

A Mediated Way

A discussion of the potential and potential problems for teachers and technology in the Japanese classroom

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Keywords

English, Multimedia, Teacher Training, Teaching Methods, Use of Technology

Abstract

This article will discuss the use and application of multimedia technologies in the Japanese classroom, both at a high school level and at an undergraduate university level. With reference to English language teaching and applied English language courses, the effect of using multimedia in the classroom on students' learning experience and attention rates will be discussed. Also research into teacher's opinions on the adoption of new technologies will be compared with definitions of traditional teaching methods.

Correspondingly, with the adoption of new technologies in the classroom being common place in universities and increasingly in high schools, what implications will this have on teachers required skillsets and access to effective training and employment.

The empirical research in this article has been carried out at a number of public and private universities across the Kanto region. Although the participants are anonymous, a mix of native English speakers and Japanese nationals took part in the questionnaire. (*see appendix 1.1)

Introduction

Japan has needed to reflect in recent times on the changing nature of global trade and the global movement of companies and labour forces. Japan's industrial base is increasingly threatened by competition from other Asian neighbours, the slowing of western demand for products, cheaply replicable electronics and the growing multi-lingualism in emerging economies. As Lucy Birmingham points out in her article "Learning Curve: With a Push, Japan's Universities Go Global" (2012), change has

been slow in coming for Japan as only 4% of students at university are foreign and since 2000 there has been a 50% drop in students studying abroad. With an aging population and mounting debt the need to internationalize is at odds with a populist fear of a foreign invasion and attack on traditional ways of life prided by many, particularly, older Japanese.

The response to this has been a move to globally focused university courses and to “skilling-up” students with second language based applied English courses and investment in new language learning software and some tentative uses of web based wireless technologies. As we will see in the case studies, some universities have started to move towards a paperless classroom through the use of broadband Wi-Fi cabling in every teaching room. Web-based software such as Moodle (*Modular Object-Oriented Dynamic Learning Environment*) have given teachers with some technical knowledge the ability to plan and deliver lessons on PCs and tablet computers that were once only possible in an overbooked PC room.

It is important to note here that the rapid adoption of both English only courses and new multimedia technology as teaching tools has been one response by universities, and high schools, to address the need for Japan to be more competitive globally; and much less to provide Japanese youth with a holistic form of education to improve a general quality of life. Birmingham goes on to cite a Vietnamese student leaving from a Japanese University as a tri-lingual graduate being immediately offered a high paying job in “Uniqlo” – a fashion retailer. Traditionally, these jobs within Japan would not be open to non-Japanese.

1. Dilemmas for both native and Japanese English teachers

There has been a recurring theme among teachers, educationalist, and academics that particularly Japanese students are the hardest to motivate, engage with, and get to discuss and communicate in an EFL classroom. Certainly, textbook based classes so popular in the past are fast becoming a dull and repetitive way to instruct students, even though repetition and practice are what students need to remember and build on. The choice by students whether to go along and participate with this old method of instruction seems to be waning, replaced instead by a need for excitement, life-relevance, and a certain “wow-factor”.

Several studies into Japanese students' motivational levels have highlighted a number of contributing factors. Joseph Falout, James Elwood, and Michael Hood in their article "Demotivation: Affective states and learning outcomes" (2009) state that three factors are involved: external conditions of the learning environment, internal conditions of the learner, and the reactive behaviours to demotivating experiences. They claim that for high school and university students who are non-English majors the last two categories mentioned above dominate students' English learning experience profoundly over the longer-term. Ken Seeroi writes in his article "Why are Japanese so bad at English?" (2012) that traditional forms of lecture-centric type teaching in high schools as well as in universities can create an atmosphere akin to a mini-prison where even the most compliant students will only appear interested for the duration of the term they serve studying English. David Shinji Kondo and Yang Ying-Ling in their article "Strategies for coping with language anxiety" (2004) comment that more traditional Japanese character traits of anxiety over minor failures in tasks, peer conformity and a lack of creative visualisation of success in speaking can affect states of learning as much as any other factors.

A case can therefore be made that a more mediated playful "edu-tainment" approach to English language teaching classes would help to combat demotivation, anxiety and break orthodoxy study patterns. Personalised learning, multimedia applications and interactive tasks and the teacher as an entertainer have been suggested as ways to tackle disheartenment among students.

J. D Fletcher points out in his article, "Evidence for learning from technology-assisted instruction" (2003); retention rates of students exposed to class material during a lesson using multimedia were higher than those classes using "traditional" lecture methods. In Japanese high schools, empirical evidence of success using multimedia has produced some speaking results from often quieter, less linguistically able students (see section "An example from Junior High School").

The Japanese Government has issued a plan to raise the famously low English level of its students by making English only classes compulsory for 16 to 18 years by 2013. Kwan Weng Kin writes in his article "Japan to raise English fluency" (2009), that educationalist and academics welcome this but also want an extension into junior and

elementary schools. Liberal Democratic Education Minister Hakubun Shimomura proposed in May 2013 plans for compulsory English-language classes from the fifth grade students and the employment of English only teachers at elementary school level.

Therefore, the need for Japanese teachers to engage more with their students in real-life English communication will be a challenge for them as the new laws come into effect. The common lecture style and book work in Japanese teacher English classes would not pass any inspection of good practice based on these new rules. Foreign teachers in Japan with a background in teaching with new technology could be the key to further training sessions for Japanese teachers.

In Britain, the adoption of computing in schools was introduced in 1982 and has been a key feature of lessons, both in Computer Science classes and in others. The effect of this on students has produced a competence level of basic PC skills, such as file accessing and word document production, as well as simple presentation slide preparations; perhaps the most commonly used skills outside of Information Technology lessons. On the teaching side, the development and exchange of materials in electronic format has meant that the sharing of ideas audibly, visually and graphically has grown exponentially. The mandatory use of “Smartboards” and mobile digital projectors has hastened the pace of developing materials and database websites such as “teachit.co.uk”. Therefore, there is a strong case for Japanese high schools and undergraduate English courses to follow suit.

Another trend that is set to shape the structure of university education in future is the increasing availability of “Massive Open Online Courses” (MOOCs). Daphne Koller outlines these internet-based courses, in her TED Talks lecture, as offering the highest quality courses to those with the most need to access education. Although at an early stage the potential impact of widely available, high quality and easy to access universities courses may soon have a profound effect on how courses are delivered, financed and supervised.

At a high-school and elementary school level, plans to offer electronic textbooks in all Japanese schools will be standardised by 2015, according to the Ministry of Education. The consortium of twelve text book companies have formed a group known as CoNets – Connecting to the Next Generations of Teachers and Students who will

require teachers to operate touch screen devices, “Interactive Smartboards” and remotely monitor each students’ use of touch screen devices.

2. Problems and a reluctance to change - Training

The case for an increase in the use of technology in the classroom as opposed to being confined to a PC room is gaining popularity. However, one aspect of its adoption as a universal tool for lesson delivery is the question of teacher training and willingness of teachers to engage in the utilization of new technologies. Dell Computers commissioned a study by the research institute - Penn Schoen Berland (2012) in which they conducted 1,575 interviews with parents, teachers and students in Germany, The USA and China on the practice and experience of using computer technologies and software in the classroom. They found that:

- Most respondents say technology plays a vital role in learning
- 9 in 10 respondents say technology helps students’ ability to learn
- 88% agree technology helps prepare students for the jobs of the future
- More than 8 in 10 agree that technology makes learning easier, makes teachers more accessible and gives students a personalized learning experience (Dell, 2012)

However, in a study of the use of devices integrated into a normal classroom based environment, Berland found that in China 53% of the respondents said that devices were used, whereas in The USA only 29% and in Germany only 27%.

For many teachers, the introduction of new technology into the classroom has not been welcomed. Resistance to the use of “Interactive Smartboards” was widespread in the UK as teachers struggled to use the untested technology and complained that their preparation time increased without a noticeable improvement in learning outcomes. A report from the prestige teaching university, The Institute of Education in London, criticised the use of the “Smartboards”, saying that simple tasks became longer and writing with an electronic pen inaccurate and frustrating. The report goes on to say that after the initial excitement from high school students at the chance to use the new touch screens, the motivation was short-lived and soon dissipated. Dr Gemma Moss, one of the co-authors of the report “The Interactive Whiteboards, Pedagogy and Pupil Performance Evaluation” (2007) commented that at key assessment stages the results of

student performance after using the technology did not rise and in fact reduced the productivity in lower level classes.

The Dell report, “Innovation in Education: Public opinion poll of parents, teachers and students” (2012), also presented empirical results that the perceived technical ability of students was higher than that of their teachers. In Germany and, in particular, in the USA, students were seen to know considerably more about the technology used in the classroom than the teachers; and that most of the teachers surveyed felt they had not received adequate training or any training at all. Only in China did students comment that their teachers knew more about the technology and how to use it effectively.

Survey taken within Japanese Universities.

Empirical research was taken for this article in two private universities and one public university in Japan. One institution in particular had launched an extensive wireless internet infrastructure across the university including all classroom and common room areas, as well as in staffrooms and in libraries. This project started in 2010 and requires all students to have a personal hardware device in all classes. A standard device is supplied to students at the start of the 1st semester with an option to purchase the device at the end of four years of study. However, students are allowed to use their own devices.

The survey asks teachers from the various universities what technology they use in the classroom, how much of their lessons are involved with the use of this technology; and what training has been offered for this new teaching environment. See appendix 1.1 for the questionnaire information format and appendix 1.2 for the results of the survey.

A summary of the results

This section will refer to the most salient points that arose from the results of the survey. This survey was carried out in three separate universities and administered to about forty university lecturers; some lectures were working full-time, however, most respondents were working as part-time lecturers.

With references to appendix 1.2, we can say about the results that:

- Teachers are beginning to use more technology in the classroom, other than CDs and DVDs.
- Over 50% of respondents think using new technology helps with students attention in class
- Over 60% of respondents have never received any training on how to use new technology.
- 70% of respondents felt that some training or more training would help with their use of new technology in the classroom.
- 42% of respondents felt that knowledge of using new technology in the classroom would help their employment chances; with an additional 26% stating that it would absolutely help with their employment chances.

3. A Mediated Way

Let's look at some recent history of new technologies in the classroom, technologies such as tablet computers, smartphones, smartboards, digital cameras and data projectors. It would be fair to say that most teachers of English and teachers in general use CD players and televisions during a course. However, as results from the survey have shown, the use of newer technologies such as "I pads", "I phones", language software and presentation software is not as widely used at university level in some Japanese universities.

Yet, according to Internet World Stats, Japan has over 1.7 million users of Facebook, a popular social networking site developed in the United States. Japan is also the third largest user of the Internet, as quoted in the CIA World Fact Book, with 99 million out of a population of 127 million people connected.

For many Japanese students, the use of social networking sites is as prevalent as in any developed nation as well as the use of mobile Internet tablet computers and cell phones. The increase in Internet bandwidth and widespread fiber-optical cabling throughout parts of Asia has vastly increased the potential for videophony and telephony. For example, the frame rates of the video streams that are now available over broadband Internet connections has made the recognition of facial and vocal inflections more realistic than ten years ago. A study by Simon Mason in his thesis "Video Conferencing as a tool for language learning (2002)" states that video technology was

not able to cope with detailed facial signals on video streamed on a lower bandwidth Internet connection in 2001 and hence was not utilize as much as a teaching aid at that time.

However, with this increase in bandwidth, the quick development of applications that use it have been very popular among the younger generations. Applications, for instance, “Facebook”, “Skype”, “LINE”, “Twitter”, “Instagram” and “Mixi” in Japan have meant that students come to their classes with a set of operating skills and knowledge that can be developed by the teacher to engage the student in language learning. Here, it must be pointed out that a lot of the users in Japan prefer to write and speak in Japanese when using these applications, however, the point to be made is that these forms of communication are global and in most cases the same technology. Notwithstanding, any brief contact a Japanese student has with a foreign student or friend face-to-face could easily be followed up by communication using an application such as Facebook or Twitter.

Gender and New Technologies

In a study on social networking over the Internet, cited by the BBC in the UK, it was found that girls were more familiar and use more of the features of these sites than boys. Girls are said to use social networking sites up to 40% more than boys and use more of the technical features like photo uploading and chat functions. This points away from previous findings by Shuell and Farber (2001) that, in a study of 700 students, the attention rates in a classroom using PCs increased among boys much more than among girls. This suggests that rather than girls not being interested in using new technology, as commonly thought, that certain multimedia formats are more appealing to girls and young women. As classrooms become more equipped to use new technologies, the issues of gender preference should be considered in light of some of these findings.

New Technologies in Universities and High Schools in Japan

As well as the improvements in Internet quality and increases in bandwidth, so the price of hardware has fallen. This has meant that many university teaching rooms and classrooms can now afford to include some form of hardware technology. One

example of this can be found at Maebashi Kyoai University in Gunma Prefecture. This university has developed a system known as “The Ubiquitous Campus”, wherein students are given mobile devices such as Apple’s Ipod Touch or Google’s Nexus 7 at the start of their study programs. The university has wireless broadband Internet connections in all classrooms and common areas for students and teachers to access. Also attendance in lessons is recorded via a daily registry number given out by the teacher which is inputted into each student’s device.

A PC room environment is no longer the only option for the teacher to engage in using Internet based technology under these conditions. The open-source online e-learning platform Moodle, mentioned above, can work well in this environment as teachers have the ability to post course work and record results. More technologically advanced teachers can use any Internet based content they have designed themselves to deliver a more interesting lesson to students who can access the Internet directly. For example, a class may use their mobile devices to record audio conversations prepared with the teacher’s help, then groups of students can bring in their PC laptop computers and download software to edit the recordings into a radio program. Previously, this type of class would involve the booking of a PC room and limit the time available to complete the task.

Technology and motivation

As students go through high school and on into undergraduate study, developing socially in co-ed or single sex schools, their levels of motivation and involvement in classes depends on many factors; the numbers of friends they have, their home life, their natural ability in each subject, their feelings towards the teacher and other students, as outlined by Falout, Elwood and Hood (2009). For the English language teacher these feelings may not be expressed directly, yet the resulting behaviour of these influences and attitudes would be presented to the teacher in the student’s level of attention to tasks. Therefore, most language classes have multiple levels of ability and motivation. Although the commencement of university study should prompt an end to a certain regimentation of learning as organised in the high school environment, much of the attitudes and behaviours towards learning remain the same, particularly among first year

undergraduates and lower level ability undergraduates throughout their four year study programs in Japan.

Usually the teacher pitches the class material at a median level after assessing all students. Consequently, the teacher is often faced with a dilemma of who to disappoint; either the high level students who think it too easy or the lower level students who think it too hard. The answer would be to find a task or tasks that appeal to all but also support the individual needs of each student.

One approach designed to tackle this problem is Task-based Learning (TBL). Although a lot of this method can be seen as commonsensical, it was Willis and Willis in their book “Doing Task-Based Learning” (2007) who best describe this way of teaching English through employing tasks based on a real-life situations but without a pre-prepared script to memorize. Students must think about how to complete the task with a set of pre-taught vocabulary, and perhaps a few grammatical phrases, but without any pre-ordering to the production of the language.

The goal of completing the task will inevitably produce situations in which students have to co-operate, explain, and query decisions. These interactions are where Willis describes the real “consciousness raising” of the language use will take place. Students will see how their application of vocabulary and phrases into sentences can get a result or move the task on to a next stage. The quality of the language production should not be penalised during the task, as long as the target language is being used. It should be possible to explain and feedback to students after the task is completed. Indeed, this approach does not negate the lecturing and drilling methods popular in Japanese language teaching styles, moreover, TBL provides a space for freedom to speak in communication classes that might be separate from grammar and vocabulary reinforcement teaching methods.

How does the methods espoused by Willis and Willis connect to the increased use of multimedia technology in the classroom?

An example from Junior High School

As multiple levels of English ability have been seen to exist at both university and high schools, one particular example from a Junior High School class in Yokohama

demonstrates how new technology can be used effectively to deal with this situation. The teacher's response was to use video and film making to engage students in English and promote their confidence at different levels. A certain amount of planning was required to get the students into groups that each reflected the highest and lowest levels of ability in the class. Then the teacher encouraged the higher level students of each group to start script discussions based on a single word chosen from a list. This word would have to be reflected in the story in some way. Students would be shown how to write a story arch of an introduction, then a changing event, and finally the result of that change. This would give each group a chance to write or draw storyboards of their stories before shooting them.

Once the scripts or storyboards were finished the teacher assessed the content and helped the students to write simple dialogues and actions. Lower level students were encouraged to take the lead roles, while the higher level students were encouraged to take the production roles of directing and shooting the film using English.

In this particular example, it was found that in small groups with mixed levels, some previously shy and uncommunicative students responded well to their new status as lead actors and actresses. Given actions with related dialogue, lower level students were able to contextualize the words and apply them to a situation. The higher level students were instructed to direct these actions using English with gestures and commands, also prompting the students with the English language dialogue from the script.

The resulting work was then edited by the teacher and DVDs and Internet broadcast were made. Students saw how even with a limited ability and grasp of English their actions and dialogue could move a story along and entertain an audience. This was a hugely motivating factor and helped the lower level students to participate more in subsequent classes.

Although this task was done in a junior high school class it could easily be transplanted into a high school or undergraduate class level with more technical skills instruction by the teacher with lessons in editing techniques within PC rooms and, as mentioned above, in wireless broadband enabled classrooms.

Therefore, we can draw some conclusions from these empirical studies and the

state of students' life experience of using new media in communication.

- Students are familiar with types of media and multimedia technology in their daily lives.
- Certain multimedia formats could favour genders.
- General interaction with multimedia does promote understanding and interest in the classroom
- Multimedia formats now include high quality visual and audio production locally and over distances.
- Cheaper hardware prices have made access to new technology possible in different teaching environments

Conclusion

There is a case to be made that the acquisition of English speaking in Japan has fallen behind other Asian countries and has not been given the support and attention that sciences and the Japanese language have over the last fifty years. As the Japanese government seeks to improve the standard of English in Japan there should be a consideration of how new multimedia technology could play in the development of more communicative lessons for both native speaking teachers and Japanese English teachers. In 2002, JAPIAS (*The Japan Association for the Promotion of Internet Application in School Education*), said that the need for high schools to develop multimedia technologies would help in:

“...promoting education for living in an advanced information society and leading that society. (JAPIAS 2002)”.

Since then facilitating such changes has been slow on a national scale with progress beginning to manifest itself in a number of Japanese universities designating rooms for student to explore international issues and interact with foreign students and teachers. Many of these “Global Lounges” have attempted to widen understanding through the use of new technologies such as Facebook, Twitter and Skype video conversations, as well as “Web-casting” to other campuses around the world. It would follow then that any expansion of facilities in International Studies faculties and English departments should be met by a change to the delivery of regular lessons in the traditional classroom. The use of new technology would then feature more prominently.

Consequently, a set of new criteria for assisting development in this area would require a number of initiatives:

- A commitment to training staff in the use of new technologies.
- A budgetary commitment by the boards of education and private education managers.
- Further academic study into the effects of multimedia in the classroom.
- Presenting examples of best practice
- Developing data centres and open access websites for the sharing of information.
- Supporting teachers with increased preparation workloads.

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Appendix 1.1 - Quick Questionnaire for Teachers

Please read the questions below and then circle or tick the most appropriate response that is true for you. All questionnaires are anonymous and are for research purposes only. If you think there is no suitable option for you to circle or tick, please leave the question out or write a quick answer of your own. This questionnaire will be issued in a number of universities.

1. Do you use CDs or DVDs in your teaching during any courses?

I never use them.	I rarely use them.	Occasionally, I do.	Yes, regularly.	A lot during the semester.
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2. Do you use any computers, software (e.g. PowerPoint), Ipads, Nexus 7, Ipod touch in your lessons?

I never use them.	I rarely use them.	Occasionally, I do.	Yes, regularly.	A lot during the semester.
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3. Do you think using IT and multimedia technology in the classroom improves students' engagement with the lesson?

It never really improves classes.	It depends on the topic.	It can improve any topic to a degree.	It can improve any topic significantly.	It is fundamental to all types of lessons.
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4. Do you think that your lesson preparation time would increase to an unacceptable level if you had to design your materials for use on Moodle, Smartboards, Ipads, PowerPoint and other forms of multimedia?

Definitely, I have a method that works – any change would make it longer.	I think so, I already take longer than I used to in preparation time.	No, it would be about the same.	Once I have learnt a new system it would be acceptable.	Actually, it might reduce my preparation time once I knew how to use it.
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5. Have you ever been given any new technology or IT based equipment without receiving training on how to use it? Yes No

6. Do you think training on how to use new technology such as Ipads, Nexus 7, Moodle, Smartboards would help you use them more effectively in the classroom?

Yes No Maybe

7. What do you think of this statement? "New technology in the classroom has had a net positive effect on teaching practice over the last 10 years?"

I completely disagree.	I mostly disagree.	The effect has been neutral.	Yes, I think so.	I strongly agree with the statement.
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8. Do you think a lack of IT or multimedia knowledge affects employment opportunities?

No, not really.	It depends on the area of teaching you do.	A little, but not significantly.	I don't know much data on this but I feel it does.	Absolutely, I think it does.
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Appendix 1.2 - Results of Survey





