the jaltcalljournal

ISSN 1832-4215
Vol. 8, No.3 Pages 197–209

Integration of iPads into a Japanese university English language curriculum

Marnie Brown
marnie-b@kanda.kuis.ac.jp

Joachim Castellano
jec712@alum.northwestern.edu

Erin Hughes
erin-h@kanda.kuis.ac.jp

Alexander Worth
alexander-w@kanda.kuis.ac.jp
Kanda University of International Studies, Japan

Tablet computers are a growing trend in education that has been gaining momentum since the introduction of the Apple iPad in 2010. This paper presents a case study at a Japanese university that investigated the integration of iPads into an existing English language curriculum. It reports on the experience of teachers and students using this particular tablet for several learning tasks in a Freshman English course. The tablets were used as a presentation tool, digital handout, Internet browser, transcription recorder, and media playback device. Data gathered from the study describe benefits and drawbacks of using tablet computers in the Japanese university ***EFL*** *context. In addition, teacher and student views on using tablets in class activities were gauged. The researchers used direct observations, video recordings of student use, and survey data from teachers and students. It also details the mobile applications that were used for the classroom tasks. While the iPads showed promise in collaborative projects involving media, connectivity, unfamiliarity, and incompatibility issues limited their effectiveness. Although only a few iPads were available for the study, the issues and results are considered from the perspective of tablet technology in general. Furthermore, the lessons learned here might provide additional insights into the broader implementation of mobile devices in language learning environments.*

Introduction

Tablet computers have increasingly been appearing in language learning environments. Students and teachers tote them to classes. Researchers discuss them at conferences. Administrators have not hesitated to

Forum

purchase them for schools. In this paper, the authors describe a research project in which five Apple iPad tablet computers were integrated into an existing first year English curriculum at a Japanese university.

According to a Strategy Analytics study, the iPad accounted for 68% of total global market share in the second quarter of 2012, followed by ones running Google's Android OS at 39% (Mawston, 2012). Of the Android tablets in education, the New Media Consortium's Horizon Report (2012) mentions the Samsung Galaxy, Sony S, and the Motorola Zoom have started to make inroads in schools. For example, the University of Southern Mississippi (USM) in the US has offered 1,000 Galaxy tablets preloaded with a mobile version of the Blackboard learning management system. According Homer Coffman in USM (2011), the university's chief of technology said, "Tablets are like the Swiss Army Knife to academic excellence. By leveraging this new technology, we are committed to transforming the way students interact, engage and learn in the classrooms" (p. 1). In particular, Apple's iPad has been dominant in the education market, especially in the US. For example, Apple had sold 1,000,000 iPads by the end of the June 2012 quarter alone, surpassing other tablet manufacturers and outselling traditional PCs for the first time ever in the K-12 market there. (Hughes, 2012).

Because tablets combine computing power with portability, they have become an attractive choice to replace aging personal computers. Administrators at the researchers' university in Japan were particularly interested in iPads replacing its current fleet of laptop PCs because they calculated an iPad's cost to be half that of a standard PC laptop. The researchers were then asked to investigate the appropriateness of the iPad at their university's English Language Institute (ELI). The ELI curriculum encourages the use of technology to enhance learning opportunities both inside and outside the classroom. In classrooms, a majority of tasks requiring technology were designed to be socially interactive. For example, students work in groups to prepare a PowerPoint presentation, watch and comment on videos, or conduct Internet research together. Thus the researchers were interested in whether or not the iPad could be integrated smoothly into the existing curriculum. Moreover, they were concerned whether or not tablet use in classrooms could support the English program's emphasis on, "Opportunity and promotion of different types of interaction, both face-to-face conversation and discussion, and also importantly, with the semiotic resources of the target culture(s)" (Kanda University of International Studies, 2012, p. 34). Additionally, the researchers sought to determine what types of support, in terms of infrastructure and training, would be necessary from the institution.

Results of the research will be used by the university administration for future purchasing decisions regarding hardware and other technology upgrades. Results will also inform teachers and material developers at the institution, as they can more fully understand the capabilities of tablets. Observations from this paper might guide others as they consider widespread adoption of tablet and other mobile technology at their respective institutions.

Literature review

The origins of e-learning stretch as far back as the 1960s. It has grown exponentially since that time, and seems to be a trend that is not likely to stop anytime soon (Murphy, 2011). The use and benefits of mobile computing, including laptops and netbooks, have been widely researched. However, the introduction of new mobile devices "which are smaller, lighter, more flexible, and potentially more interactive than laptops" (Warschauer, 2011, p.

117) now requires new research paradigms to investigate their efficacy in language learning. There has been a shift from "e-learning, to m-learning (mobile learning) and now, more recently, the idea of ubiquitous learning" (Murphy, 2011, p. 19). Mobile learning has become embedded into everyday life, and at present there are innumerable benefits for educators to using mobile technologies effectively (Sharples & Roschelle, 2010). Warschauer & Meskill (2000) identified the benefit of technology in the classroom as a resource to "better prepare students for the kinds of international cross-cultural interactions which are increasingly required for success in academic, vocational, or personal life" (ibid: p. 306). Tablets herald a new era in the way that technology, as a constantly evolving tool, can be used in the classroom and learning environments in general.

The introduction of tablet computers provide new opportunities for research "on emergent mLearning technology and pedagogy beyond distance education and small-screen mobile devices" (Brand & Kinash, 2010, p. 148). Ostashewski & Reid (2010) discussed how the iPad was useful in a small group context, with its video playback and multimedia database assisting the learning of a complicated folk dance. The study encouraged researchers to share best practices in order for tablets to be used as teaching and learning tools beyond this particular case. They argued that by sharing studies on the use of the iPad, researchers and educators will be able to disseminate the results and construct the best possible educational framework for use of this device in the classroom. Brand & Kinash (2010) noted that the introduction of Apple ecology (p.148) requires research about its use of mobile devices in higher education. They believed that "empirical research that tests educational efficacy, not only interface acceptance or popularity" (p. 148) is warranted. Therefore, as mobile learning is an area that may continue to grow in popularity and as technology becomes more advanced, it is imperative for educators to continually measure their capabilities to successfully use and implement new technology in the field.

Meurant (2010), in his study looking at the iPad and its potential use in the classroom, concluded that the iPad is a "potential game changer" in that it is likely to revolutionize education, especially its suitability for use in second language learning environments, as it puts the device and the Internet into the hands of users (p. 229). The iPad can be described as an all-encompassing multimedia tool that (with a sufficient Wi-Fi connection) can access the Internet immediately; it does not need to be booted up and allows users to access "learning content wherever they are, and whenever they want" (p. 230). As a result, in order for educators and students to maximize educational opportunities of the iPad they should understand its advantages and disadvantages. Tablets appear to offer many learning opportunities. There is no need for dedicated computer rooms, and it can be used in any class, anywhere (Murphy, 2011). If Wi-Fi is set up and applications have been pre-installed onto the device, it is easy and extremely portable for teachers and learners to use (Murphy, 2011). As a consequence of the learning benefits a tablet might offer, such as portability, ease of use, and the potential empowerment of its users to take charge of their learning within a constructivist framework, there is a need for studies regarding the use and implementation of tablets specifically for language learning purposes.

With the rise of tablets, there has been a trend in iPad adoption in many schools, including at the institution in this study, Kanda University of International Studies (KUIS) (Murphy, 2011). While it is known that technology, especially computer technology, is not a "panacea for language learning" (Warschauer & Meskill, 2000, p. 303) and requires careful implementation and design into its introduction into the language classroom, there is no guarantee for successful results. However, with careful planning and rigorous studies,

tablets and mobile technology in general may be introduced into the language classroom appropriately. Tablets are a relatively new technology available for use in CALL and tablets, like all other areas of CALL, may not only assist teachers and students "to transcend linguistic, geographical, and time barriers but also to build bridges between bilingual, ESL, and foreign language programs" (Warschauer & Meskill, 2000, p. 303). Furthermore, "Tablets like the iPad will make it second nature to not just facilitate but actually make effective pedagogical use of ubiquitous learning" (Garay, 2010).

Although tablets are increasingly popular in education, there are still obstacles and barriers that may limit the use of them in an EFL context. Angel (2011) mentioned that a lack of technical support, dearth of materials such as applications and digital textbooks, and insufficient connectivity infrastructure limited tablets. Since tablets are new, most schools and teachers were not prepared to use them maximally at first. If Japanese universities are prepared to give instructors full support to unlock the potential of tablet in an EFL context then they may become an invaluable resource in the classroom (ibid).

Moreover, in their report to the UK Joint Information System Committee, Wishart and Green (2010) identified several developing issues surrounding the use of mobile technologies in higher education. While mobile technology offers opportunities for collaboration and experiential learning, other mitigating factors must be taken into account. For example, mobile technology is appropriate to specific learning contexts: these devices might not be appropriate in large groups or lectures. Moreover, mobile technology calls for a collaborative teaching and learning approach.

This study also pointed out practical issues that need to be addressed (ibid). These devices require reliable network and power connectivity. Securing personal information and work data needs to be considered. An institutional policy on the use of private devices in workspaces should be established. They suggested that students and staff agree on responsible use.

University technology policy prioritizes cyber-security, and therefore KUIS does not have open access Wi-Fi, nor does it openly support a bring-your-own-device to school approach. The university encourages students to use its own laptops provided in classrooms and labs. The administration is considering purchasing more iPads so that students do not have to rely on technology they have purchased themselves. Therefore, this study did not investigate the drawbacks of students using their own devices as the university provides equipment for classroom use. The current study allowed the authors to investigate tablets in their own context in order to inform any future purchasing decisions and institutional policies regarding tablets and perhaps other mobile technologies in the ELI's language learning environment.

Context

Research was conducted in the ELI at KUIS in Chiba, Japan. Researchers selected four first-year English language classes to conduct the study. The classes were entitled Basic Freshman English and their goals included development of oral communication skills and learner training for success in the KUIS English language classes. The Freshman English classes met four times a week with each session lasting for 90 minutes. At least one lesson was usually held in a technologically enhanced classroom called a blended learning space (BLS). In BLS classes, the curriculum suggested that teachers carry out technology-based tasks. Depending on the task, tools such as PCs, digital cameras, IC voice recorders, and

projectors were sometimes used. These tasks had been designed to use technology in a socially interactive way.

It was in the **BLS** class time slot that the iPads were introduced. Because initial funding provided only five iPads, they were used alongside other available equipment. The iPads were selected for the following four language tasks: transcribing, presenting, researching, and creating media.

Research questions

The research questions that guided the study were as follows:

1. What were the benefits and drawbacks of using iPads for the tasks in the existing curriculum?
2. How did the students and teachers feel about using iPads for these tasks?

Participants

The participants of the study were four English language teachers at **KUIS** and students enrolled in the Basic Freshman English course. The classes were tiered, ranging from low, mid, and advanced based on an English assessment test. Each class consisted of approximately 25 students, although not all of the students had access to the iPads. Each of the four classes used an iPad to complete a transcription task, prepare for a presentation, carry out a video production task, and use the iPad as a digital handout. Each class had a different teacher. Each of the observed classes took place in the fall semester of 2011.

Research design

For the current study it was decided to undertake action research utilizing qualitative research instruments. The research instruments selected were as follows: a questionnaire, video/still images, and observation notes. All participants agreed to be filmed for the study.

Research instruments

Richards (2001) argued that studies of specific methods can be difficult because often the crucial variable is "the teacher's enthusiasm or the novelty of the new method" (p. 168), or in the case of this study the iPad itself, and this was identified as a factor that needed to be considered. To address this variable the teachers observed each other's lessons and took observation notes. Each teacher also had access to the initial observation notes to ensure that the format would remain consistent. The variety of tasks that were completed meant that the observations inevitably focused on the instances that, it could be argued, were synonymous with a particular task. For example the lesson in which the iPad was used as a presentation tool invariably referred to what the students were producing, whereas the task in which the iPad was used as a transcription tool commented on the students' ability to use a particular application successfully. This has a bearing on the consistency of information; however, the responses also allowed the authors to assess the students' attitude toward using the iPad for specific tasks in the existing curriculum. A questionnaire was also completed by the teachers and the students involved in the study and it consisted

primarily of open questions i.e. qualitative data. The survey also allowed the researchers to investigate attitudes towards the use of the tablet device in class.

Research procedure

Each class observed incorporated iPads into their lessons in one of four different ways. First students used it to create a presentation on a new product they had invented. Students used Keynote, Apple's version of PowerPoint, to create the presentation. In the second class, students used it as a media hub to research information and watch videos about various countries. They used various websites such as Wikipedia, YouTube, and Google search. Third, students used the Oresund Voice Recorder app to record and playback audio for a transcription task in which they reflected about a recent class presentation. In the fourth class it was used as a digital handout for a lesson in which students explored different genres of music. They worked with a Google Docs version of a Word document that was printed out for other students. The lessons incorporating an iPad took place during the students' usual schedule in a **BLS** classroom. Previously the students would have completed the tasks selected using **PC**s or other devices such as IC recorders, and although the current study was not intended to be comparative, there were inevitable instances when the iPad users were assessed in tandem with the other technology users. For the lessons in which the iPad was used as a transcription tool and as a digital handout the students used the iPads for the single observed lesson; however, for the presentation and video project the students had access to the iPads prior to the observed lesson as they were undertaking a final project. Problems that arose in the unobserved lessons were noted by the teacher and were included in some of the data analyzed, including observations about support students received. During the observed lessons, video and photos were taken by the observer in order to capture impressions of group dynamics while students were actively engaged in iPad use. The teacher also took discreet notes when any key incidents arose. Immediately after the completion of the lesson the teacher completed a questionnaire, as did the students who used the iPad in the classroom.

Table 1: Schedule details

Tutor	Observer	No. students using iPad/no. of students in class	Task
Teacher A	Teacher C	20/24	Video Project
Teacher B	Teacher A	5/24	Presentation
Teacher C	Teacher D	4/23	Digital Handout
Teacher D	Teacher B	5/25	Transcription

Data analysis

The raw data set derived from the questionnaire responses was categorized into common themes, including instances when support was required and iPad users had difficulties. Coding specifications were created for the open-ended questions which enabled them to be placed into related categories. The instances in each category could then be totaled and finally arranged thematically. By analyzing the data thematically and using coding

specification it was possible to see patterns and similarities and these patterns could be organized under a broad theme or heading that reflected the wider impression of the data collected.

Results

In this section the results of the data will be reported respective to each research question. Although data were drawn from a variety of different sources (teacher survey, student survey, video and photo data, observers' notes), for the purposes of this report, analysis will focus on qualitative data. The findings will also be accompanied by a discussion detailing the benefits and drawback of using the iPads from the students' and the teachers' perspectives.

Research question 1: What were the benefits and drawbacks of using iPads?

According to the observers' notes and the teacher survey, benefits of using iPads in the classroom can be attributed to their size and technical capability. More specifically the iPad's portability facilitated collaboration among students and their functionality proved useful, speedy and convenient.

Integrating iPads into existing tasks appeared straightforward at first. Most students had experience using iPhones or iPod Touches, but fewer had actual experience with iPads. Because of this, teacher participants found it easier than expected to incorporate the iPads into classroom tasks based on several of the participants' previous experience with the Apple's iOS mobile operating system and touch screen interface. The researchers observed that students experienced with iOS could support the teacher or other students who were having difficulty.

However, completing the task with the iPad was not always smooth. Noteworthy was the level of support required when tasks were actually being completed. Several factors slowed down or prevented task completion: familiarity with iOS, familiarity with specific applications, hardware/technical issues, and Wi-Fi network problems.

For those who were unfamiliar with iOS, completing the task took extra time to perform basic functions such as saving and finding files. When asked whether problems were encountered one teacher participant responded, "One pair had trouble accessing their original file. They had saved it, but when attempting to open it again, all that appeared was a black screen." This comment referred to students using the Oresund Voice Recorder application, which was selected because it seemed less complicated than Garageband, Apple's music production software. The researchers discovered that Garageband required too many steps to record audio and could potentially be confusing to students.

Students needed to spend time experimenting with the application controls before settling into the task at hand, which prompted several observations from teachers. Video data shows a few students playing with the touch screen interface, figuring out how to close and open screens, zoom in and out, and access applications. For example, one said, "Those unfamiliar with the interface were confused and needed my help as well." Another said, "More training of the students on how to use the iPads would also be extremely beneficial." During the presentation task a participant from the teacher survey data reported, "The only drawback was the students initial unfamiliarity with Keynote."

Besides problems arising from unfamiliarity with iPad software, other drawbacks

emerged: Wi-Fi connectivity and hardware issues. Every class observed encountered issues with Wi-Fi. This was due mainly to the institutional infrastructure rather than the iPad itself. Teachers noted that students were constrained by a slow network when engaged in activities reliant on consistent Internet access. A teacher commented, "Sites are throttled and only some students can watch things at the same time." This was compounded when an entire class would attempt to use the Internet simultaneously (it should be noted that a similar problem plagues PCs in the ELI BLS classrooms). Another teacher reported:

> When too many students tried to use YouTube to watch videos there was a bit of a lag due to the constraints placed on the Wi-Fi available ... some students had to wait until others had finished before their video, or until a piece of media would load.

Hardware issues involved managing the device itself. For example, batteries were left uncharged, and in one case there were not enough chargers for every iPad. In another instance a teacher wished to project video from the iPad, but could not do so because a display adaptor was unavailable. Others had difficulty with opening the iPad's Smart Cover and using it as a prop stand.

The primary advantage of the iPad was how the portability allowed for a more inclusive working process when the students were engaged in tasks with a visual component, specifically watching videos, creating and sharing presentations, and other media hub capabilities (viewing web pages, etc.). While a laptop PC could also accommodate the aforementioned tasks, tablets were more easily sharable because of their portable size. The iPad's screen size was large enough and audio volume loud enough to accommodate a group of four students, the typical grouping number of students in Freshman English classes. Its size and weight were amenable to being passed between group members, and often more than one student worked on the iPad at the same time. This was in contrast to those students who were using a PC, which tended to result in one member of the group using the PC for the duration of the task. A participant teacher commented:

> The group dynamics were more interactive and supportive. Students were able to freely pass the iPad around and all members were able to look at one screen on the table together. I think the portability and ease of use really helped the groups perform better together.

Another participant said:

> I feel that the four students in the group had more input with the iPad, to the point where I was not sure who had actually had contact with the iPad at the end of the lesson because of its portability.

Another advantage was in the iPad's multi-functional capability. Students could create presentations, visit various websites from digital handouts, conduct Internet searches, record and playback video and audio – all on the same device and in the same class session. A teacher participant recalled, "The students were observed (without any prior instruction) copying images from the Internet, saving them to the camera roll, and then uploading the images into their presentations in Keynote." Another said, "The primary use of the iPad was a media hub: students were researching information, using maps, and watching videos on Youtube."

Research question 2: How did students and teachers feel about using the iPads for these tasks?

In addition to observers' notes and teacher feedback on the use of the iPads, data on student feedback were collected via a survey. In general, data revealed that attitudes towards using iPads were generally positive. 16 out of 34 students noted how useful they felt the iPad was. One student commented, "I think it was really useful. We can find some links soon. So the class would be smooth." Another said, "I think it was really useful." Other words used to describe the use of the iPad were "fun" (8), "interesting" (4), and "good" (4). Though seven students thought the iPad was difficult to use, this did not affect their enjoyment of the iPad, and they still felt it was useful. Like the teacher feedback, students noted the multimedia functionality as a plus. One student commented, "It has many good function (sic), so I think it is interesting to operate various things." Another said, "By using iPad, it became easier to convey our presentation for audience (sic). Because we could make video and take pictures and search for informations with only iPad."

Not all students felt so positively, however. Some felt it was not useful (4) apparently because navigating the software was difficult. Moreover, those that used the iPad for multimedia functions, as with the presentation task and the media hub, seemed to feel more positively about the usefulness of the iPad than those who performed the transcription task or used the iPad as a worksheet. For these relatively 'low tech' or single-mode activities, the iPad seemed to be enjoyable, but some students saw no advantage over using other more familiar tools such as paper worksheets, PCs, and digital recorders. A student who commented about the transcription task said, "I felt like I didn't need to use iPad. You can do it with computers like we do usually." Another student who used the iPad as a digital handout said, "I think it was useful because we don't need (sic) to prepare computers. However, we can't write on iPad, so we need worksheets even if we need (sic) iPads."

In fact, not being able to write or type into the iPad was a serious problem for the worksheet lesson. Some students were given an iPad to access a Google Doc version of the paper worksheet that could not be altered. Therefore, students using them had no way of inputting information. In the teacher's words:

> The students were unable to write or take notes, thus negating much of the worksheet because they were supposed to interview others in class and take notes on what they heard...Not being able to write really rendered the lesson, in my opinion, pointless. Freshman English is very worksheet dependent. Those [students] unfamiliar with the interface were confused and needed my help as well.

The existing Freshman English curriculum at KUIS, as the teacher stated, uses worksheets in nearly every lesson. While teachers have the freedom to edit materials to accommodate their own classes, for the sake of standardization between sections of Freshman English, it is required that several core lessons use the worksheets as a foundation for classroom activities. For this particular task, using a digital handout on an iPad became no substitute for pencil and paper. In effect, removing the ability to take notes made the task more cumbersome, and perhaps less educational for the students.

Discussion

Tablets appear to be an appropriate tool to incorporate into some tasks within KUIS's Freshman English curriculum. Advantages were seen in tasks that usually require PCs or sharing and producing media. However, tablets may not be the best choice for tasks that can be quickly completed with a dedicated tool.

The iPads, as they were used in these cases, appeared mostly beneficial in collaborative situations. In the classes where students were required to produce presentations that included video, audio, photographic, and written material, tablet technology appeared to facilitate such production in a faster, more convenient, and socially inclusive way than did the PCs or laptops available. Students watched or created media in pairs or small groups because these tablets' screens were large and clear, and because they were easy to pass around. When the Wi-Fi network was not clogged, students could quickly complete web-related tasks.

Many drawbacks observed could be remedied with more training. To successfully complete tasks, teachers need to be familiar with all the steps and details involved. During the project, many applications were used for the first time, and teachers did not have significant time with the iPad prior to the class. Basic operations, such as saving and exporting files, required teachers to spend extra time explaining the process to students. Such issues could be minimized with an iPad training program for teachers and students. However, the data seem to suggest that as iOS and other mobile operating systems such as Android become more popular, students and teachers might feel more confident using tablets.

While many of these drawbacks appear to be common sense issues that may occur when any new technology is introduced into the classroom, it should not be taken for granted that these issues will eventually resolve themselves. Some institutions provide less Wi-Fi networks than others, which means teachers and students must do their best with what they have. If an institution is looking to incorporate tablets into their existing curriculum, then its infrastructure should be prepared to handle the increased network demand. What is notable is that studies such as this one may signal the need for institutions to upgrade network capabilities and rethink security policies, especially if their curriculum relies heavily on Internet-based tasks and permits the use of personal devices on its network.

More importantly, feedback from students and teachers indicates that the usefulness of tablet technology is indeed dependent on the task. For simple tasks that require only one function or "mode" of use, (i.e. recording and playback; writing on a worksheet), the iPads did not perform that much better than digital voice recorders whose size and portability are less cumbersome and whose design are specifically geared towards a specific function. In the transcription case and in the worksheet activity, tablets were simply more than was needed. However, the problems in that activity arose from a glitch in Oresund Voice Recorder or poor app design. It appears that the usefulness of tablets depends on its apps.

Moreover, using tablets for digital handouts demonstrates a broader problem with tablets: even though they can access the same websites, tablets sometimes interact with websites differently than a PC. As it stood during the time of the research, teachers assumed that Internet access to the same websites would have been enough to accomplish a task. However, teachers soon discovered that Google Docs had limited features on a tablet, and that the iPad could not play Flash-based YouTube videos. Therefore, it is remiss to assume that tablet and PC web browsers have identical capabilities. Checking that Internet-based

materials work on both PCs and tablets adds yet another time consuming burden on teachers.

In addition, it is worth noting that iPad accessories are not cross-compatible with other non-Apple hardware, so individual iPads must be supplied with all the necessary accessories to ensure that lessons run smoothly. Moreover, widespread adoption of iPads might force an institution to commit more deeply with Apple products in general. This is not by accident – Apple has marketed and designed their technology to operate seamlessly with its own products. Choosing the Apple ecosystem does have its conveniences, but also troubling costs. Take for example, Apple's recent corporate battle with Google: in its recent iOS 6 update, Apple removed Google's superior maps application in favor of its own map system, which has been criticized in the press (Chen, 2012). Choosing the right tool for the job is paramount in any e-learning situation; however a deep commitment to the Apple ecosystem might limit educators' access to better applications and tools.

In sum, both teachers and students seem to agree that tablets have a future in language learning. This was especially true for multimedia tasks where teachers found that using iPads helped the class to become more interactive and student-directed. Students found it useful and convenient to have a tool that worked quickly and flexibly. However, the fact that some participants mentioned that sometimes it was easier to use a specific tool for a specific task, such as transcribing audio recording likely indicates that tablet applications have room to grow. With the increasing variety of mobile apps, tablets can, in fact, be used for specific tasks. However, it appears that an app must be as easy to operate or add additional features for students and teachers to justify using it over a non-tablet version.

Conclusion

This study hoped to shed light on the feasibility of integrating tablet computers into an existing English curriculum at a Japanese university. The data indicate that this particular tablet, the Apple iPad, offered benefits such as speed, video viewing and versatility. However, data also showed that its usefulness depended on the task and application software familiarity and capability. The condition of the institution's technological infrastructure, particularly the Wi-Fi network, also came into play.

Additionally, in these four tests the iPad was used to replace an existing technology. Therefore, tasks were not designed for native properties of tablets themselves. When its native properties are more fully understood, tablets might offer even more potential benefits to language learning environments.

References

Angel, J. (2011). Tablet computers in the ESL classroom: Unlimited possibilities. The *Language Teacher, 35*(5), 51–53.

Brand & Kinash (2010). Pad-agogy: A quasi-experimental and ethnographic pilot test of the iPad in a blended mobile learning environment. 27th Annual Conference of the Australian Society for Computers in Learning in Tertiary Education (ASCILITE). Sydney, Australia. Dec. 2010.

Chen, B. (2012, September 21). "Poking fun at Apple's new maps." *New York Times.* Retrieved October 1, 2012 from http://bits.blogs.nytimes.com/2012/09/21/apple-maps-app/

Garay, E. (2010, December 22). Comment posted to Apple of their eye? *Inside Higher Ed,* December 22. Retrieved October 1, 2012 from:http://www.insidehighereducation.com/news/2010/12/22/college_students_test_drive_the_apple_ipad

Hughes, N. (2012). Apple's iPad now definitively replacing **PC** sales in education. Retrieved October 1, 2012 from http://appleinsider.com/articles/12/09/04/apples_ipad_now_definitively_replacing_pc_sales_in_education.html

Kanda University of International Studies. (2012). *The **ELI** Handbook.* Chiba, Japan: Kanda University Press.

Mawston, N. (2012). Apple iPad Captures 68 Percent Share of 25 Million Global Tablet Shipments in Q2 2012. Strategy Analytics, July 25. Retrieved October 1, 2012 from http://blogs.strategyanalytics.com /TTS/2012/07/default.aspx

Meurant (2010). iPad Tablet Computing to Foster Korean **EFL** Digital Literacy. *International Journal of u- and e- Service, Science and Technology, 3*(4).

Murphy, G. (2011). Post-**PC** devices: A summary of early iPad technology adoption in tertiary environments. *e-Journal of Business Education & Scholarship of Teaching,* 5 (1), 18–32.

NMC Horizon Report: 2012 Higher Education Edition. (2012). Retrieved October 1, 2012 from http://www.nmc.org/publications/horizon-report-2012-higher-ed-edition

Ostashewski, N. & Reid, D. (2010). iPod, iPhone, and now iPad: The evolution of multimedia access in a mobile teaching context. In Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010 (pp. 2862–2864). Chesapeake, **VA: AACE**.

Richards, J (2001). Beyond Methods in Candlin, C & C. Mercer (eds.) *English Language Teaching in Social Context.* London: Routledge.

Sharples, M. & Roschelle, J. (2010). Guest Editorial: Special issue on mobile and ubiquitous technologies for learning. ***IEEE** Transactions on Learning Technologies, 3*(1), 4–5.

University of Southern Mississippi. (2011). Southern Miss to provide Samsung Galaxy Tab 10.1 tablets to students. Retrieved October 1, 2012 from http://www.usm.edu/news/article/southern-miss-provide-samsung-galaxy-tab™-101-tablets-students

Warschauer, M. (2011). *Learning in the cloud: How (and why) to transform schools with digital media.* New York: Teachers College Press.

Warschauer, M., & Meskill, C. (2000). Technology and second language learning. In J. Rosenthal (Ed.), *Handbook of undergraduate second language education* (pp. 303–318). Mahwah, New Jersey: Lawrence Erlbaum.

Wishart, J. & Green, D. (2010). Identifying Emerging Issues in Mobile Learning in Higher and Further Education: A report to **JISC**. Retrieved October 1, 2012 from http://www.jiscdigitalmedia.ac.uk/blog/entry/resources-for-mobile-learning

Author biodata

Marnie Brown is a lecturer of English at Kanda University of International Studies. Her research interests include **CALL** and mobile learning.

Joachim Castellano is an educator, video producer, and media specialist. He currently is the **CALL** Research Coordinator and lecturer of English at Kanda University of International

Studies. He has worked at Northwestern University's School of Education and Social Policy, the JET Programme, Apple Computer, and Teachers College Columbia University's EdLab.

Erin Hughes is currently an English Language Lecturer at Kanda University of International Studies. She received her MA in Applied Linguistics from the University of Massachusetts, Boston, and has worked at the Hess Language Institute in Taiwan, the University of New Mexico, New Mexico Community College, and OISE Boston.

Alex Worth is a lecturer of English at Kanda University of International Studies. He is interested in investigating the Dogme Theoretical Approach and interpersonal relationships and how they influence learner outcomes.