the collaborative lessons through a blended learning approach could play an important role in this process. Through interaction with students from other countries and cultures, students can become more aware of different styles of communicating, learning and living. They have opportunities to strengthen their linguistic and strategic communicative competencies by attempting to overcome any difficulties they encounter as they collaborate. If these activities take place within the learners' ZPD with adequate scaffolding and support from 'more knowledgeable others', they will surely enhance our students' confidence, improve their communication skills and help to broaden their perspectives.

In our ever-changing world, it is no longer sufficient for teachers to simply transmit knowledge. Teachers need to encourage students to become active, self-directed learners in order to contend with the difficulties they will face. The world we live in is complicated, interconnected, and dynamic. However, with the merging of formal and informal learning through blended learning, students can be empowered to participate more actively than they have before in their learning. The use of online tools is highly beneficial in terms of the personalization of learning and better time management with synchronous and asynchronous activities. When the benefits of these tools are combined with what McLoughlin et al. (2007) call the affordances of social software tools: connectivity, collaboration, creation, knowledge and information accumulation, and content adaptation, the development of a learning environment is enhanced. Genuine engagement is facilitated, with learners consequently feeling that their participation is mutually beneficial.

The use of a blended learning approach and the technological affordances that this approach provided, facilitated a new kind of interaction and engagement between Japanese and international students, supporting different modes of learning and collaboration. It increased engagement and opportunities for interaction, helped provide better learning efficiencies, allowing students to benefit from more flexible and personalized learning. It was also possibly a first step for some students to develop their digital literacy skills, enhancing their learning pathways.

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