Kansai-Hawaii Collaborative Video Project: Student-centered, authentic and project-based learning

Mary E.O. Kimura
Kansai University, Japan
mary_kimura@alumni.stanford.edu

Bert Y. Kimura[1]
University of Hawaii, USA
bert@hawaii.edu

Kenichi Kubota
Kansai University, Japan
kubota@res.kutc.kansai-u.ac.jp

Curtis P. Ho
University of Hawaii, USA
curtis@hawaii.edu

Since 2010, a graduate class, ICT for Learning, was offered to students at Kansai University. This class, taught entirely in English, employs modern pedagogy and instructional strategies that includes constructivism, project-based learning, authentic learning, and collaborative learning. This paper highlights one major assignment: To communicate, collaborate and produce a joint video with University of Hawaii graduate students.
Student teams selected their own ICT, documentation and video production tools. The instructors encouraged use of mobile applications since they afford mobility, convenience, low cost and flexibility. Videos were shared in a Google+ community and peer reviewed.
The authors reviewed student evaluation data, comments and informal conversations. The results show that the students are engaged in learning while increasing their intercultural awareness as they interact with Hawaii students. This case study revealed numerous factors that, when presented to students in an orientation, help ease the transition to an intercultural, online collaborative environment.

Keywords: ICT, project-based learning, collaborative learning, video production, web 2.0

Introduction

From 2010-2014, the authors taught a graduate class, ICT For Learning, at Kansai University in the Faculty of Informatics during the fall semester. In this class, faculty affiliated with the University of Hawaii engaged students from both classes to form teams that collaborated to produce a video that compares technologies and cultures between the two countries, Japan and the USA. The results presented described outcomes from the past four years.

This class evolved rapidly in response to changes in educational technologies and the continuing evolution of ICT and web 2.0 (O'Reilly, 2005) technology tools. Students in this class explored a range of technology tools and online resources for learning including social media, mashups, mobile games and language learning, mobile video editing, augmented reality, virtual reality, open educational resources (OER) and electronic books. For a final project, students designed a learning unit that integrated the use of web 2.0 tools in a collaborative context.

As economies, industries, politics, and travel have increasingly become global in nature, the authors thought that, in a present-day educational technology class, an online intercultural group project with students from two countries working collaboratively to produce a tangible artifact was relevant and appropriate. The emergence and availability of ICT and web 2.0 tools were easily integrated into this learning environment.

---

[1]CORRESPONDING AUTHOR: Bert Kimura, Professor Emeritus, University of Hawaii at Manoa, bert@hawaii.edu.

The purpose of this study was to document and understand the process of the emergence and maintenance of a virtual learning community in a cross-cultural setting in higher education. As such, the authors focused on the following questions: (1) What instructional strategies helped students to become engaged with an online collaborative learning project? (2) What factors contributed to student satisfaction and success? (3) What issues and concerns must be addressed when designing such learning projects?

Literature Review

Wegner postulated that learning is achieved largely through experiences by participating in communities and actively engaging in social interactions. Learning is more than just the acquiring factual knowledge. Rather, it is a process of people connecting to a community of practice through interaction with other community members (Lave & Wenger, 1991).

Online learning creates opportunities for active social learning behavior, through participation and interaction among students and faculty. Also, instructional environments that engage students in interactive and collaborative peer group activities contribute to better learning outcomes, including higher order thinking skills.

Since 1995, numerous studies identified potential benefits from the application of ICT and Web 2.0 tools in teaching and learning (Ertmer, et. al., 2011; Redecker, Ala-Mutka, Bacigalupo, Ferrari, & Punie, 2009). Such tools enabled learners to communicate and interact with their peers in forming a classroom learning community.

Likewise, Redecker, et. al., (2009) described a wide variety of educational initiatives that comprises Learning 2.0, or enhancing learning through the use of Web 2.0 technologies. Such actions have shown to help students develop or strengthen their reflective and evaluation skills (information management), collaboration and communication skills (networking), and result in pro-active attitudes, innovation and creative expression (critical and creative skills).

Ertmer (2011) and colleagues researched the use of wikis in a pre-service educational technology course and found that students achieved a wider view of working with diverse others when interacting online. At the end of the class, team members valued input from others, no matter where others were located and were from other cultures. Students appreciated and respected the differences of others and their cultural background. In addition, international collaboration using Web 2.0 technologies made pre-service teachers fully aware of the benefits (ease of use, relevance, and importance) that such technologies could provide in future classrooms.

Kim and Bonk (2011) also cited previous studies involving intercultural collaboration among higher education students. These studies generally revealed that online learners use different communication styles and patterns across cultures. Students may differ in their expectations as well. On the other hand, the discrepancy in active participation across cultures was lower in online discussions. The authors attributed these differences to cultural factors (for example, Japanese students are educated to listen quietly, rather than to speak up) and having had minimal oral communication practice.

Aoki & Molnar (2012) conducted joint classes over four years in which Hungarian students who were learning Japanese language and culture collaborated with Japanese speakers who were taking a media communication class. The students conducted group projects designed to compare and contrast cultures between the two countries. This study showed that challenges arose from the use of "softer" skills such as project management, interpersonal and intercultural communications, group collaboration, and time management rather than from inadequate technology skills.

Furthermore, a study to understand how effective collaborative groups formed in an online course indicated that instructional strategies appear to contribute positively to the effectiveness of small collaborative learning groups in the online environment. Such strategies include clear instructions and expectations, relevance, learner readiness, learner autonomy, monitoring and feedback, and scaffolding the instructional process (Brindley, Blaschke & Waiti, 2009).

Collaborative learning provides opportunities for authentic tasks that lead to deeper learning, and the higher levels of cognition described by Bloom (1956). Reeves, Herrington, & Oliver (2004) describe learning from collaboration on authentic problems as having outcomes "of the highest order, including improved problem-solving abilities, enhanced communication skills, continuing intellectual curiosity and robust mental models of complex processes inherent to the performance contexts in which their new learning will be applied."

Authentic learning through collaboration has components of using knowledge in real life, supporting collaborative construction of knowledge, promoting reflection to enable the formation of abstraction, articulating ideas to enable the explicit formation of knowledge and assessing the learning of tasks (Reeves, Herrington, & Oliver, 2002).

Therefore, instructional design for the ICT for Learning class was centered around intercultural collaboration and authentic learning pedagogical principles. Additionally, this class was taught in English to encourage improvement in written and spoken English. The students also gained familiarity with English terminology used in modern technology.

Methods

In the ICT for Learning class, students completed a five-week collaborative team video project (CVP) by producing a short video related to modern technologies used by students in Japan and Hawaii. The students employed a variety of Web 2.0 communications technologies such as *Skype, Dropbox, Google Hangouts, Google Docs* and *Facebook* to exchange information during the pre-production process. Each team met during a joint on-line orientation class session to decide how to communicate with all members of the team, and which technology applications to employ.

Participants
The Japanese class consisted of three to six master's degree students joined by undergraduate volunteers that were members of seminars taught by Kansai University faculty whose research interests included educational technology. The ICT For Learning class met once each week in the evening for two hours.

Hawaii students were generally completing their Master's degrees in educational technology, while the Japanese class consisted of both graduate students who were officially registered and undergraduate volunteers from the Faculty of Informatics.

The University of Hawaii class was conducted as an e-learning, or online class. Faculty met with the students online at scheduled intervals, typically every two weeks. The Hawaii students were enrolled in an online Master's degree program offered by the College of Education, Learning Design and Technology Department (https://coe.hawaii.edu/academics/learning-design-technology-ltec/about-ltec). Although the large majority of students were physically located on several Hawaiian islands, there were one or two students in every class that lived elsewhere: American Samoa, Germany, California and Japan, for example.

Project Design

Students received an orientation about time differences, academic schedules, technology access, levels of technology skills, language proficiency, cultural differences in communication techniques, decision-making and problem solving styles. For example, students were instructed to specify times by indicating Hawaii or Japan standard time.

Students were assigned to a team by the faculty. For the Japanese students, each team minimally consisted of one student with high English proficiency and one with good technology skills. Typically, there were 5-6 teams each year.

Following an initial joint orientation meeting in Blackboard Collaborate, a video conferencing application used at the University of Hawaii, student teams selected their own communication, documentation and video production tools. The instructors encouraged the use of mobile applications since they afford mobility, convenience, low cost and flexibility. In fact, a LINE group was established for students to communicate with each other and with faculty during the length of the project.

Commonly, a single individual incorporated video segments collected from team members in Japan and Hawaii and edited the final video. After five weeks, the finished video was uploaded to YouTube and linked to a Google+ community for sharing and review. Individually, students peer reviewed the final videos produced by other teams and commented asynchronously through this community.

A final joint meeting was held at the end of the fifth week. Each team talked informally to reflect on their experiences: What was learned, what challenges were encountered, and how they would improve this project for future learners.

Project Activities

The project timeline was slightly adjusted annually to optimize student time based on the semester calendar, class scheduling, non-instructional days and the number of teams. In general, instructors adhered to the following timeline:

Week 1: Initial joint meeting online using the Blackboard Collaborate virtual meeting room. Students introduced themselves and received a brief overview of the project description, goals, and anticipated artifacts. Students then met in teams using Google Hangout or Skype to further introduce and organize themselves, prepare a collaborative Google document that includes a communication plan, possible video themes, a timeline and a schedule of group meetings. ICT choices were left for teams to decide.

Week 2: Students meet in teams according to their group's implementation plans to discuss details of planned video, plan a storyboard and initiate a shot list.

Week 3: Teams meet to share completed video segments and decide how to edit their video.

Week 4: Teams share and assemble video segments and edit their video. The video editor uploads the final video to YouTube and a link is posted to the class Google+ community.

Week 5: Individually, all students review the completed team videos and share their comments about the videos. The project ends when students meet online together in Blackboard Collaborate to share reflections about the experience.

Project Evaluation

Respective faculty monitored student progress and difficulties by requiring weekly progress reports by modifying a Google document template. For Japanese students, weekly oral discussions were held during face-to-face class sessions.

To evaluate this project, particularly from the Japanese students perspective, Kansai University instructors provided questionnaires at the end of the semester with items specifically related to this project. Additionally, one instructor manually recorded notes during the final joint online meeting held at the end of the project. Each team openly discussed and described their experiences: Successes, challenges encountered, and suggestions for improving the project.

Responses collected to closed-ended questions were transferred into a spreadsheet, and mean values calculated for each item. Since the questions were included as part of the entire course evaluation, students were asked to respond to a simple list of items: (1) When I participated in the CVP, I learned about technology for learning; (2) I learned more about collaboration when I participated in the CVP; and (3) I learned about students in other countries. These items used a Likert-type scale, where response options ranged from strongly disagree (1 point) to strongly agree (5 points).

The instructor-recorded notes were reviewed for indicators of success, challenges, and to validate the numeric responses received in the course evaluation questionnaire. A representative sample of responses is listed the results section.

Results

The results obtained indicate that Japanese students were positive about collaborating with University of Hawaii students. They learned to deal with cross-cultural challenges, especially when using the English language as well as increasing their knowledge about their team members' cultures. Their knowledge and skills of using technologies for communications and learning increased as well.

Relevant data from course evaluation questionnaires conducted from 2011-14 are summarized in Table 1. Since the Kansai University instructional team members were frequently in contact with students having met once weekly face-to-face and engaged in online conversations as the need arose, as well as by monitoring team progress reports, the number of statements were kept to a minimum in order to minimize the length and time taken to complete the course evaluation questionnaire.

Table 1.
Evaluation responses to collaborative video project participation

YEAR	N	V1	V2	V3
2011	10	4.11	4.22	4.00

	N	V1	V2	V3
2012	5	4.00	4.20	4.40
2013	7	4.00	4.43	4.14
2014	16	4.69	4.56	4.56
TOTAL	**38**	**4.32**	**4.41**	**4.32**

N - Number of student respondents, mean score = 3.0, maximum score = 5.0
V1 - When I participated in the CVP, I learned about technology for learning
V2 - I learned more about collaboration when I participated in the CVP.
V3 - I learned about students in other countries.

Notable student comments collected in 2014 from comments made during the final online meeting with all students included:

- Japanese members understood the importance of communication with Hawaii. LINE was a good tool for them. Using LINE gave them time to learn about each other.

- Having first meeting earlier helped. They divided the role of work clearly, decided deadlines and kept to their deadlines.

- Hawaii team members noted they always got things done one week earlier and worked well together. They met consistently on Google Hangouts. Used small talk at every session. Something to break the ice.

- The Hawaii team's challenge was not using slang, speaking slowly to be understood. The chat box [in Google hangout] helped. Sharing Google docs was challenging. Learned the need to put documents in a folder.

- Made friends around the world. Group worked well together.

- Worked together completing parts. Google docs helped. Develop relationship as a team. Everyone shot videos on time.

- Learned how to collaborate with different age students and different countries. Hawaiian students were kind, so easy. Older people usually difficult to communicate with, but Hawaii students were clear, kind with good ideas and supported the Japanese side.

- Learned how to collaborate across, culture, countries and with different ages.

- Learned how to collaborate, deal with time difference, would be nice to always meet with entire group.

Figure 1 provides examples and links to sample videos posted on YouTube.

QR Code in Japan and Hawaii
http://youtu.be/WuT8pfYiS6Q

Day in the Life of Social Media
https://youtu.be/dspU10BB7tk

The Use of ICT in a Day

Smart Phones Change Our LIFE!

| http://youtu.be/cQxd9Cq5tWs | http://youtu.be/BqO3sisFFc4 |

Figure 1. Examples of Completed CVP Videos

Discussion

Though limited in quantity, fixed-response items to the evaluation questionnaire suggest that participants responded positively to the project activities, learned the importance of ICT technologies for collaboration, learned what skills are needed when collaborating and increased their awareness of another culture.

The authors realized that students who participated in the CVP eventually recognized that leadership, time management, scheduling in different time zones and selecting tools that best facilitated communication were important in cross-cultural teamwork. A good leader helped to facilitate teamwork and provide direction for the project. One student expressed the desire "to study English more so I can be a leader of this project." The quality of the final video artifact often reflected the leadership and ability of the group to work as a team (Kimura, Kimura, Ho & Kubota, 2012).

Due to their busy personal schedules and the difference in time zones, students commented that finding the time to communicate was the biggest challenge. One student stated that "dealing with time differences" was important when collaborating online. Others informally agreed. Nevertheless, instructors noted that they adopted various strategies for communicating effectively based on available group resources and technical skills of the team members. Students found ways to overcome the time difference through use of asynchronous communication tools. All groups achieved the initial project objective (preparing a short team video about technology use in Hawaii and Japan) successfully.

Although a previous article stated that the difficulties with technologies generally inhibit participation in online communities and thus negatively influence performance (Guldberg & Mackness, 2009), our experience suggests that the Japanese students' oral communication skill (e.g. "small talk") as well as learning to interact and collaborate with other group members were factors influencing their success.

Japanese students stated that learning to speak English actively and without fear aided their communication. Another stated that the project provided a "nice practice to improve my ability to use English and web 2.0 tools." When synchronous communication proved difficult, some students resorted to asynchronous tools that allowed for language translation and provided more time to compose replies.

From our experiences over the years and by observing how teams formed, we surmise that two useful conditions that needed to be in place prior to organizing team meetings were (1) preliminary activities and orientation for team building and (2) establishing a clear structure and project guidelines, with practical examples.

In summary, our work supports previous studies that postulate that "softer" skills such as time management and communication skills, as well as appropriate instructional design strategies including clear instructions and expectations, relevance, technology readiness, learner orientation and scaffolding helps students succeed in online collaborative learning environments (Aoki & Molnar, 2012; Brindley, et. al., 2009).

Conclusion

Over the past five years, the authors gained insight about how online communities evolve and the strategies to maintain them, appropriate instructional strategies to enable students engage in online collaborative activities, and a good understanding of factors that contribute to student success.

In this case study, Japanese and Hawaii students were positive about their participation in the collaborative learning project. They learned to use communication tools appropriately, improve their collaboration skills, and learned more about their counterparts' culture. Despite challenges encountered by Japanese students when collaborating in English, these activities provided authentic, online collaborative situations for students to use web 2.0 tools to increase their intercultural awareness. The Japanese students overcame many difficulties, including language and a 19-hour time difference, through perseverance, effort, and the desire to communicate in English in order to produce a team designed multimedia artifact.

The results presented is limited primarily to that obtained from Japanese students. Additional evaluation data from Hawaii students would help compare and contrast experiences from both countries. If a similar project were held between Japanese students and another Asian nation, the authors would be interested to know if a similar set of best practices would result.

To further confirm the validity of the arguments presented in the discussion, a formative evaluation will be conducted separately from the course evaluation one week following project completion. This evaluation will be administered to both sets of students and include a wider range of items such as their perceived technical, collaborative, and language skill changes before and after the project. A small group of randomly selected students will be interviewed to cross-validate questionnaire data and to elicit in-depth perceptions to substantiate the overall instructional design.

References

Aoki, K. & Molnar, P. (2012). Cross-cultural project-based learning using social media: Lessons learned from the four-year experience of international joint class between Hungarian and Japanese students. *INTED 2012 Proceedings* (pp. 1983-1988). Valencia, Spain: IATED.

Bloom, B. S. (Ed.) (1956).*Taxonomy of educational objectives: The classification of educational goals: Handbook I, cognitive domain.* London: Longmans, Green.

Brindley, J., Blaschke, L., &Walti, C. (2009). Creating Effective Collaborative Learning Groups in an Online Environment. *The International Review of Research in Open and Distributed Learning, 10*(3). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/675/1271

Ertmer, P. A., Newby, T. J., Yu, J. H., Liu, W., Tomory, A., Lee, Y. M., Sendurur, E., & Sendurur, P. (2011). Facilitating students' global perspectives: Collaborating with international partners using Web 2.0 technologies. *Internet and Higher Education, 14,* 251–261.

Guldberg, K. &Mackness, J. (2009). Foundations of communities of practice: enablers and barriers to participation. *Journal of Computer Assisted Learning, 25*(6), doi:10.1111/j.1365-2729.2009.00327.x

Kim, K.-J. & Bonk, C. J. (2002), Cross-cultural Comparisons of Online Collaboration. *Journal of Computer-Mediated Communication, 8:* 0. doi:10.1111/j.1083-6101.2002.tb00163.x

Kimura, B. Y., Kimura, M. E. O., Ho, C. P., & Kubota, K. (2012). Authentic learning and collaboration with web 2.0 technologies. *Japan Association for Educational Media Studies Kenkyukai 2012.*

Lave, Jean & Wenger, Etienne. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge. New York: Cambridge University Press.

O'Reilly, T. (2005, September 30). What is web 2.0. Retrieved from http://oreilly.com/web2/archive/what-is-web-20.html

Redecker, C., Ala-Mutka, K., Bacigalupo, M., Ferrari, A., & Punie, Y. (2009). Learning 2.0: The impact of web 2.0 innovations on education and training in Europe. *Joint Research Centre, Institute for Prospective Technological Studies.* Retrieved from http://ftp.jrc.es/EURdoc/JRC55629.pdf

Reeves, T. C., Herrington, J., & Oliver, R. (2002).Authentic activities and online learning. *Higher Education Research and Development Society of Australasia, Inc.* Retrieved from http://researchrepository.murdoch.edu.au/7034/1/authentic_activities_online_HERDSA_2002.pdf

Reeves, T. C., Herrington, J., & Oliver, R. (2004).A development research agenda for online collaborative learning. *Educational Technology Research and Development, 2004, 52*(4), p 53. Washington, D. C.: Springer