Engaging Students With a Mobile-Friendly Interactive Space

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Reference Data:
Davies, R. J. (2014). Engaging students with a mobile-friendly interactive space. In N. Sonda & A. Krause (Eds.), *JALT2013 Conference Proceedings*. Tokyo: JALT.

Developments in mobile technology have been rapid in recent years, and ownership of mobile devices such as tablet computers and smartphones have become more common. As a result of this mobile revolution and the benefits that such technology has to offer, an increasing number of educational institutions are embracing mobile learning (m-learning). However, with a growing number of free mobile-friendly web tools that educators may use to create online content, many educators are faced with the immense challenge of how to best select and incorporate such technology. This paper details how one may select and utilize online technologies to create an engaging interactive space to be used on mobile devices in foreign language classrooms. A framework for choosing appropriate web tools coupled with examples of free online technology that the author is currently using are examined.

近年モバイル技術の発展が急速になり、タブレットコンピュータやスマートフォンなどのモバイル機器の所有がより一般的になってきている。このモバイル革命とこのような技術を利用する利点の結果として、モバイル学習（M-ラーニング）を取り入れている教育機関が増えている。モバイル機器用オンラインコンテンツの作成に教育者が使うであろう無料ウェブツールが増加しているが、このような技術を選択し組み込むことは容易ではなく、多くの教育者が多大な課題に直面している。本論文では、外国語の授業におけるモバイル機器用の魅力的且つ相互的なウェブサイトを作成するためのオンライン技術の選択と取り入れ方を説明する。著者が現在使用しているオンライン技術の例を基に、適切なウェブツールを選択するための基礎について検討する。

A GROWING NUMBER of educational institutions are endeavoring to incorporate mobile technologies such as tablet computers and smartphones into their curriculum in an attempt to engage and empower learners. However, many educators are overwhelmed by the immense task of creating curricula to be used on mobile devices. The purpose of this paper is to provide readers with a basic guide for selecting and utilizing free mobile-friendly technologies in a way that will enhance language learning tasks and engage students in the foreign language classroom. This will be done by first discussing two concepts that are particularly useful as part of a framework to support educators in creating an interactive space: the concept of *flow* and Puentedura's (2012) SAMR model for educational technology transformation. This will be followed by an examination of free online tools recommended by the author coupled with examples of how one may utilize such tools to create a single interactive website.

Theoretical Framework for EFL Web Design

The relationship between information technology and human behavior has been studied for decades. In the past, web designers tended to focus on the functional aspects of websites; however, this focus is now shifting towards web user interface design and how aesthetics influence user motivation and enjoyment (Pold, 2005; Stenalt & Godsk, 2006; Tractinsky, 2013). Research also shows that aesthetic design of interactive technology improves usability and increases engagement (Moshagen, Musch, & Göritz, 2009; Tractinsky, 2013). Stenalt and Godsk (2006) aptly stated, "It is likely to be just as important a factor for e-learning platforms as it is for websites right now to integrate an aesthetic communication in order to attract and engage future users" (p. 211). Thus, one of the biggest aims when creating an online space for students is to make it not only user-friendly but also aesthetically pleasing.

Another integral factor when creating content online is the level of engagement. According to Krashen (1982), language learning is directly related to the amount of comprehensible input learners receive, and in order for learners to pay attention to the input, it needs to be interesting. In 2011, Krashen revisited this statement and added, "Interest may be not enough for optimal language acquisition. It may be the case that input needs to be not just interesting but compelling . . . so interesting you forget that it is in another language" (p. 1). In other words, it is preferable that students reach a state of flow, described by Csikszentmihalyi (1990) as a state characterized by intense focus, involvement, and enjoyment that leads to improved performance on a task. Flow, also known as *optimal experience*, is articulated well by Norman (1996):

> Probably all of us have experienced this engaged state of focused attention, a form of trance. As all attention is focused upon the task at hand, the outside world fades away: Its noises and distractions subside. This trance world can be induced by many things, by books, plays, television. By games or music. By concentrated experiential cognition or by intense, focused reflection upon a problem. It is an enjoyable state, for when attention becomes so intensely focused upon the thing of interest everyday worries and fears are transcended and all else recedes. One lives for that task alone. (p. 38)

Flow is an experience that may be triggered by a variety of things. However, as the World Wide Web advances, it is becoming more and more apparent that online interactive media greatly facilitate the occurrence of flow through enhancing input (Tractinsky, 2013). Internet users often describe their experience on the web as an "'absorbed interest,' 'a feeling of discovery,' 'immersed pleasure' and 'time going very fast'" (Chen, Wigand, & Nilan, 2000, p. 265). Thus, the Internet can help us to design activities that fuel these perceptions and support intrinsic motivation. In a study by Rettie (2001) that examined respondents' awareness and experience of flow on the Internet, half of the respondents reported experiencing flow when online. Rettie discovered that "Interactivity holds their attention and creates the feeling of control" (p. 14) and that "Flow is more likely to occur when they have a specific task than when they are just surfing for fun" (p. 14). Flow theory has also been shown to improve and enhance motivational design in e-learning environments (Chen, Wigand, & Nilan, 1999; Keller, 2010). ChanLin (2009) observed that "An important facet of effective Web-based instructional design is the consideration of learning activities to stimulate students' learning motivation" (p. 91). This raises the following questions: What kind of activities stimulates students and does flow exist in the EFL classroom?

Findings by Egbert (2003) suggest that flow does exist in the EFL classroom and that flow theory can be a useful framework for evaluating learning activities because "Flow and language acquisition occur under many of the same conditions" (p. 506).

Egbert's model of flow in language learning is a useful framework for teachers when designing activities online as it helps teachers to "theoretically facilitate the flow experience for students by developing tasks that might lead to flow" (p. 513). The model illustrates how a well-designed task along with learners' skills in the target language and tools such as technology can lead to flow. Flow, in turn, leads to learners' improved performance, which then leads to changes in the learners' skills. The model follows four dimensions:

1. the balance between task challenge and student ability,
2. the need for focused attention on the task,
3. an absorbed interest in the task and the material, and
4. a sense of control when doing the task.

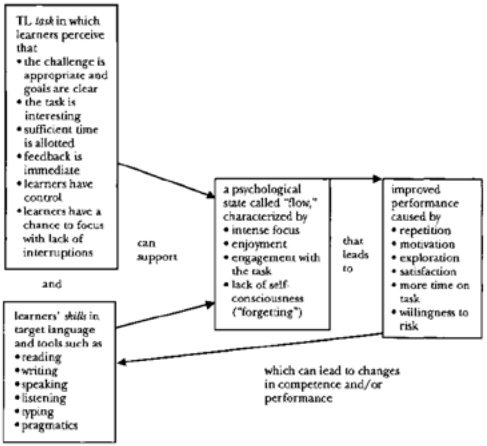

Figure 1. Model of flow in language learning acquisition. Reprinted from "A Study of Flow Theory in the Foreign Language Classroom" by J. Egbert, 2003, *Modern Language Journal*, *87*(4), 499-518. Copyright 2014 by John Wiley and Sons. Reprinted with permission.

Thus far has been discussed the importance of web aesthetics and how a technology-enhanced task encompassing Egbert's four dimensions can facilitate flow during learning. Next is an examination of how one may select appropriate web tools to engage students so that they may experience flow when doing a task. Puentedura's (2012) SAMR model is an excellent resource as the model enables us to classify technology used in teaching depending upon whether it Substitutes, Augments, Modifies, or Redefines the task. Substitution and augmentation refer to technology that enhances the learning, and modification and redefinition refer to technology that transforms the learning—in other words, tasks that would not be possible without the technology. The SAMR model supports teachers as they design, develop, and integrate online activities into their curriculum, allowing students to advance their own learning in a transformational manner. Figure 2 has examples to illustrate how the SAMR model can be used to classify technology used in teaching.

Flow may occur at any level within the SAMR model; however, tasks that fall within the modification and redefinition levels may be argued to be more flow inducing. Hoffman and Novak (1996) and Chen (2006) have argued that qualities of the Internet such as control, immediate feedback, and interactivity promote flow experiences. Transformational tasks tend to involve online interactivity and social networking that allow for the above qualities and that support Egbert's key components for a flow-promoting language-learning task. Research also shows that students are most engaged in activities considered to be in the redefinition and modification categories of the SAMR model (Bloemsma, 2013). Therefore, it is paramount that technology not serve as simply "transpositions of traditional learning materials into electronic formats" (Guy, 2009, p. 162), but rather, technology should aim to modify and, if possible, redefine language learning tasks so as to transform learning, engage learners, and facilitate flow in the EFL classroom.

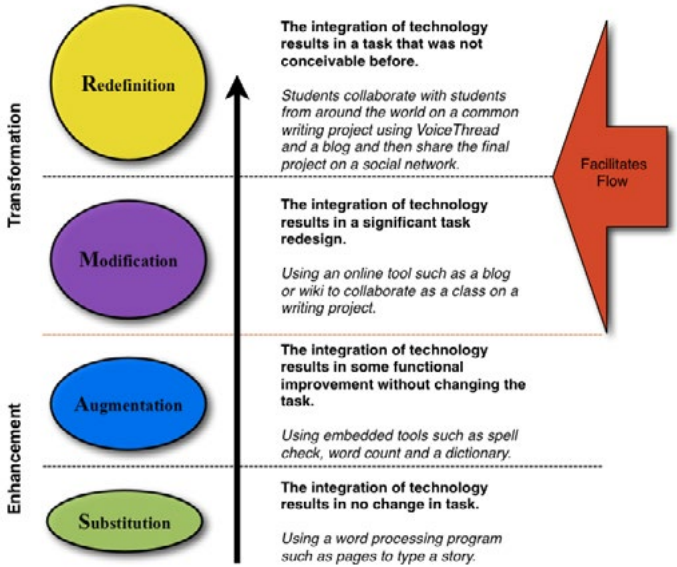

Figure 2. SAMR model with examples. Adapted from The SAMR Model: Background and Exemplars, In www.hippasus.com, n.d., by R. Puentedura. Retrieved 1 May 2014, from http://www.hippasus.com/rrpweblog/archives/2012/08/23/SAMR_BackgroundExemplars.pdf. Copyright under Creative Commons Attribution-Noncommercial-Share Alike 3.0 License. Adapted with permission.

Finally, when choosing web tools and creating content online, it is important to balance both design and functionality as they are both salient factors when creating content for students. Functionality plays an important role when dealing with EFL learners as students often navigate the content in the target language. The language needs to be simple and any kind of registration should be kept easy or if possible, abandoned all together. As for design, students should be interested in using the online tools. This is especially important in the case of non-English majors who tend to have lower motivation. In order to create a compelling learning environment, the space must be catered to the students and designed in a way that will engage them specifically. This may involve creating a questionnaire or interviewing students in an attempt to find out what online tools they are currently using and which tools they enjoy most. Doing so will allow teachers to not only judge the level of technical knowledge students have but also to select tools that students are likely to be interested in. The next section of this paper will introduce several free online tools that the author has selected based on the theoretical framework discussed. All tools have been successfully used by the author and were chosen due to their aesthetic design, usability, mobile-friendliness, and ability to modify or redefine language-learning tasks so as to engage learners and facilitate flow in the EFL classroom.

Recommended Tools for Online EFL Curriculum Development

Perhaps the greatest challenge when creating content online is selecting appropriate, simple, and aesthetically pleasing tools that will work together fluidly. There are a plethora of free educational tools available online; however, in the case of L2 learners, it is paramount that the tools be simple to use. Similarly, not all educators are tech savvy or have time to spend creating content online and therefore, the tools must be relatively simple to use on the teacher's end as well. Furthermore, mobile devices offer flexible learning that can happen anywhere and anytime, which adds a new dimension to e-learning design. Therefore, it is often essential that the technology function on a variety of mobile devices to support such flexibility. Ideally, the major-

ity of the tools within the website should augment and build on one another and be presented in a way that aesthetically engages students. A website created for mobile touchscreen devices allows educators to merge browser-based tools without the need to download individual applications (apps), which often results in isolation of the technology. Combing tools can help to create tasks that are not only engaging, but that reach the modification and redefinition levels of the SAMR model. Thus, with the exception of VoiceThread and SpeakPipe, all of the tools discussed in this paper can be accessed through a mobile browser without the need to download an app. Furthermore, it should be noted that all the tools introduced are currently being used together in a single website created by the author. With the above in mind and through much research and experience, the following free online tools are highly recommended.

Wix Website Builder <www.wix.com>

As the purpose of this paper is to demonstrate how educators may create a single online learning space, our tour of online tools begins with Wix, a web development platform. Such a platform is integral as it serves as the bedrock from which one may build and merge online tools to be used for language learning. Wix has an extremely easy-to-use interface that requires users to simply drag and drop their content. Upon sign-up, new users can quickly select an attractive website template and begin replacing text, photos, videos, and other elements with their own chosen content. Wix offers a number of excellent video tutorials along with a forum for troubleshooting. Wix also makes it very easy to embed web-based applications to make the website more interactive and it gives users unparalleled design capabilities, allowing educators to create visually engaging content for students. Moreover, Wix also allows owners to password protect their website or individual pages within the site and even choose to keep the site from showing up in search engines, an important option if students or teachers are worried about privacy. Wix is in HTML5, which means it will work on a variety of mobile devices such as iPads. It also has the option to allow users to create a duplicate site in a single click that will function on smartphones. Becasue Wix gives users an incredible amount of control over design, educators can create an online space encompassing a variety of aesthetic elements to enhance communication, engage students, and facilitate flow.

Figure 3. Author's Wix website (renauddavies.wix.com/hbjd).

VoiceThread <voicethread.com>

VoiceThread allows users to communicate with each other through text, voice, and video. Communication takes place around a slideshow that can incorporate both images and video. Participants can interact with the content in the slideshow by writing or drawing directly on the slides. It is even possible to pause a video and then write or draw directly on the screen while speaking. The video option in VoiceThread allows students to see participants talking, which serves as an excellent

tool for raising pragmatic awareness. One major advantage to using VoiceThread is that it is an asynchronous discussion. Consequently, students may record their spoken or video-recorded comments numerous times, listen as many times as needed, and take as long as they need to respond to questions and comments. This helps to encourage self-monitoring, increases comprehensible input, and supports autonomous language learning. As for flexibility, VoiceThread is a cloud application that functions within any web browser or mobile Apple device. An android application is due to be released soon. The VoiceThread website offers step-by-step video tutorials and there are a myriad of VoiceThreads on various topics that students can join for free. I have used VoiceThread to introduce my family from across the world as well as to connect students with English teachers all around Japan. VoiceThread can be easily embedded into a Wix website and may be considered a tool that redefines learning according to the SAMR model, as it allows students to communicate and collaborate with others around the world through multiple mediums and then present or share threads on social networks.

Figure 4. Author`s VoiceThread on class Wix website.

Padlet <padlet.com>

Padlet is an interactive message board that allows students to communicate with other users through text, pictures, music, and videos. Padlet is a browser-based tool that functions on all mobile devices and is self-explanatory with no login required. One of the benefits of Padlet is that it can be easily merged with other online technology. For example, Padlet may be embedded within a Wix website as a quick and easy communication tool or paired with an online presentation to allow for quick feedback and comments. I have also used Padlet as a way for students to collaborate in real time or respond anonymously during communication activities in class. Padlet is a tool that can be used to create a technology-enhanced task that can be merged with other tools to modify and redefine language-learning tasks according to the SAMR model. Please see the section on wireWAX as an example of how one may combine Padlet with another online tool to transform learning.

Figure 5. Author`s Padlet on class Wix website.

SpeakPipe <www.speakpipe.com>

This is a web application that allows visitors to a website to leave voice comments. Once added to a website, SpeakPipe appears as a tab on the side of the screen. Users click on the tab to launch a pop-up window that will prompt the user to begin recording a voice comment. Users can listen to and re-record their comment multiple times before sending it. This application is simple and requires no registration for users, making it an ideal tool not only for general website feedback, but also as a quick and simple way for students to practice their speaking. SpeakPipe is a tool that is best used in combination with other online tools. For example, I have used SpeakPipe as a way to add voice commenting to student blogs, allowing for an asynchronous interactive discussion. Using SpeakPipe with a blog or wiki allows educators to create a space where learners can have voice discussions around text, pictures, and video much like VoiceThread. SpeakPipe is compatible with the iPad, iPhone, and smartphones.

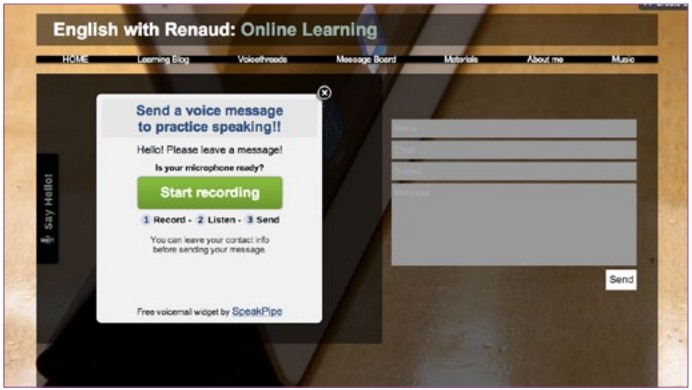

Figure 6. Author`s SpeakPipe on class Wix website.

Wordpress Blogs <www.wordpress.com>

Many types of tasks can facilitate the occurrence of flow; however, reading tasks in particular have been shown to greatly facilitate flow (Chen et al., 2000; Egbert, 2003; Krashen, 2011). Reading tasks that are computer based allow learners to enjoy instant feedback and the option to remain anonymous (Ghani & Deshpande, 1994). Technology can enhance reading tasks with audio and video all within an aesthetically designed interactive space such as a blog. Blogs, if utilized well, are an excellent tool for merging online technology.

I have used Wordpress.com to create free blogs for students. The blogs have been embedded into a Wix website on separate pages that are password protected. Once students visit the page and types in their password, they are brought to their class blog. Wordpress makes it possible to embed numerous videos and pictures within a single post. I often create videos for my students, which I then upload to YouTube and then embed within the blog. As previously mentioned, I also embed SpeakPipe to allow for voice commenting and to create podcasts so that students may listen to the teacher read the blog to them. Wordpress is user-friendly, so it is also quite easy to have students create their own blogs.

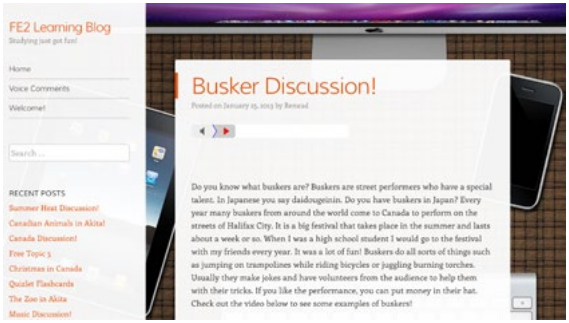

Figure 7. Author's Wordpress blog on class Wix website.

wireWAX<www.wirewax.com>

wireWAX is a web-based tool that allows users to add tracking hotspots or *tags* to people and objects in a video. Upon uploading a video, faces are automatically recognized and squares are added around each person's face in the video. Users then decide which squares to turn into interactive tags and choose how that tag will respond when clicked or touched. Each tag that is added to a video can trigger a pop-up of a text box, an image from Facebook, Flickr, or Instagram, a video from YouTube or Vimeo, or an audio clip from SoundCloud. Clicking on a tag does not send the user outside of the video. In other words, users can watch a video, view a picture, or listen to a different audio track, all within the original video. Users can upload their own video or import videos they would like to tag from YouTube or Vimeo.

I have used this service to create interactive introduction videos for my student website. I have also used wireWAX to create interactive quizzes by adding question tags to people or objects in short films. When a student touches a tag, the video pauses and a question pops up in the form of a text box or audio clip. Questions can focus on describing a specific moment in time in the video, for example, *Why is this person sad? What is happening? What do you think will happen next?* or *Describe this person.* This allows teachers to test their ability of students to read the body language and facial expressions in a short film in an extremely interactive and engaging way. Because wireWAX videos can be viewed on any mobile device, it is an excellent tool for homework assignments and can also be used by students to create interactive film projects. Furthermore, wireWAX videos may be embedded within a Padlet board, allowing for asynchronized discussion around the interactive video, and then shared on a social network. In other words, wireWAX allows educators to create tasks that are highly engaging and that were previously inconceivable, placing it within the redefinition level of the SAMR model.

Figure 8. Author`s WireWax activity examples.

Conclusion

Mobile technology is increasingly becoming a part of EFL curricula, resulting in a more interactive and engaging learning experience for students. As online technology advances, it is becoming easier for educators to create and design aesthetically pleasing online learning spaces that can help to stimulate students' motivation to learn and can transform language-learning

tasks. Utilizing the many free online tools that are now available, educators can incorporate some form of mobile technology into their curriculum to create a more multifaceted, flexible, and engaging learning experience for their students. However, as discussed, it is paramount that technology should aim to modify and, if possible, redefine language-learning tasks so as to enhance learning, engage learners, and facilitate flow in the EFL classroom. My own website, which I have created for my students, may serve as an example of how one may merge the technology discussed in this paper into a single online space. The website may be accessed at http://renauddavies.wix.com/hbjd. It is my hope that the tools and language learning website discussed in this paper may serve as a motivational guide for those new to mobile learning.

Bio Data

Renaud J. Davies has been teaching in Japan for over 7 years. He is currently interested in teaching with iPads and has a teaching with technology blog, which can be accessed at eslrenaud.wordpress.com. <renauddavies29@gmail.com>

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