

〈研究ノート〉

Google Classroom as a new technology in the classroom

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教室での新技術としてGoogle Classroom

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Abstract

This research paper presents a case-study of the introduction of a specific software technology, Google Classroom, into a College course syllabus. This case study represents an example of an innovation successfully diffused in a foreign language learning environment. The research details one potential use of Computer Assisted Language Learning (CALL) at Niijima Gakuen Junior College, hereinafter referred to as Niijima College.

The success of the application of this software is judged by the experiences and reactions of the students, and of this researcher by way of questionnaire and observations of student collaboration, peer-support, and completion of assignments and tasks. This paper presents the first English language CALL research at Niijima Junior College and will hopefully lay the foundation for future use of and development of CALL at the college. The paper adds insight into how relatively cheap and easily accessible computer software can be adopted at the tertiary level for localized and appropriate student-centered learning. A notable outcome of this potential adoption is the successful diffusion of the technology, namely Google Classroom. The paper will use the recorded observations and results from this paper to plan and implement the same

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course for the 2017 Spring Semester, planning and design more appropriate class-specific Google Classroom applications for better student learning experiences.

Computer Assisted Language Learning (CALL) at Niijima College

It is essential that this research paper be correctly placed within the existing notion and pedagogical theme of the application of CALL within the College. The College offers several dedicated courses in its Career Design curriculum, including *Business & IT* (Information Technology), and *IT Engineer*. The content of these courses, and some content in non-dedicated IT courses includes web design, databases, and computer graphics. However, these courses are only offered in Japanese, whereas the global Internet is mediated principally through the English language. Wikipedia (Wikipedia, 2016) states that the half of the homepages of the most visited sites on the Internet are in English, with varying amounts of information available in many other languages. A measure of the content languages for websites reveals that as of March 2014, English accounted for 53.6% of all content language, whereas Japanese accounted for 5.1% of all content language (Wikipedia, 2016).

An important consideration in the use of computers and technology at Niijima College is how such a syllabus would attune itself to the educational philosophy of the college. The Niijima College Department of Career Design exclaims that it 'empowers the student to think about how she (or he) would like to live and the kind of work she would like to engage in.' (Niijima, 2016). The department encourages each student to establish values, enhance their abilities, and carefully think about their life. Students are to be educated with fundamental skills necessary to succeed in contemporary society, deepen knowledge, and nurture curiosity. Additionally, each student personalizes a curriculum that best suits her (or his) present and future needs. One prime important present and future need is IT skills, especially with the monopolization of the Internet in English as detailed above. The Department of Career Design emphasizes 'Five Strengths' of its educational compass. Firstly, two years of careful consideration to contemplate and begin realizing specific jobs and / or career goals are given. Secondly, students freely select courses and "design" their own unique curriculum. Thirdly, an "At Home" learning environment is promoted due to its small size, and as such the department's faculty and staff are friendly, accessible, and approachable. Fourthly, generous support in the form of seminar faculty and the Career Center offer support with finding employment and transferring to four-year universities. Fifthly, students wishing to reconsider their lives and careers can acquire alternate strategies and new ways of

thinking (Nijjima, 2016). As such, there is a need for Nijjima College students to be given basic provision in CALL through English. Using technology in English instruction would allow students to enhance their career prospects in an ever-increasingly technologically dominated world.



Figure 1

Source (Nijjima College, 2016)

A further indication of the level of CALL at Nijjima College, is the provision of dedicated computer provision. As of December 2016, there are several dedicated computer room facilities at Nijjima College, as per Figure 1. There are two large rooms with over 20 computers in each. The rooms are equipped with portable whiteboard style projectors and screens, and Wi-Fi access. Each student has a monitor, keyboard and USB docks. The teacher has access to two computer screens and a classroom projector. The teacher also has access to an additional stand-alone screen which they can use for additional work, or in-class editing.

In terms of academic research, very little research has been conducted at the College regarding technology or even the use of computers in class. Hanada (2005) details 'The Case Study of Information Systems in the small scale Organisation', though more pertinent to the college's administration system than student usage of technology. However, this research note detailed the use of *Netcommons*, a content management systems (CMS) at Nijjima College, or Nijjima Women's College as it

was previously known at that time of the research note. Hanada (2005) reported on the introduction of *Netcommons* to support intellectual collaborative working, which allows users to effectively share knowledge and information on the Internet. In 2005, it was expected that CMS would evolve into a system which support collaborative learning and working, such as virtual offices and virtual classrooms. As of 2005 Niiijima Women's College had adopted *NetCommons* as the IT infrastructure of the whole college and utilized it in education, alumni activities, and faculty development. In other locations, *NetCommons* aspires to study, support and further promote an emerging trend, community-based networking and communication services that can offer a complement, or even a sustainable alternative, to the global Internet's current dominant model. At the student level, *NetCommons* is vastly different to more student centered learning environments such as Google Classroom or Moodle. Moodle is the acronym for *Modular Object-Oriented Dynamic Learning Environment*, which allows for extending and tailoring learning environments using community sourced plugins. Moodle is an Open Source Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE) (Moodle, 2016). The Moodle website states that the software has become very popular among educators around the world as a tool for creating online dynamic web sites for their students, used by 79 million users around the world (Moodle, 2016). Google Classroom, which was launched in 2014, is a blended learning platform for schools that aim to simplify creating, distributing and grading assignments in a paperless way. (Google, 2016).

2016 Tuition Questionnaire (Student Anketo)

After detailing the level of CALL at the college, it is pertinent to ascertain the opinions and feedback of the students, who are ultimately the subjects and prime stakeholders in the arena of learning that takes place at the college. In a wider perspective of the College's student's attitudes, the University annually gathers data in the form of a Student Survey about classes, resources, lesson content and teaching staff, translated as 'Spring Semester Class Questionnaire'. The survey asks students to rate their experiences within the college based on twelve gradable statements based on teaching practices at Niiijima College. Although no statements were asked directly about the use of technology in the classroom, some of the statements are useful as an analysis of teaching practices that may be affected by

the technology in the future. In addition, this questionnaire was given to the students in this study after they had nearly completed the spring syllabus, having received the fifteen week Google Classroom syllabus, which may have positively influenced student's reactions to the use of CALL in the classroom.

Table 1 below shows the differences between the average score amongst all taught classes at the college and the class, for appropriate questions related to this study. Evaluations of each statement are graded by the students out of 5, with a score of 5 being the highest. Although the sample sizes are incomparable and offer no statistical correlation, the purpose of this illustration is to show what a teacher should aim to address if using technology in the classroom. The term 'Average' in the table refers to the average score amongst the student body at the College who filled out the questionnaire, which was about 2000 responses for each question. This refers to the fact that students are asked to record a questionnaire for each class they are enrolled in, resulting in multiple responses.

Selected Evaluation criteria	Average	Study Group	Difference
<i>Q2. Classroom materials and devices</i>	4.15	4.75	+0.65
<i>Q3. Syllabus content followed</i>	4.34	4.25	-0.09
<i>Q5. Enthusiasm felt in class</i>	4.41	4.25	-0.24
<i>Q6. Teachers materials and devices</i>	4.08	4.00	-0.08
<i>Q7. Teachers voice and speed</i>	4.31	4.50	+0.19
<i>Q8. Lesson stirred curiosity</i>	4.07	4.25	+0.18
<i>Q9. Expected learning outcome achieved</i>	4.10	4.00	-0.10

Table 1: 2016 Semester 1 - Student evaluation scores

Although the differences between the Average figures and the Study Group are very small, they show some pattern connected to technology infused lessons. Question 2 on the survey asks students about the *availability and use of classroom materials and devices*, such as the use of whiteboards, projectors, and computers. The average student score of 4.15, compared to this studies group score of 4.75, reflecting the positive response to the use of technology in this research's study group. In addition, the class scored the *teachers oratory presence* in Question 4, and the *curiosity stirred within each lesson* by the teacher as higher than average, the latter undoubtedly due the use of computers within class. I believe that they students

rated my voice projection as higher than average as many instructions would have repeated by myself as the students saw the same information on their screens, reinforcing their understanding and comprehension of tasks and activities. Lastly, the students responded positively to Question 9 that the *lesson learning outcome was achieved*. Of note is the fact that amongst this small sample of questions, all students rated the classes on average above 4.0 out of a possible 5.0, indicating students are highly satisfied with their classes. The importance of considering the student questionnaire is that teachers need to be aware of the attitudes and opinions of the students on a continuous basis, to elevate the students to subjects of the learning process rather than merely objects to be taught. Invoking the notions of the 'banking of Education' as outlined by the Brazilian educator and activist Paulo Freire (1970), it is imperative that students are firmly placed within the learning process as active agents, being helped to become self-directed learners. This approach is necessary when considering the education philosophy of the college itself, as outlined above. Although it may seem problematic to compare the values of a Christian faith based college with that of a Christian-socialist and sometime Marxist educator in Freire, both exude the values of the student empowering themselves to think about their future career or life paths, to establish their own values, abilities and to think carefully about their own lives. Self-realization is a key quality espoused by the both the college and Freire in his teachings and writings. This short analysis of the questionnaire nevertheless reveals a positive leaning towards the use of technology the classroom, albeit one which is still in development across most of Japan.

Diffusion of Innovation

The uptake of Google Classroom as a technological innovation represents a diffusion of innovation, first outlined by Rogers (2003) in his book *Diffusion of Innovation*, originally published in 1962. Originating in his research as a rural sociologist in 1950s U.S.A., Rogers proposed five steps in the decision-making process of an individual or institution in an adoption or implementation of an innovation. Rogers argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system. Rogers (2003) detailed how diffusion occurs through a five-step decision-making process that include awareness, interest, evaluation, trial, and adoption stages. In later editions of *Diffusion of Innovation*, Rogers changes his terminology of the five stages to;

knowledge, persuasion, decision, implementation, and confirmation. In later editions of Rogers' book *Diffusion of Innovations*, carry a total of five categories of adopters to standardize the usage of adopter categories in diffusion research; namely innovators, early adopters, early majority, late majority and laggards. Rogers's notion of diffusion offers a simple and easy measurement to assess how well and innovation is rejected or accepted over time. A definition and graph of Roger's Diffusion of Innovation S-curve graph is seen in Figure 2 below. This figure also illustrates that the adoption of an innovation follows an S curve, a mathematical function that plots real input values and has a positive derivative at each point.

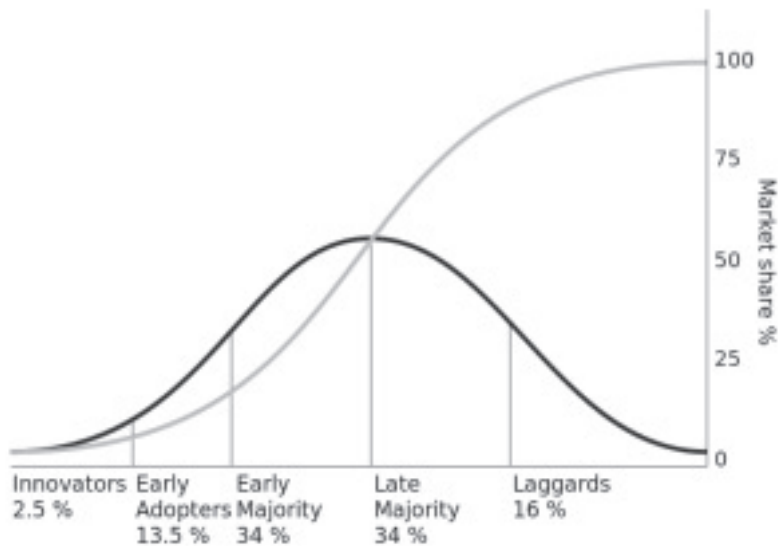


Figure 2 - 'Diffusion of innovations' graph

Source Wikipedia (2016)

Figure 2, based on the original found in Rogers 1962 book 'Diffusion of innovations', shows the diffusion of innovations typically associated with the introduction of an innovation. The graph shows that with successive groups of consumers adopting the new technology (shown in the lower line) its market share (shown in the upper line) will eventually reach the saturation level (Rogers, 2003).

In the case of this study, it was pertinent to use this as a model for this research paper. Google Classroom can be considered an innovation in that it a simple

definition of innovation is 'a new idea, device, or method' (Merriam-Webster, 2016). Subsequently, this research paper confirms this to the audience of this paper, peer teachers in similar settings, that the observations and findings presented here offer teachers some insights into the value of one online activity; how it could aid teachers save time planning lessons, aid homework tasks, and introduce some useful functions and resources for the average college teacher.

In March 2016, at the start of the first semester in the 2016 Academic year, I enquired within the Career Design Department to Richard Mahar, a Niijima College Assistant Professor and my de facto mentor, about the potential use of using an online learning platform such as Moodle or Google Classroom. Richard swiftly contacted Professor Otsuka, of Niijima College, who had already started to set up a Google Education account for Niijima College and subsequently set up a Google Classroom account for myself. This very fortuitous event was perfectly timed, without any direction from myself, at the start of the course, and enabled my slightly vague enquiry to become fully realized as a new learning opportunity and tool within the syllabus for the first semester. Professor Otsuka positively encouraged my hesitation about using Google Classroom, as I had never used it before, reporting that he had navigated the home screens and administration pages and thought it was very easy to use and manipulate. With this positivity in hand, I accessed the software a week before the course started.

Constructing a Google Classroom syllabus

Google (2016) states that *Google Classroom* is a free web-based platform that integrates various applications into one platform under the umbrella of Google Education. *Google Classroom* is accessible using the web on a computer with any modern browser such as Chrome, Firefox, Internet Explorer, or Safari. Google (2016) states *Google Classroom* 'Saves teacher's time...fosters communicate and collaborate, and has easy support for administrators'. Some of these points include an easy set up process, less time and paper, better organization, enhanced communication, it works with other Google software applications and it is affordable and secure.

The first step in constructing a Google Classroom syllabus was to access and set up the administration of the website. As this Google Apps account was set up through Niijima College, it is important to note that the email address is assigned by the administrator, in this class at Niijima College. Furthermore, it is important to

note that the College administration has access to any data stored in the account, including email (Google, 2016). Therefore, it is imperative that any teacher wishing to set up a similar account and webpage, needs to get approval by their institution, and abide by their rules of use.

The second step was to design the layout of the homepage, selecting a *theme* for the page in terms of colour and images, choosing from a set gallery from Google Images or using a chosen image by oneself. This connects to an extremely useful feature of Google Classroom is that it allows and promotes the seamless transfer of Google Images and YouTube, due to Google being the Parent owner company of YouTube. YouTube offers users the ability to embed any of their media on any page on the Web, which allows the embedding of YouTube videos in social networking pages and blogs, and by default Google applications, such as Google Classroom. For this reason, YouTube videos can be directly uploaded to Google Classroom, unlike other LMS domains.

The third step was to plan and render the planned textbook-based syllabus and lesson plans to one displayable and manipulatable on Google Classroom itself. Unlike other LMSs and educational devices, Google Classroom is strongly supported by its parent website *Google for Education* within Google.com. Tapping into the visual dynamics of the Google interface and websites, very easy-to-follow videos have been created to help beginners manipulate Classroom for their teaching. The textbook-based syllabus and lesson plans had been used for the previous two academic years, and due to my unfamiliarity with Google Classroom I decided to initially teach the same content in case that there was a problem with using Google Classroom, ensuring that at least a backup paper based plan was available. As such, I only constructed the first two week's lesson plans from textbook to digital versions endeavoring to ascertain how the students fared at the outset of the course, and being ready to either maintain the lesson style or adapt to the new technology. The students were still required to purchase a designated textbook for the course as it was unfeasible and in breach of copyright laws to scan each page and add to the website. I added a *class resource* page to detail the class syllabus for the semester, along with course administration basic notes about expected attendance and grading. Google Classroom already includes a calendar by default that updates with work and due dates, and allows students to view upcoming work in the class stream, on their work page, or in the class calendar.

Once the syllabus had been roughly planned and the actual website set up, planned and structured, it was imperative to plan at least two classes in advance of the approaching semester. It is useful at this point to detail the first two lessons of the syllabus as an example of what the rest of the course was made up of. I was conscious to add a high degree of consistency to the syllabus and lesson design, to provide a stable learning experience for the students with tasks and activities that they would quickly become familiarized too, in the hope of not evoking boredom, but avoiding confusion. By sticking to a similar lesson plan every week, students would know what was expected in each class and what they would need to do to achieve that. As stated above, the lesson content would be drawn directly from the course textbook, but in a digitalized version.

'Lesson 1', the label given to the first week of the syllabus, contains an *announcement and assignment*. The *announcement* directed students to look at selected pages from Unit 1 of the textbook to work through pairs or small groups. As the teacher, I used this announcement to direct their attention to the selected foci of study within Unit 1, but prompting them to work through the tasks together. Once they had been observed to complete each part, we checked their answers in plenary. This type of activity was set for the first sixty minutes of class, for students to take in and gather background information about the theme of the unit. The students were told that they could use their own dictionaries, textbooks, or internet resources such as Weblio or Wikipedia to gather appropriate information.

The second activity of the lesson was to create an E-Book for the remainder of the lesson that would summarize their thinking and allow them to express their own individual thoughts about the issues raised. A pre-determined answer was posted to the first lesson in this Google Classroom page, asking students through the *assignment* task to present their own 'Self-Introduction'. As well as being the second task of the lesson, it had to be finished for homework, to present to the other students in the next class. Google Classroom allows teachers to customize assignments, so this first assignment was given a one week deadline for completion by the next class, which was visually apparent in the task on the screen and was automatically posted as a due assignment in a class stream, which listed initially this first assignment, when it was due, the maximum gradable points for the task, who had completed it and each student's individual grade once the task was completed.

The second week lesson plan started with an *announcement* for students to make

a short presentation to each other, using their E-books from Week 1. Each student had completed the homework, allowing me to grade their work, digitally return it with annotated comments and automatically transfer the grades to a grade book, which I allowed students to see throughout the syllabus. The remainder of the lesson followed the first week, in the posting of an *announcement and assignment*, in the designated sixty/thirty-minute split, with some time needed in the first section to allow for the presentations of the first homework. In the second week, another assignment was created as a short homework exercise for completion by the following week. This pattern in the second week adhered to the first week and would be duplicated and used for every subsequent week of study.

Within each week of the remaining lessons, some tailoring would be employed to make each lesson and the content appropriate to the book and to add some variety to the study plan. Some additional activities through the semester included video posting, YouTube viewing, an Internet article report, the uploading of photographs, music videos and short movies, all in compliance with Google's authorization of such media. The fact that the students uploaded content through Google classroom only from Google and YouTube confirms this issue. The duplication of lesson plans, with the ease of duplicating announcement and assignments allowed me to save a lot of time making a visually informative syllabus and added a high degree of consistency to the page. In addition, the ease of using and administering Google classroom, facilitated my own personal enthusiasm for this 'project'.

Student Performance

To assess the success of using Google Classroom as a learning system and tool, it is necessary to evaluate how the students used the system and how they addressed the tasks, activities and homework set and assigned over the semester. Over the fifteen-week Semester, I set up fifteen lessons for each week and one final E-book report that incorporated the fifteen weeks together in one digital E-Book compilation. This system was designated by myself as the 'teacher' as the most appropriate for the course, as I didn't know the technological expertise of the students and I felt that I only had fifteen weeks with new students to manipulate and utilize the technology provided in the classroom.

In the first instance, the students were more passive as they didn't upload any media themselves, even though they had the option to. They incorporated media

into their E-Books with YouTube links, images and various other videos. However, they didn't post online within the course Google Classroom. They weren't explicitly told to do this, but at the same time they lacked knowledge, confidence or authority to do this. It is uncommon for a student to be allowed to directly post videos or images onto the course webpage, which is automatically assumed to be the sole domain of the teacher, who functions as the course and website administrator for their class. This is a prime example of notion proposed by Freire (1970), in his book *Pedagogy of the Oppressed*, "Education becomes an act of depositing, in which the students are the depositories and the teacher is the depositor" (p.73). Freire's notion is summed up by his term of the 'banking' concept of education, in which the scope of action allowed to the students extends only as far as receiving, filing, and storing the deposits. The traditional classroom promotes this notion, in which the teacher teaches and the students are taught; the teacher thinks and the students are thought about; the teacher chooses the program content, and the students (who were not consulted) adapt to it; and the teacher is the subject of the learning process, while the pupils are mere objects. From this notion, it is important to attempt to lessen the authority of the teacher, and strive towards being a facilitator in the classroom.

As mentioned before, I directly set out the terms of the course by way of setting the textbook, the medium of study (the textbook and a personal computer), when and how to study, and how students would be graded. Although I would have preferred to give more control to the students, I felt that with limited time and exposure to the students, in terms of one contact lesson a week, I needed to set the parameters of the course. However, by providing such technology the class offered students more opportunity to collect information using their own curiosity, rather than limited to a textbook or worksheets within class, that they could present their ideas in a different format, and that the openness of Google Classroom gives the student more control over their own learning time. With an online learning management system, the students need to be more aware of what it is expected of them and they have greater opportunity to control their learning.

As such, it is important to analyze the students' performance within the course. As stated above, over the fifteen-week Semester, I set up fifteen lessons for each week and one final E-book report that incorporated the fifteen weeks together in one digital E-Book compilation. Then ten homework assignments were made from

the fifteen-week semester, with the final submission of an online E-Book compilation of this homework. Table 2 shows the timeliness of student E-Book submissions over the course.

	On time	+1 week	+ 2 weeks	+ 1 month	>1 month
E-Book 1	1	3	1		
E-Book 2	2	2			1
E-Book 3	4	1			
E-Book 4	4	1			
E-Book 5	5	0			
E-Book 6	2	2	1		
E-Book 7	5	0			
E-Book 8	4	0		1	
E-Book 9	4	0	1		
E-Book 10	5	0			
Final E-Book	4	1			
Total	40	10	3	1	1

Table 2 – E-Book Submission record

Table 2 shows the positive submission deadlines of the students to assigned E-Book tasks throughout Semester 1. The first two weeks show some expected poor timing as students are a little unfamiliar with the course and the idea about submission by the Internet to the Classroom websites. Most submission delays in the first few weeks were down to students being unsure about how to submit, that they had lost their login details, or thought that they could submit their tasks at any time. The second week featured a presentation by each student of their initial work, which I purposefully hadn't informed the students that this would take place. The net result of this was that the three students who hadn't completed the homework on time were therefore unable to complete the presentation in class and had to complete it for the week after.

Within two weeks of the course commencement, the E-book submissions were much more timely as students got used to the system in operation, what was expected of them in terms of submission due dates, the fact that they had to grade each other's presentations in the next class after the submission deadline, which

instigated a gentle peer-group motivational atmosphere to complete work. This fact is important in that I chose to grade the work online by myself as the teacher, fitting the traditional assessment expectation of the class, but also assigned time at the start of each class following a homework submission task, for students to present their finding to each other. The result of this was peer grading of each other's work that proved to be very effective in ensuring that homework was submitted on time, probably due in turn part because four of the five members of the group were very good friends and softball team members with a strong sense of comradery and familiar enough with each other to remind each other to complete the tasks. Some gentle teasing of each other's work rate was sometimes observed, but in a friendly and non-threatening way. The other member of the team was not within the close circle of the four other students, but was very timely in completing all homework tasks, never missing a deadline throughout the semester. This may have also provided some positive motivation to the other members to finish tasks in a timely manner. The timely submissions of E-Books meant that I could grade the students work and return it immediately and students could see their work and assessments grades throughout the course. At this stage of the use of Google Classroom, I chose to assess the students on both their timeliness of tasks, and the quality of the work produced. However, for this initial research paper, I selected only the timeliness of task completion to highlight the major advantage of technology over traditional classrooms, the automatic and very efficient submission, grading and return of coursework.

However, as noted above, students only ever met expectations of the course in their submission of work. They were not expected to manipulate the course website, or provide extra materials as they had little experience in online learning management systems. This was an unavoidable passive element to the course in which students were unable to directly navigate their own learning paths. In an ideal situation, students would take a much more active and full responsibility for their own learning. However, as stated before, The Niijima College Department of Career Design exclaims that it 'empowers the student to think about how she would like to live and the kind of work she would like to engage in.' (Niijima, 2016), and that '...students freely select courses and "design" their own unique curriculum.' Students are expected to empower themselves, and perhaps with greater training and support they could achieve such ambitions.

Student Reactions to Google Classroom

The class size of five students for this course was far too small to permit a valid quantitative study. In addition, this sample group comprised five female Japanese students aged 19-20 years old, of the same education level. The students represented a very homophilous group that cannot be said to represent typical University students in Japan. Instead, a qualitative case study of the student reactions to a questionnaire was more appropriate to this study and sample size. The five enrolled students completed a questionnaire set on Google Classroom itself, towards the end of the course in July 2016, to generate some discussion. All five students stated that they enjoyed using computers in class and that it was relatively easy to use them for class tasks and activities.

The students said that it was a new idea for them to use PCs directly within lessons, as they usually use PCs for homework report tasks, making PowerPoint presentations, and using the typical home and office software programs. Regarding *Google Classroom* itself, students are familiar using Google, YouTube and a whole host of social networking sites. Therefore, the students confirmed that they didn't find Google Classroom too difficult to initially navigate and start manipulating.

With regards to this course being an online version of the syllabus, the students enjoyed using computers to carry out the various tasks and activities, rather than a lecture style lesson. The students thought data collection was easier, it was easier to type their ideas rather than make a written report, and one student reported that using technology made her realize how bad her spelling was as Microsoft Word highlighted many errors as she typed her tasks and homework. The use of 'E-Books' was also well received, with a great deal of peer cooperation and teaching taking place between the students. One comment made was 'I learnt a lot from my friends how to use PowerPoint and it was fun making the books in class. I didn't know you could make fun books like that'. Another student said 'Making the E-Book in each class was difficult for time, but after three or four lessons it was easy', and 'Making E-Books in class was good. I could start in class and finish at home. It was easy to remember what to finish for homework and I could send the homework before the next lesson. Then I could relax!' Students also commented about submitting their work and receiving grades, 'It was easy to send the files to Google, and Mark gave us grades very quickly', relating to the online marking element of Google. Some technical issues were raised, 'I had some problems sending some files at the start',

and 'I was worried I might lose my files. I saved my files on my USB stick too'.

Conclusion

It was found that the students enjoyed and benefitted from the use of this software, and were very positive about its use as a language learning tool. From the informal chat based reactions to Google Classroom it is apparent that the students enjoyed the use of computers in this short syllabus. The students enjoyed working both alone and in a group as they could gather information quickly, view each other's work on Google itself, be shown how to make E-Book presentations, know when and how to submit work, and receive an assessment and grade before the next class and through the website. In this way, they could view their ongoing grades too. However, some concerns were raised about the transfer and storage of data.

As the author of this research paper, I observed more active, collaborative and interactive students within this class than observed in many previous traditional classroom environments. A very comfortable learning environment was established between the five students, resulting in a high degree of peer support and teaching. An important point to raise though is that the heavy use of computers in the lesson, and the environment of a computer room could possibly lead to an 'edutainment' element to classes, whereby students enjoy the class more for the fun aspect of using a technology, rather than for the content of the syllabus itself. Teachers need to plan lessons that cater for the changing demands of society and education, but that also ensure that students are actively engaging both the content and technology. However, it is important to echo the Department of Career Design's 'Five Strengths' of its educational compass. As detailed above, one stated aim is that 'students freely select courses and "design" their own unique curriculum' (Nijima, 2016). Students should also begin to design their own curriculums within classes, in that this class empowers students to address specific ideas and notions, and that they are free to answer accordingly. They should not follow a set pattern of responses, but strive to adhere to another value within their educational compass, adhering to another stated aim of 'acquiring alternate strategies and new ways of thinking'. As a practitioner-researcher, I hope that my interest in CALL to improve my lesson planning and provide new or alternative opportunities for learning, will ultimately be passed on to students, ensuring that such empowerment in the transfer of responsibility of learning to the students themselves will adhere to the

notions of students being seen more as the subjects in the classroom, rather than mere objects, as per Freire's (1970) notion of the 'Banking of Education'.

An interesting final note about Google Classroom is that it offers the facility to *manage multiple classes and teach together*. Google promotes the fact that teachers can reuse announcements, assignments, or questions from another class. It can also share posts across multiple classes, and archive classes for future reference. In addition, teachers can co-teach a course with up to 20 other instructors. Such endeavors are not realistic now, but offer potential for both teachers and students to learn together, providing a new network of learning and cooperation.

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