



TLT RESOURCES

# TLT WIRED

## ...with Edo Forsythe

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In this column, we explore the issue of teachers and technology—not just as it relates to CALL solutions, but also to Internet, software, and hardware concerns that all teachers face.

We invite readers to submit articles on their areas of interest. Please contact the editor before submitting.

TLT WIRED ONLINE: A linked index of articles can be found at:

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**W**ith the proliferation of tablet computers such as the iPad, Surface, Asus Transformer Pad, and others, teachers and students have an excellent opportunity to individualize learning and reduce the use of paper in the classroom. This issue's column focuses on two instances of the integration of tablet computers into educational programs. The first article provides a list of things to consider before taking the leap toward tablets, and the second article details the pros and cons experienced by teachers in an all-iPad mini school. I hope this information will help you in your efforts to make your classrooms *Wired!*

## The transition to tablets

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Envisage a classroom in which learners are in charge of decisions such as whether to replay a listening, re-read a text, or move on to the next activity. Making the transition from teacher-centered instruction to autonomous, individualized learning was the primary impetus for our decision to adopt tablet computers as the means of providing instructional content. Tablets are an effective way to put learners in control of the choices, material, and activities that define their learning. Hardware quality has increased even as tablet prices have decreased, creating a win-win situation for both language teachers and learners. By harnessing the Internet and wireless LAN in the classroom, it is possible to take advantage of the exponential increase in the volume of English language content and the number of learning applications. Below are 10 aspects we considered in detail that facilitated a smooth transition to tablets.

### 1. Digital delivery system

Storing content, sharing data and collaborating online can be as easy as opening a Google account. We opted for Moodle, an open-source learning management system to create our virtual learning environment, but Canvas is also another easy-to-use, out-of-the-box choice.

### 2. Content creation

Content is key. MoodleReader (Robb & Kano, 2013) and commercial spaced repetition software (SRS) services such as iKnow! and EnglishCentral were made available to students from the outset (see Godwin-Jones, 2010 for a discussion on SRS and vocabulary learning). Four modular courses were created in response to an extensive needs analysis. Two recommendations we would make are to set up a shared Google account to use for online accounts, such as Prezi and Survey Monkey and to create how-to videos using screen capturing software, such as Screencium for Apple computers.

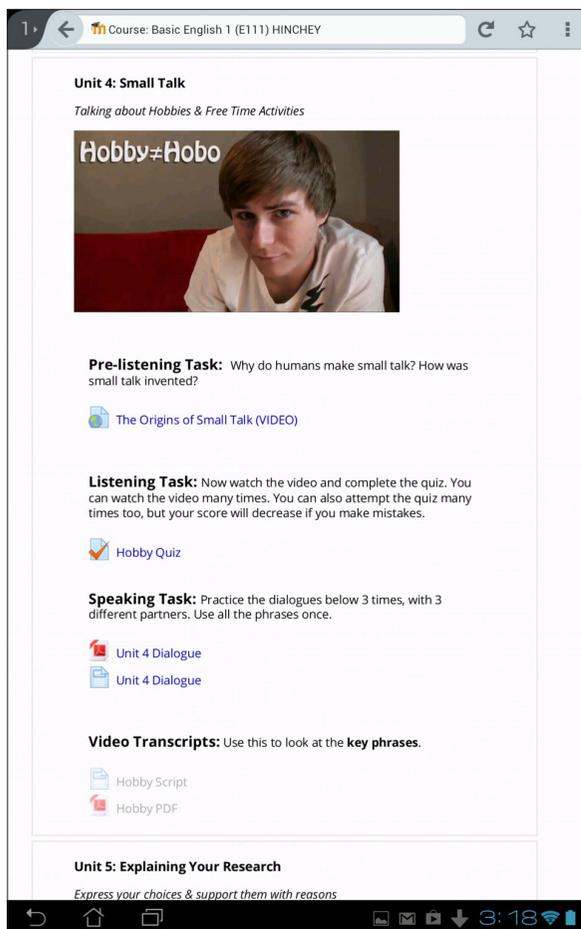


Figure 1. Screenshot of the courseware used on a school-provided tablet.

### 3. Wireless LAN

On a wireless network, students can easily form new conversation groups or change partners while having the lesson goals, example dialogues, and a list of core speaking strategies available at the swipe of a fingertip on their tablets.

### 4. School- or student-owned devices

Providing learners a standard tablet reduces compatibility issues and the need for testing content on multiple platforms, since content is accessed using the same type of device. However, incorporating learners' own Internet-enabled devices means not only fewer devices need to be purchased, prepared, and maintained, but also that learners will be more familiar with the features of their own devices. We opted to encourage all learners to bring their own device, but purchased enough to distribute to those with

no device or suffering technological difficulties. We found that over half the students brought their own device.

### 5. iPad or Android device

Although iPads are the preferred choice in some universities in the US and Japan, we selected tablets using the Android operating system because of their lower price, larger market share and open-source ethos. We also found that expanding external storage was much easier than for iPads.

### 6. Detachable keyboards

Slate tablets are perfect for in-class use, but we suggest buying a detachable, docking keyboard for administrative use. These keyboards bring various bonus features, such as USB ports for data transfer and longer battery life. Unfortunately for iPad and Google Nexus tablets, only third party providers sell keyboards that are not physically attachable to their tablets. Other advantages of detachable keyboards over Bluetooth keyboards include less lag time on connection to the tablet, easier charging and not having to buy extra cases to make the keyboard and tablet one physical unit.

### 7. Regular or mini size

Smaller or mini-sized tablets carry a lower price tag, but require more swiping by students to navigate online content. We chose Asus Transformer Pad Infinity tablets (approximately A4 size) to reduce the amount of scrolling needed to access our online courses and to make it easier to answer quiz questions, since learners could view both video clips and quiz questions simultaneously.

### 8. Application compatibility

The tablets should, of course, be compatible with any learning apps your students use. We chose Android tablets knowing that the commercial learning apps that our students use on their desktops and laptops would also sync data with the mobile apps of commercial services. This gave us the flexibility to fully test apps before considering them for student use. It also left the door open for tablets to be assigned to individual students and potentially be used outside of class.

### 9. Camera & microphone suitability

Most tablet devices have the ability to record audio and video. Depending on your course objectives, you may want to record your stu-

dents; if so, we recommend selecting one with an option to decrease the quality of recorded video. Standard-definition video quality (480p) is fine for class use and avoids the larger file sizes of high-definition videos.

#### 10. Time, energy, and finance

Each device needs to have the optimum interface to ensure that the tablet does not become a barrier to access the class content or online activities. In order to prepare each tablet for distribution to students, this involved (a) charging the battery, (b) selecting English as the OS language and selecting an English keyboard, (c) disabling the default Android browser and enabling Google Chrome, (d) setting the browser homepage to our online course with appropriate bookmarks, (e) registering the MAC addresses with the school wireless network, and (f) updating the Android OS. The entire process took 20 hours. Our key expenditure was purchasing a set of tablets for classroom use. Since our remit was to develop an e-learning program, we were supported by our division administrators who approved the purchase of 17 Asus Transformer tablets with the standard one-year warranty for just over 250,000 yen in 2012.

#### Conclusion

Considerable time and energy were required to get the project operational. Although it is difficult to calculate the exact amount of time we dedicated to this transition, we both feel that the rewards are well worth the time and effort necessary. Transitioning to tablets also provided us with valuable experience with e-learning for the future, and puts us in a prime position to take advantage of new, online developments such as the forthcoming free massive open online courses provided by Japanese universities. If you have any questions about making the transition to tablets, feel free to contact the authors.

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- Godwin-Jones, R. (2010). Emerging technologies from memory palaces to spacing algorithms: Approaches to second-language vocabulary learning. *Language Learning and Technology*, 14(2), 4-11. Retrieved from <lsa-cmsf5test.lsa.umich.edu/german/hmr/531/llt/emerging.pdf>
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## The paperless classroom: Pros and cons

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The introduction of the iPad in 2010 raised the possibility of using tablet computers in the classroom to go paperless. At the Bunkyo English Communication Center (BECC) at Hiroshima Bunkyo Women's University, students and teachers are carrying out paperless General English classes every week thanks to the university's decision to give an iPad mini to all incoming students from April 2013. This article will consider some of the practical pros and cons of the paperless classroom we have discovered in our first year.

#### Pros

##### *Easy transition from current materials*

The biggest advantage of going paperless at our institution has been preserving all of our current materials. Our in-house curriculum is made entirely in Microsoft Word, and is easily converted to a PDF file in seconds. Using the PDF annotation app Notability, all our current materials are preserved and can be interacted with on the iPad mini as if it were paper. This ability to mark up PDFs minimizes the disruption caused by introducing iPad minis into lessons, and allows teachers to make changes to their pedagogy at their own pace. Having the soft copy also ensures a backup is always available in case of network failure. Teachers are still able to print lesson materials and distribute to students on paper.

##### *Easy materials management*

Materials management in the paperless classroom is improved in many ways. Eliminating the need to print class materials not only saves time and reduces printing costs, but also allows for last-minute editing. One typo no longer necessitates the reprinting of hundreds of booklets

of paper. If materials are stored in an online repository, then they are always available to students in the event that they are absent from class or accidentally delete materials from their device. As an iPad mini is much easier to carry than a large folder full of handouts, students can always access work from previous classes. Distribution of materials is also fast; students can download materials ready for use in class in only a few seconds if a simple website is used to store materials. Google Sites makes for a simple, fast, and free way to store and organize materials.

**Enhanced materials**

Going paperless also provides an easy way to enhance materials. Materials and handouts that have been carefully designed on computer often lose their visual appeal when printed in monochrome. However, no such loss in quality is experienced in a paperless classroom; students will see materials exactly as the designer intended. Moreover, the iPad provides functions that paper cannot. In the Notability app, PDFs can be enhanced by inserting web clips, images, audio, and figures.

**No computers**

A big advantage of students carrying their own iPad minis is removing the need to deal with computers. A large amount of time is saved by not getting computers out of cabinets and waiting for them to start. In addition, the familiarity with their device that students gain by using it every class means almost everyone is highly competent at carrying out tasks that used to be done on computers. For example, students using iPad minis at the BECC were able to create presentations much more quickly on the Keynote app than students in previous years who had to use PowerPoint on computers.

**Cons**

**The learning curve**

The initial introduction of iPad minis into lessons requires a large amount of training for both students and teachers. As language teachers already have a packed curriculum and are not IT specialists, training before the first class is essential. All students in the BECC received guidance in how to use Notability in Japanese in their IT classes, and students who attended the pre-student day were also given homework to complete in Notability. Teachers also received

three hour-long sessions in using iPad minis in class. Even with this training, the initial pace of lessons was slowed as students and teachers got used to working with class materials on their devices.

**Uploading and storage**

Although the iPad mini is very convenient for downloading and interacting with lesson materials, turning in assignments or homework from the iPad mini is not as smooth. Similarly the 16 GB memory of the iPad mini base model may not be sufficient for four years of university study. There are a variety of methods for sharing documents and storing files in an external location, such as cloud services (e.g., Dropbox) or sending directly (e.g., email), but generally require students or teachers to sign up for accounts and none provide an experience as smooth as downloading materials to the device. These problems are not insurmountable, but none are currently as easy as uploading from a computer or as convenient as using USB or SD card slots that can be found on many Android devices. There is also the question of how well the iPad minis will stand up to both technological advances and wear and tear over four years of continuous use.

**Computer-assisted language learning?**

The fact that pedagogy has not been influenced by the introduction of iPad minis can be seen as both a pro and a con. According to the SAMR model (Puentedura, 2012), the iPad mini is functioning as a direct substitute for a lesson handout printed on paper. Given that there is no

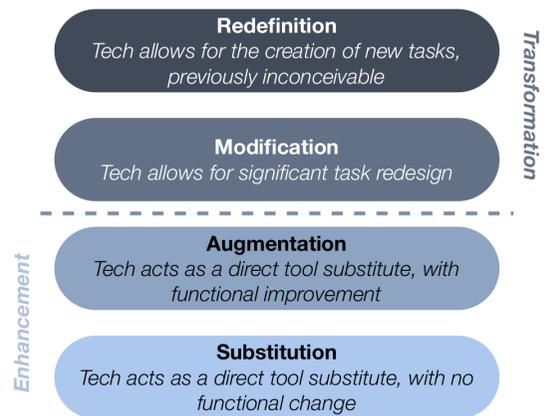


Figure 2. The SAMR model (Puentedura, 2012)

functional difference between writing on a piece of paper and using a stylus to write on an iPad mini screen, we are hardly dealing with CALL at all. On the other hand, if direct substitution is seen as a first step before moving up the SAMR ladder (see Figure 2), paperless is an excellent option. It allows users to get used to the technology using familiar materials and start to enhance their lessons at their own pace. Some teachers have already moved to the augmentation stage by using Notability to embed online content in lesson handouts.

### Conclusion

The paperless classroom is a big challenge for not only teachers and students, but also managers and administrators all over the university who have an interest in its success. The initial steps in establishing a paperless classroom may not themselves serve to improve pedagogy, but the numerous practical advantages outweigh the

disadvantages and have placed the BECC in a position to greatly enhance the learning experience in the coming years.

### Reference

Puentedura, R. R. (2012). *The SAMR Model: Background and Exemplars*. Retrieved from <hippasus.com/rrpweblog/archives/2012/08/23/SAMR\_BackgroundExemplars.pdf>

**Editor's Note:** I hope you found these articles helpful in your preparations to integrate tablets into your program. You can learn more about using technology in the language classroom at JALTCALL 2014 in Nagoya from June 6 – 8, 2014. Check out <conference.jaltcall.org> for more information about the conference and I hope to see you in Nagoya! Until then, keep your students *Wired!*



JALT FOCUS

# JALT NOTICES

## ...with Malcolm Swanson

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