

## **Investigating the Benefits of Mobile Phone Technology toward the Teaching and Learning Practices at Higher Schools**

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### **Abstract**

This article intends to explore the benefits of using M-Learning (mobile phone Learning) to support teaching and learning process for digital immigrant teachers. Digital immigrant teachers are those who want to move from conventional way to more technology enhanced language learning. The exploration on using facilities of mobile learning for classroom teaching will enable teachers to make use of internet access, to pursue their students' technology literacy, to access to a wealth of ready-made ELT materials and to integrate technologies of mobile phone into teaching.

The exploration found that the potential uses of mobile phone for learning certainly bring implication for both teacher and students under the issues of technology application literacy, intellectual authority, students-students-teacher collaboration, and teaching and learning reflection and evaluation skill development. Above all, teachers can use many applications of their mobile phone from simple to sophisticated ones. They can use texting facilities (sms) for checking students' work progress, use free social media to give consultation, and many other features that facilitate them to transfer knowledge and help students in learning either in or out of classroom. Certainly, they also need to consider the flaws in mobile phone and keep learning to be familiar with technology development.

Furthermore, mobile phone also improve teaching qualities in terms of creating contextual learning outside the classroom, for fieldtrips and for professional development; supporting context-sensitive leaning in non-formal settings, connecting the learning across contexts and human life; making useful learning sites involving technology, people and environment, producing system enabling teacher to deliver quizzes for learning topics, encourage students to practice making theory questions, designing a media board for learners to construct online web pages by sending messages, pictures and audio through their phones, and reaching beyond the traditional settings.

**Keywords:** Mobile phone, teaching and learning, advance technology

## **Introduction**

Electronic devices become superstar in this millennium and digital era. The producers of personal computer, internet, television, mobile phone, laptop, digital camera, interactive whiteboard, etc seem compete each other to attract people with their advance technologies. The technology booming also enters into classroom teaching. Conventional instruction methods that centre on teacher are regarded ineffective anymore. Teachers need technology to assist their teaching and one of potential digital technology products to be used is mobile phone (MP). Mobile phone-or also called hand phone, cellular phone, cell phone- brings more functional usages for teachers. Boyle in Bradley et al (2009) explain some benefits of mobile phone, such as to create multimedia content, to display high quality color screens, edit texts and images, play back audio and video, and also photographs. MP has greater storage capacities, and has mutual connectivity with networking facilities in personal computer, Bluetooth and Wi-Fi.

The users today are spoilt with diverse sophisticated advance technology products in their mobile phone. MP provides many application as mostly needed by modern people, like short message service, multimedia service, browsing engines, downloading application, digital camera, on-line and off-line, teleconference media, video call service, television channels, remote control, sending emails, sharing content, taking pictures, and many others. (see <http://www.buzzle.com/articles/latest-mobile-phones-appealing-looks-and-advanced-technologies.html>). You should not go home to watch TV, go to laboratory to access internet in PC, rent CD to compile MP3 songs, bring camera to recording or taking pictures, keep tape recorder to record your lectures, and so on. These excellent facilities attract more people to buy mobile phone. For the whole world, UN News Centre reports that people who own mobile phone hit 4 billion this year ([www.un.org/apps/news/story.asp?NewsID=2825](http://www.un.org/apps/news/story.asp?NewsID=2825)). Meanwhile in Indonesia, the MP users has increased significantly from 20% in 2005 to 75% in 2010 (<http://www.nielsen.com/us/en/insights/news/2011/mobile-phone-penetration-in-indonesia-triples-in-five-years.html>). In reality, Kemenkominfo (The Ministry of Communication and Information) announce that in 2014 the number of people officially registered to use hand phone is 270 million. It grows faster than predicted which envisages penetration of hand phone in Indonesia will reach 44,7 million users. (<http://www.statista.com/statistics/266729/smartphone-users-in-indonesia/>).

However, this growing number of MP users is not in line with the use of MP application in teaching in most developing countries. Only few number of teachers who have been familiar and convenient to use the facilities in their mobile phone to assist their practices of teaching in the classroom. Dudeney & Hockly (2008:9) found that some teachers had negative perception toward the incoming roles of technology in the classroom. They found that some teachers' commented that they did not really "welcome" the technology because it downgrade the quality of interaction between teacher-students, they feel unconfident with themselves since they know less than their students, they depress with complexity in technology, and they prefer status quo to rely on course books to any forms of digital technology. This gap of potential application of mobile phone in teaching and the teachers' negative perception and attitude toward technology becomes

the center of this writing. The writer is to present the real advantages of using mobile phone technology in the classroom and to challenge the teachers to apply it for teaching.

### **Why Hand Phone?**

Prensky in Jonassen et al (2008) informs that some developed countries such as European countries, Japan, China and Korea has been using mobile phone as learning tool for a long period. Indonesia as a fast growing developing country is believed capable to go after those countries for Indonesia has some potential qualities in it, such as:

1. Most of teachers and students in Indonesia have mobile phone. Even some of them have more than one.
2. Nowadays mobile phones are relatively affordable. Phone market indulge people with various types of phone from different manufactures
3. Mobile phone is almost become a necessity for teachers and students for different purposes
4. The providers of communication offer people a lot of facilities and applications
5. Handy and practical to use in any occasion

### **Implications for teacher and students**

Promoting mobile phone technology into classroom teaching certainly brings consequences and implications for both teacher and students. Jonassen et al (2008: vi-viii) mentions implications that a teacher should fulfill too promote m-learning in her class: teacher has to possess intellectual authorities, shift her roles to help learners' construct their own ideas, get more familiarity with the technology, has adequate skills and fluency in using it, help students discover meaningful concepts and self-evaluation. For dummy teachers, these implications are not essay issues. As stated by Wu (2010), an intellectual authority teacher is someone who possesses "the authority of arguments that prevail by virtue of good reasoning and do not depend on coercion or convention". It implies that whenever a teacher has an initiative to apply the benefits of useful technology into their classroom teaching, she must have strong confidence and self-belief that what she is doing is something merit for students and school. Yes, maybe there will be challenge, complaint, negative responses, rejection from super ordinates, colleague, or subordinates; she should go on with her belief. It is not easy but not impossible neither. In many cases, there has been some teacher who must conform to management who has institutional authority to apply facilities in mobile phone for learning. When the management do not support the initiative, and the students are not happy with this teaching then the intellectual authority cannot function properly. When the institutional authority conflicts with an intellectual authority, win-win solution conformity can be optionally a way out.

Secondly, a teacher who wants to use mobile learning should get more familiarity with the technology, and also has enough skills and fluency of usage. Familiarity means "the state of being familiar with something, or the state of having knowledge about something." (Merriam-Webster, 2015). Thus, this implication requires teachers to have

sufficient knowledge and information about facilities or applications in their hand phone to be used in their teaching. How they can invite students to learn using mobile phone if they themselves are not familiar yet with the application.

Furthermore, Jonassen et al (2008) add more implication of teachers in applying mobile phone technology, which is to develop their skills in articulating, reflecting, and evaluating what they know, to establish clear goals of instruction, to control their activities and teaching efforts, and to collaborate with colleagues and students. Skills development of knowledge articulation, reflection and evaluation is vital for teachers since technology demands the teachers' initiative and creativity to implement it. Insufficient quality in this point may make teachers stressful, frustrated, blank-minded and apathetic, and even phobia with technology. Meanwhile, for students the use of mobile phone technology for learning also necessitate students to arrange clear goals of learning, manage relevant activities and useful learning efforts to reach learning objectives, and also discuss with their classmates to get feedback and input and also students can consult to teacher informally in order to comprehend the material better.

### **Applications of Mobile Phone Technology in the Classroom**

For many teachers, using mobile phone for teaching English could be something new, and unimaginable. They think mobile phone is enough for communication purposes only. Indeed, mobile phone has greater functions. It can be used for testing practice, interview students, record drama or role-play, streaming, tell about an image, answer quizzes, reminder, and so forth. Students can also get information of learning material quickly, doing submission online, sending messages instantly, request confirmation, etc. some telecommunication providers such as Telkomsel, Indosat offer special packages for internet browsing, chatting and calling. Thus, a teacher can ask all her/his students to have same Simcard in the same time or activate their double Simcard facilities from their mobile phone. She also may encourage students to use email, browsing, and downloading, uploading or other internet-based facilities to support the learning process. Some teachers in the world have made experiments in it. Bradley and his colleagues (2009) have conducted action research to apply Flash Lite programs for their students using Nokia 91 type. It is designed to develop multimedia learning and content for mobile phone which is interactive, highly visual, engaging, and effective for learners. They use the application to teach students how to make a reference more efficient using MP. In Russia, China, and Far East, Motorola recently developed the Wireless Local Loop (WiLL) system that enable teachers to use their mobile phone system to support their teaching activities (Liana, 1995). The UK Open University has used multi-way phone conferences to support distance learning in remote areas. It takes few minutes to get a tutorial group of 8 people connected and it works well with any protocol rules. (George, 1998 in Maier & Warren, 2000). Dudeney & Hockly (2007) list some successful mobile phones-assisted learning projects: Agnes-Kukulka-Hulme in Italy, and Mobile CALL Projects in Japan.

Certainly, each mobile phone manufacturers have their own features. Generally applications in a hand phone originate from two main sources: built in application from

the hand phone producers, and from operating system providers. Among others, the most popular operating system providers are iOS for Apple, Symbian for Nokia and Android for Samsung. Those systems have their own uniqueness. Consumers may choose as their needs. For example, application WPS Office in Android allows teachers to create long text for teaching as good as Microsoft Word in personal computer. They can send the finished text to their students through email, or Whatsapp. The BlackBerry users also may use BlackBerry Messenger to send the text, but may be the user cannot type the text there before as BB does not provide the feature.

### **What Can You Do with Hand Phone?**

With the advance improvement and innovation in the mobile technology today, teachers can do more than a lot to use technology in their teaching. Dudeney & Hockly (2008:156) suggest some learning activities using Hand Phone, such as using SMS text question for class activities, sending composition assignment through texting technique, rewriting texting language properly, or posting a daily English phrase and word to students.

Research and projects on the use of mobile phone technology in teaching have been conducted in great numbers. Kukulka-Hulma et al (2009) mention some important projects conducted all around the world, namely HandLeR project in 2007 by the University of Birmingham, MOBILearn in Europe, and M-Learning in 2005 by the UK Learning and Skills Development Agency (LSDA). Those researches resulted in some essential implementation of mobile phone in teaching, as it can be used:

1. for contextual learning outside the classroom, for field trips and for professional development
2. to support context-sensitive learning in non-formal settings
3. to connect the learning across contexts and human life
4. to create useful learning sites involving technology, people and environment
5. to create system enabling teacher to deliver SMS quizzes for certain learning topics,
6. to invent mobile phone games that encourage students to practice making theory questions,
7. to design a media board for learners to construct online web pages by sending messages, pictures and audio through their phones
8. to reach places that normally traditional formal classroom learning cannot
9. to offer multi forms of applications as solution through trial and experiment with handy gadget, and
10. to maintain teaching and learning interactions that uphold the value of creativity, collaboration and communication.

### **Weaknesses of Mobile Phone and Its Application in Teaching & learning**

Instead of those benefits, teachers must be also aware of their flaws; small size screen to read, insufficient storage spaces compared to computer, breakable, easy to be left or disappear, radiation issue, weak signals, expensive connection cost, teachers' and students' low skills and fluency in using mobile phone, unsecure download, and

impossibility for the teachers to control their students, and easy to hack into.

As the nature of technology to adjust with market demand, the emerging product of mobile phone has offered facilities to solve those problems. Now teachers can purchase any mobile phone with larger screen from 5-7" (phonelet) to get wider display. Producer such as ASUS and LENOVO has manufactured mobile phone with memory capacity up to 16 gigabytes excluded external memory that may store data until 64 gb. For signal issue, facility of WIFI in campus will be reliable to support stable connection. As an alternative, some data providers such as SIMPATI, XL, IM3 and many others provide reasonable package data. Take for example; teachers need spend 40.000 rupiahs only to have 5 GB data from Simpati. It is enough for browsing, downloading and streaming works for about one month. The remaining problems like users' low skill and misbehavior controlling can be prevented through regular training and monitoring system.

Referring to project of HandLeR by Sharples (2000), implementation of mobile learning technology, including hand phone, require com complex supporting features that need to be considered by implementing teachers. To run the technology, he proposes some standard criteria that the technology should be highly portable, individual, unobtrusive, available anywhere, adaptable to learning context, persistent knowledge and motivation, useful for everyday needs, and easy to used by everyone. This condition will exist if only there is mutual collaborative cooperation between teacher, students and school authority.

### **Challenges for future**

Flaws the teacher found in promoting mobile phone technology above should not be constraints to continue the teachers' enlightening actions. Those weaknesses, in contrast, shall assume as challenges in the future. Some challenges teachers and students should deal with probably are:

- a. To integrate the mobile learning and students' own phone into campus-based teaching designs coherently
- b. To create more contents supporting teaching and learning activities, m-portfolios, online assignment, interactive peer learning room, etc
- c. To arrange mutual cooperation with mobile device manufacturers and information and communication providers to make multimedia contents available more on students' mobile phone with affordable prices, quick access, and environment-friendly.
- d. To build an integrated campus transmission unit which enable students and other related parties in university community may run content programs in their mobile phone cheaply, -or free may be-, fast speed on accessing, downloading and uploading the information or given tasks,
- e. To schedule regularly intensive effective training for teachers to upgrade their skills and fluency in integrating mobile phone technology into their teaching practices.

In addition, Cui & Wang (2008) suggested elements and steps to be considered and to take advantage of mobile phone best:

1. Attitudes: the teachers should advocate and promote the integration of mobile phone in teaching and learning fields and put necessary attention to students' abuses on it.
2. Prepare quality multimedia materials online: the online teaching system has abilities to convert traditional classical lectures to the online format and encourage students to learn English interestingly
3. Transmission system: the university has to cooperate with telecommunications companies to maintain and upgrade the mobile phone transmission system to create comfortable environment for students
4. Teachers' training. As the key factor in this application, teachers should become familiar with all updated technology in mobile phones, and acquire essential skills to apply it
5. Students' participation. Students should have basic computer literacy and actively engage in using updated technology of mobile phone
6. Development of mobile phone and its application: telecommunication and information companies, programmers, game designers and other facilities providers should produce more meaningful and inspiring technologies for students.

### **Conclusion: What Teachers Must Do?**

Changes always assume risks. In the mobile phone case, shifting from traditional ways of teaching into digital technology is not really a piece of cake for teachers. A lot of things have to do. Many tasks should be prepared. Teacher must be familiar with the technology in mobile phone before assigning the students to do so. S/he should encourage his/ her students to make technology as friend, and upgrade his/ her knowledge, skills, and abilities on and on. However, considering our job as a professional, I invite myself and you all to take those risks. We have to be adjustable with the emerging improvement in education and technology.

According to Bradley et al (2009) in their research, the students' feedback on application of Flash Lite has been extremely positive, and is very encouraging (83%). They think that accessing learning materials via mobile phone is something cool, brilliant, handy, useful, engaging, interesting and enjoyable. These students' excitement and enthusiasm in using mobile phone technology for improving their knowledge is much more valuable than sufficient rewards for taking the risks. Rethinking any problems may arise, considering available options, finding creative solutions, adapting the technology with local conditions, stimulating him/herself to be always technology-adapted, and keep promoting students to engage in technology are the best principles a teacher needs to have. This is unwise anymore for university teachers or students of EFL context to use their mobile phones for personal business only. It is nonproductive actions when they silent or switch off their mobile phone during class meeting. Now, it is a right time for them to take more academic intellectual actions and to integrate technology with education, i.e. by promoting mobile phone (mobile phone) in EFL language teaching and

learning environment.

To sum up this writing, the success of implementing mobile phone technology into teaching practices can be assessed through the following factors (Mwanza-Simwami,2011):

1. The technology engagement with learning objectives supported by directed feedback
2. Quality of online learning dialogue between teacher-student-student
3. Maintenance of appropriate and personalized feedback from teacher-students and vice versa
4. Class management, particularly on how teacher and the students deal with problems of networking and trouble alerting system
5. Learners' and teacher's awareness toward the value of learning activities.

All those measurement in the end will drive to the ending whether the existence of technology in the mobile phone will enhance the quality of teaching and learning, or conversely create negative washback toward the interest of teacher and students to utilize mobile phone application-based advance technology in their teaching and learning activities. Amin.

Wallahu a'lam bis showab.

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