It's Your Call: Addressing the Rapid Rise of Smartphone Use in EFL Instruction

Chad COTTAM and Cristina TAT

The rise of Smartphone learning

The concept of mobile assisted language learning (MALL), while still a relatively new field, represents a branch of technology that is advancing at a near exponential rate (Viberg & Gronlund, 2013). Within a twenty year period, we have seen the rise of the personal computer, tablet computers, and most recently, the Smartphone. This most recent innovation has penetrated the widest and furthest reaches of society, and due to the superiority exhibited in price, practicability, simplicity and function, it has become a highly useful resource for EFL students and teachers (Ahmed, 2015, Wu, 2014). Leis, Tohei and Cooke (2015) have suggested that Smartphone learning be credited with its own distinction from other types of mobile and computer assisted models. Smartphone Assisted Language Learning (SPALL) will also be used in this paper to discuss the specific issues that arise from Smartphone use in an EFL setting. However unlike Leis et.al (2015), the writer seeks to separate SPALL strictly within the context of smartphones, and not tablets, as they have suggested. This is done to distinguish the smartphone as a smaller, cheaper, and more popular form of technology, in comparison to tablets and other mobile devices.

As with the case of English grammar, no matter how descriptive or prescriptive scholars have been on the issue of its usage, the smartphone, is an ever evolving vehicle for communication (Milroy & Milroy, 1985).

From a distraction to a source of action: The increasing potential of Smartphone efficacy

Despite the continuing advances in CALL (Computer Assisted Language Learning) and MALL as pedagogic tools, the access to CALL and MALL (in

their broad definitions) are still very dependent on socio-economic and geographic factors. Computer rooms, personal computers and tablets for example, whilst common, are highly finite resources that require logistical input and considerable financial investment (Hiltzik, 2012). Meanwhile, the Smartphone, a small and comparably inexpensive device, with power and functionality comparable to any personal computer, has been penetrating the consumer market at unprecedented levels, resulting in a literal 100% saturation of the Japanese university student market ('40% of high schoolers use smartphones while studying | the Japan times', 2015).

The initial barrier to integrated Smartphone application, namely lack of student market penetration, has all but disappeared in the Japanese classroom, as even use by senior high school students in Japan has climbed to almost 70% ('Japan Smartphone penetration grows to 77%', 2015). Meanwhile hardware and software development, combined with development of Cloud technology has given the average Smartphone user the ability to do all of, if not more than what was previously only possible on larger personal computers (Arthur, 2016).

The ramifications and rapidity of this shift in Smartphone use have created an inevitable dilemma for teachers; particularly those that may be seeking full attention from students on communicative activities while in class. Students are now spending increasing time on their smartphones phones in class, and without clear intervention, this type of behavior can clearly be detrimental to the attention and performance of students. However, while the classroom is there to act as a focal point for learning, the depth of encroachment of technology on people's lives must be assessed and understood as an inevitable progression of human communicative development; not merely a distractive phase of students' social behavior (Diaz & Pimenta, 2015).

Considering the usage itself, both receptive and productive elements of language are utilized in smartphone use, and while this communication may not always adequately compensate for more traditional mediums of communication, smartphones are undoubtedly developing their own culture and style of communication (Azad, 2014, Beale, 2009). As the role of educator, it should be in the instructor's best interest to prepare students for their future, and taking into account the increasing mobility and interconnectivity of our lives, the adoption of

Smartphone related activity in the classroom is essential to stimulate the authentic language environments that communicative English theorists deem necessary for successful L2 acquisition (Akbari & Razavi, 2016).

Research rationale

The initial motive behind the study was the teacher's will to inspire more motivation and interest in EFL classes, while still maintaining a focus on the outlined syllabi that corresponded with the students' assigned textbooks. Many of the students discussed in the study were either overtly or covertly engaging in smartphone activity in class, despite clear understanding about the penalties for such behavior. This behavior, also observed in previous years, prompted me to focus less on disciplining unwanted smartphone usage, and more on monitoring students' engagement and participation when presented with SPALL activities. Within this framework, the main question of this action research was, "Is it feasible to encourage a culture of functional, low-restriction smartphone use in the EFL classroom?"

Pretence for action research

Leis, Tohei & Cooke (2015) have shown that students who are given freedom to use their personal Smartphone tend to be more successful in achieving set pedagogic goals when compared with classmates that are denied unrestricted use. In another study, Ahmed (2015) has took a more subjective approach, seeking to document the habits of students that use Smartphones, however ultimately finding objective evidence that students' motivation was increased by their smartphone use in class. With these and other similar studies, the positive effects of smartphones have been quantitatively documented. However, this 'hard' data, by its very nature, gives us a static picture of what is essentially, a dynamic and evolving phenomenon.

Considering the smartphone channel of communication as a fluid and constantly growing medium, studies such as those above, along with other previous positive, quantitative findings, are definitely encouraging to the cause of smartphone integration, yet give no indication as to where educators should start or end the process of integrating smartphones into a classroom environment.

Accordingly, a time for more unorthodox measures is at hand; where no amount of quantitative research alone will be able to provide practical solutions to a developing issue. Hence, action research, "as a means towards creating meaning and understanding in problematic social situations and improving the quality of human interactions and practices within those situations" (Burns, 2005, pg. 57), is highly suitable to address the issue of smartphones in the EFL classroom.

In order to avoid obsolescence by the time of publishing, the research presented below does not focus on the specifics of any type of smartphone application, but rather questions the possibilities for SPALL in the context of its overall value in certain classroom settings, and the trend that is leading mobile technology to become the dominant format humanistic, computer interaction (Arthur, 2016, *) . In essence, this research not only seeks to answer whether smartphones can feasibly play an integral role in EFL instruction, but to determine if smartphone integration leads to increased, positive engagement in EFL studies. Further still, the study draws attention to the need for a restructuring of EFL classrooms, as the forthcoming paradigm shift away from older, larger and less mobile technology draws closer.

Method

Population

The following action research was carried out at a private Japanese university in Western Japan. Participants involved ranged from false beginner to high intermediate levels of English proficiency, covering 1st to 4th year students of various ages, including several mature age students. All students were enrolled in a foreign language course, with English as a requirement for first and second year studies. In order to clearly elucidate the different format of classes in the study, students were designated as either a) mandatory class students, or b) optional class students, with a total of X students being directly involved in data collection, and X students providing control data from other classes.

Research question & goals

The purpose of the study was to determine the extent of possibilities for SPALL across a wide range of proficiency levels and course types, and to document the functional effect of SPALL on these students' performance; in this

case, measured by engagement in both class activities or homework, and by student feedback. The study was carried out with the intention of allowing students to explore the limits of Smartphone use, both inside and outside the classroom, while continually emphasizing the role of technology as a tool, rather than a center-piece of students' learning experience.

Types of data collected

Data from students was collected across six different classes. The following collection methods used, and types of data collected were as follows:

Social networking (Facebook groups)

Social networking, was used by 100% of the students involved. Through social networking, several key data were collected, including engagement in English outside of class, length of response and preferred communication styles. Engagement in homework was then compared against data from students studying the same syllabus in a different class; namely students that did not utilize Facebook for homework activities.

Teacher diaries

Our diary consisted of daily recording of each classes' engagement in class activities, quality of engagement in class (as measured through the quality of production by students, and general class motivation when instructed to undertake various in-class activities.

An initial and final questionnaire

An initial, and then final questionnaire were given to students in order to gauge their overall impression of the class. While the survey did not ask questions related directly to SPALL, several students gave revealing answers about the adoption of smartphones in a classroom environment. These responses are used to better frame some of the in-class observations recorded in the teacher diary

Activities

During the course of two semesters, students were encouraged to use the following smartphone functions for various in-class and self-study activities (those with asterisk indicate activities that were not explicitly encouraged due to the counterintuitive function in a class environment):

Table 1. Smartphone applications and their macro functions as utilized by EFL students

Smartphone Application/function	Macro function	Example project undertaken
Calculator	Numeracy, dealing with currency and general math tasks	Tourism Topic class-Ss convered foreign currency to yen and calculating trip costs
Cloud Storage (Dropbox, OneDrive)	Uploading videos and photos for various projects, sharing information	Presentation Workshop-Ss uploaded their photos to a group folder to help organize into a shared presentation
Dictionaries*	Looking up meaning, checking spelling, shadowing activities	General English-Ss in groups are given a set time to scan a text. Ss take turns identifying unknown vocabulary while other Ss confirm meaning
Search engines	Various research activities, information retrieval activities) English learning applications (self-study	All classes-Ss were assigned questions, and required to retrieve info, then relay it to the class
Social networking	Self study, reading and writing, opinion forming, discourse, peer correction activities	All classes-Ss were given homework via Facebook, and asked to complete their task, while commenting on other Ss contributions
Survey Applications	Group surveys	All classes-Ss were asked to participate in surveys relating to their opinions. Results can be used, for example, to help Ss form opinions, or influence the focus of the lesson.
Translation applications*	Translation, alternate meaning activities	These were generally avoided, however I would occasionally use applications to highlight their inaccuracy
Photo editing applications	Blogs, individual and group projects and presentations	General English-students were introduced to basic editing techniques to add comments to their photos or enhance the detail of their chosen image
Voice recognition applications	Pronunciation activities and practice	General English-Ss challenged Siri to obey commands, in order to develop more fluent pronuciation
Video editing applications	Individual and group projects and presentations	Tourism Topic Class-Students developed a video in iMovie, which included student shot footage, photos and narration

Implementation

From the outset of first semester classes, all students in all classes were required to sign up to a private Facebook group corresponding with their course. Within a week, 100% of students were capable of joining their assigned group. While there are many other options for social networking sites in the era of Web 2.0, it was decided that Facebook groups offered the minimum privacy features required, while still being highly accessible to most students, especially those who had limited experience using Internet applications (McBride, 2009). Even though some students had never used Facebook, other students were quick to assist them with detailed instructions of how to join and enter the online group.

From this initial response to the Facebook request, it was obvious that all students had smartphones, and were somewhat 'savvy' with social networking sites. The extent to which students knew how to use their phones for other purposes varied greatly from that point, and for the most part, the students understood little about the potential of their smartphone as a powerful medium for stylistic learning, self expression, and interaction.

As shown in table 1., various smartphone applications were utilized inside and outside of class for a host of projects and daily functions. The key to successful use of these applications came from my ability to model the use of the technology. I did this by projecting my own smartphone onto the whiteboard, using a lightning to iPhone adaptor that connects to a traditional pin projector cable. Using this resource, students were also encouraged to share their work on the projector whenever required.

Expectations for students

In all of the teachers' classes, expectations about the appropriate use of smartphones were laid out clearly in the initial classes. The expectations were unambiguous; namely; smartphones were acceptable for use only when the teacher gave explicit permission to do so. In hindsight, this was an unreasonable expectation for all students. Variations in motivation, previous class experience, and pre-conceived attitudes about English all possibly contributed to the reluctance of many students to follow the instructions given. Sensing that enforcement of this expectation would be counter-intuitive to a healthy development of new

student-teacher relationships, I changed 'tact' early in the first semester, ultimately deciding to allow smartphones at any time, granted that the students were justly claiming to be using their phones for English related purposes.

This distinct granting of autonomy to students brought with it unexpected results; students who lacked discipline in their studies, or motivation to participate in class, continued to use their phones for non-academic purposes, while the more motivated students adhered to the basic policy that was in place. The potential advantage of this situation was that when the teacher asked students to use their smartphone as part of an activity, all students were, regardless of motivation, somewhat engaged in the activity. On the other hand, the preconceived drawbacks of such autonomy, discussed further on, did not materialize as expected.

General, In-Class Observations

Unsurprisingly, lower proficiency students, students repeating courses, and students with intensive, extra-curricular club schedules were consistently observed as lapsing in task concentration more frequently, and consequently more prone to misusing their smartphone during class time. Nonetheless, those same students were observed as participating actively when asked to use their smartphone. In short, students previously engaged in other smartphone activities showed little hesitation in re-directing their attention to assigned smartphone activities, despite their obvious reluctance to be involved in other real-time class activities.

Unlike the core communicative classes, where students were placed in classes based on TOEIC IP results, the ESP classes were electives, and had a high variation of proficiency among class members. Besides this challenge, the students brought various unique learning habits and expectations into the class. Surprisingly, the older students were, as a whole, open to using smartphones to enhance their learning, and expressed a sense of comfort in being able to use their phone as a support and scaffold for in-class English production. The ease at which they took to the activities indicated that some students had been exposed to SPALL through previous EFL classes, although candid responses about their experience revealed that this was not necessarily the case. To the knowledge of the writer, one other native teacher had utilized smartphones in previous classes, but for the most part, teachers simply tolerated their use, without setting

guidelines or specific activities with pedagogic objectives.

Communicative English classes

For both the first and second year communicative classes, smartphone activities were highly diverse, somewhat experimental, and in-line with the research question, carried out without strict boundaries..

Topic and Workshop classes

Along with the basic applications utilized in the communicative classes, students in the topic and workshop classes were given the chance to utilize various new and highly powerful applications for the sake of research and group projects. Presentation classes were introduced to PowerPoint and Keynote, as part of their syllabus. These students also accessed the web to create a visual backdrop for their presentations, and privately analyzed presentations from YouTube.
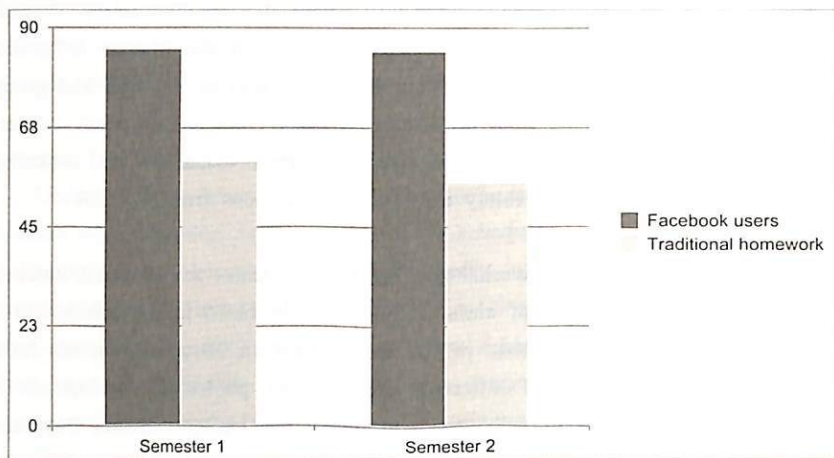
Similarly, the tourism workshop required students to conduct detailed research, both in and outside of class. This class culminated in the creation of a tourism video that captured some of the more unknown attractions in the local area. To achieve this, students collected video or took photos of the location in their own time, and then uploaded them to the cloud sharing website, Dropbox. From there, students filmed some scenes on campus, and recorded the audio using a smartphone microphone. Finally, the video was produced on an iPhone, using iMovie, and uploaded to a private YouTube account. Final surveys from two students indicated that this was the highlight of their learning experience, giving them both more confidence in using English and using video production software.

Engagement in homework

Unless instructed to prepare for other assessment, students were directed to complete a homework task after each class, via their Facebook group. The task assigned was consistently based on work covered that same day, and served the purpose of revision. (not Preview). Although the quality of work varied, the real-time feedback from the students was highly consistent, especially for the students that showed a reluctance to participate in speaking activities. Assessment for most classes was heavily weighted towards homework, so the chance to participate in

a blog-like environment possibly gave students the opportunity to work in a less anxiety inducing study space, and therefore took the pressure off their need to perform as well in the other communicative tasks.

To further analyze this further, the homework participation rates of students enrolled in the writer's 1st year communicative English course were compared to students of a another 1st year communicative English class that did not utilize Facebook groups. The results of a 15 week comparison are tabled below.

One of the great features of online learning, long espoused by educators utilizing technology such as Moodle, give teachers a detailed view of the students study behaviors, such as the time spent studying, and information read (Moodle). Facebook groups offers similar features, such as the ability to see if a message has been read, and at what time something was posted to the group. This particular insight gave the teacher some valuable information about students study habits. In particular, the time of posting, matched with the quality of the post was valuable in gauging how thoroughly students were studying.

Discussion

As can be seen through observations, self-study, and various survey responses, the overall engagement in SPALL activities was high, and this pro-duced successful pedagogic outcomes, within the 'engagement' model *ref.

However, before jumping to the conclusion of total success, it is important to review the more contentious areas of smartphone usage, and how these affected the students' overall learning capacity and proficiency level.

One could argue that smartphones are a distraction to students engaging in face-to-face and other important forms of communication. This may be true in many instances, however the writer would argue, that for this current generation of young people, multi-tasking between technology and face-to-face communication, while not always respectful in social situations, is an intuitive skill that is developing rapidly in the current social/technological environment. In the case of this research project, the teacher continually used his phone in class to control AV material, preview homework, and for various other class related reasons. From all observations, the discord between phone users and the class only came from students who blatantly refused to follow instructions from the teacher. These were the same students that were identified as equally unresponsive in their other classes. The interesting observation about these 'problem' students, as mentioned earlier, was their willingness to engage in SPALL activities if they were interrupted from their personal smartphone activity.

The students that followed instructions well had no problem dis-engaging from their devices when instructed, so it can be postulated that students in higher level classes with strong motivation to achieve would have little problem with self control in this area.

Conclusion

While technology in the classroom is changing at an ever increasing pace, the value of personal devices such as smartphones in enhancing or inhibiting student productivity has yet to be fully tested. By conducting action research, a broader scope of understanding could be made about how smartphone devices are affecting students' performance.

Overall, students have generally reacted well to the incorporation of smartphones into their learning programs, and generally contribute more in situations such as homework and collaborative learning. While seemingly successful,

the integration of smartphones into general curriculum should be approached cautiously, as further research is presented in terms of benefits to students' health and social well being.

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Abstract

This paper examines the increasing significance of Smartphone applied language learning (SPALL) by examining current research, and by presenting the results of action research conducted over a two semester period in a Japanese university setting. I wanted to qualitatively examine whether the increased use, increased awareness, and patent encouragement of Smartphone use in EFL settings was a suitable pedagogic approach for various types of EFL classes and EFL students. Particular attention was given to two, polarized groups of students; those from elementary level, general English classes, and those in higher level, topic or workshop style classes.

Through active enquiry, it was shown that the incorporation of Smartphones into classrooms brings with it many practical benefits for students and teachers. These results of this qualitative and quantitative study, when viewed in the context of current technological developments, help bring attention to the inevitable and unparalleled shift in communicative mediums affecting the current and future generations of language learners and educators. It is imperative, in my opinion, that based on the technological developments and new learning opportunities discussed in this study, that smartphones now be accepted by educators as an inevitable part of our learners' lives, and further still, used extensively as a learning resource in college EFL environments.