Potential of Mobile Learning in Teaching of ESL Academic Writing

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Abstract

The potentials of mobile learning in teaching academic writing skills for ESL students are explored in this paper. Although there have been studies on MALL to improve writing skills, academic writing was never really touched. Few aspects are covered like the changes in educational technology, defining MALL, identifying issues in academic writing by ESL students, approaches used in academic writing and pedagogical approaches used in MALL. Through the discussions, it is proved that mobile learning can be integrated into academic writing by using it with several writing approaches which complements the pedagogical advantages in mobile devices. Based on past studies and the discussion, it can be concluded that the potential of mobile learning in teaching ESL academic writing is high.

Keywords: MALL, mobile learning, teaching, writing, academic writing

1. Introduction

Mobile Assisted Language Learning (MALL) is gaining popularity everywhere especially in Europe, the United States and parts of East Asia that are of English medium (Nik Mastura et al., 2011). Even though its concept is still emerging and unclear (Traxler, 2007), many are using it due to its portability, connectivity and the mere fact that almost everybody owns a smart mobile (Samsiah et al., 2013).

Although mobile learning does have its downside compared to a computer, there are many studies on the usage of mobile learning for specific language skills like listening, speaking, reading, grammar and vocabulary (Guerrero et al., 2010; Suneetha, 2013; Lee & Kim, 2013). However, there are not many studies on how to use mobile-learning to teach writing skills. This can be seen clearly when Burston (2013) did a bibliography which consists of 345 publications on Mobile Assisted Language Learning from 1994 to 2012. Out of the 345 publications, less than 5% used MALL to enhance writing skills.

Thus, this paper would like to explore the potentials of mobile learning in teaching academic writing skills for ESL students by covering a few aspects. First, is to see the changes in educational technology to see how it has evolved to mobile learning. Then, MALL is defined and its features are listed to see the suitability for writing classes. After that, the paper would like to identify what are the issues faced in academic writing by ESL or EFL students. Next, all the different approaches that can be used to teach academic writing is listed and lastly, the pedagogical advantages in mobile learning are also mentioned to see how well it can complement with the writing strategies.

2. Changes in Educational Technology

Educational technology can be any tool that helps to deliver and to receive information between the educator and learner (Humes & Raisner, 2010). It is always changing because both education and technology are evolving and this can be seen clearly through the brief history of changes in educational technology that has led to mobile learning.

In the early 19th century, education was restricted mostly in the classroom where teachers rely on different methodologies and theoretical conceptualisation. Slowly, technology was introduced where teachers incorporate radios, overhead projectors, and silent films as part of their teaching tool. Technology started to develop fast when the television was invented in the 1940s, where learning started to become more visual and interesting. By the 1950s, headphones became popular to promote second language learning. Soon, in the 1970s, the use of tapes as a school software was found to be useful in enhancing speaking and listening skills.

Computer was a game changer in education technology however it was not used for educational purposes until the late 1960s (Gündüz, 2005) as the ratio of computers to students is very low. Only in the beginning of 1980s could computers be found in many schools in developed countries and by this time, computer assisted language learning (CALL) software is also available on the market (Gündüz, 2005). CALL allowed learning to become more student-centred as students can access computers at home to do further research and study what they want at their own pace.

The integration of information and communication technologies (ICT) was then developed as Ybarra and Green (2003) noted that students need further language support in learning languages. ICT cover a range of technologies and are used to communicate, create, disseminate and manage information (Melor et al., 2013). Based on a study by Nomass (2013), there are numerous numbers of ICT that can be used in the teaching and learning process and it is divided by all the four skills. For instances, ICT such as using computers, CD players, computer reading based-programs, multimedia software, browsing the Internet, electronic dictionaries, and many more can be used to assist learners. However, ICT is still not fully developed due to limited infrastructure and the high cost to get internet access in some developing countries (Melor et al., 2013).

There are many forms of ICTs, but among all, mobile devices are thought to be a more suitable tool for advancing education (Valk et al., 2010) as almost 90% of students under the age of 18 has access to mobile technology. Thus it only makes sense for educational technology to turn to mobile assisted language learning (MALL). This is supported by Sharma & Kitchens (2004) as cited in Norazah et al (2010) stating that the change is unavoidable as mobile technologies provide many unique facilities. Samsiah et al. (2013) also mentioned that MALL is rapidly growing because learners can have access to it anywhere and anytime without the monitor of educators, making learners more autonomous. This proves to be an advantage as Suneetha (2013) said that the experience of being independent can encourage students to continue their learning process by themselves for future purposes. However, some researchers doubt its effectiveness as the excitement of using mobile devices may be short-term (Samsiah et al., 2012). Furthermore, not all learning activities are suitable to be used with mobile devices. All the same, mobile learning can be a positive feature because classroom context alone cannot meet the students' needs in language learning (Surina & Kamaruzaman, 2009, as cited in Ehsan et al., 2014).

Mobile learning is now very much part of the educational technology and can be used in many different subjects. Mobile learning has also proved to be effective to enhance language skills (Azar & Nasiri, 2014) even in writing based on several past studies.

3. Mobile Assisted Language Learning (MALL)

Before going into the potentials of mobile learning in writing, this paper would like to cover the definition and features of MALL in education. In general, MALL means learning with the aid of handheld technologies like mobile phones, PDAs, iPods, iPads and other similar devices which could have an impact on language learning (Valarmathi, 2011; Suneetha, 2013; Azad Ali, 2014). Laptops are not advisable to use in a MALL context based on Viberg and Grönlund (2012) as only "lightweight" devices are being used. Even though mobile learning and MALL is commonly known as the same thing, Valarmathi (2011) noted that MALL is actually a subset of both Mobile learning (m-learning) and Computer Assisted Language Learning (CALL). This subject was also mentioned by Kukulska-Hulme and Shield (2008) as cited in Gholami and Azarmi (2012); they said that "MALL differs from CALL in its use of personal, portable devices that enable new ways of learning, emphasizing continuity or spontaneity of access and interaction across different contexts of use" (p. 4).

Mobile learning has several features that are useful in our digital society which benefits the students in many ways. Here are some of the features listed below:

1) Mobility

The size and weight of mobile technology differs from one another yet it can be moved and carried easily. The devices' portability enable learners to use it anytime and anywhere; even outside of classrooms and lecture halls like in cafes, hobby stores, cars and more (Sharples et al., 2005; Norazah et al., 2010).

2) Ubiquity

Mobile devices can be seen everywhere and it seems that everyone is using it, even in third world countries like Iraq and Iran. This is supported by Samsiah et al. (2013) who said that mobile devices are considered as an international phenomenon where even kids as young as 2 years old already know how to use it.

3) Wireless networking

Smart phones now combine the functions of phone, camera and multimedia wireless computer. This is one of the most significant features as it allows learners to have limitless internet connection without the help of any other device or wiring. This convergence allows new conceptions of lifelong learning (Sharples et al., 2005).

4) Interactivity

Mobile learning promotes interactivity as it allows learners to interact with each other without worrying of the distance through several different applications. Communication among learners is important as it is a form of education (Norazah et al., 2010).

5) Accessibility

The concept of accessibility can be used by teachers to enhance pedagogical activities in their lessons (Samsiah et al., 2013). Accessibility also let learners to revisit and reflect on acquired knowledge to form a new kind of knowledge (Norazah et al., 2010). Not only that, learners are able to direct their process of learning as they can access and create information by themselves (Suneetha, 2013). Besides that, accessibility enables learners to get information almost immediately to answer specific questions.

6) Privacy

Many individuals have their own mobile devices thus there is no need to share. The learners are able to access their data by themselves without feeling ashamed of their current level of learning. Additionally, learners will interact more with their device due to sense of privacy (Samsiah et al., 2013). This is supported by Zhang (2003) who said that the privacy of these devices will make learners feel safe and motivated.

Even among ESL learners in Malaysia, evidence show that tertiary students have a positive perception of MALL (Ehsan et al., 2014). Additionally, based on the definition and feature, MALL can be beneficial to learners when incorporated into writing activities. Although there might be some challenges in terms of size, durability and sustainability, the educator can make use of mobile devices by using the right pedagogy. This is true as mobile devices should be seen as an extension and not replacing the existing teaching and learning tools (Samsiah et al., 2013).

4. Pedagogical Advantage in Mobile Learning

When an educator uses any kind of technology ineffectively, students would learn in a passive way (Humes et al., 2010) which could bring a negative outcome. Therefore, Gilakjani et al. (2013) proposes that a pedagogy or theory framework is needed when using technology "to model their instruction with" (p. 49). Norazah et al. (2010) also agrees saying that technology-based media are required to use learning theories.

Mobile devices could also use the same technique to ensure learning is done successfully. Before going in pedagogical views that can be used in MALL, it useful to know the factors contributing to effective learning:

1) Learner centred: It is developed from students' own knowledge and skill; enabling them to think based on their previous knowledge.

2) Knowledge centred: The learning process comes from validated knowledge that was taught inventively by using different methods.

3) Assessment centred: The learners are assessed accordingly based on their ability and the assessment is able to offer diagnosis and further guidance.

4) Community centred: An effective learner will form a community to share knowledge and support those who are less able in their studies.

(National Research Council, 1999, as cited in Sharples et al., 2005)

These factors can be matched with many different kinds of learning approach that are used in MALL. According to Thomas (2007) as cited in Supyan et al. (2012), there are few types of learning that can be used as foundation when implementing mobile devices into learning. First is *behaviourism* as this approach offers feedback and reinforcement which can be facilitated by certain applications in the devices. Second is *constructivism* – this approach needs a lot of simulations, uses various media, and immersive environments. All of these can be provided through mobile devices. The third approach is *situated learning* where students learn in the environment that is relevant to the field of study. Due to mobile's portability feature, learners can search for answers or information while still in context. Lastly, *collaborative learning* can also be used as it promotes creating and sharing student and teacher resources. This fits mobile devices best as it is both accessible and ubiquitous; enabling learners to record and share instantly with each other.

Samsiah et al. (2013) also highlighted these approaches: 1) *Blended learning*—this is where students learn with

the educator face-to-face and online; which is perfect, for students can interact using their mobile devices or even carry out assignments after class session. 2) *Interactive learning*—this type of learning can also be supported by mobile devices as it can be used as an instrument for people to interact with. The engagement with the device can go on different levels enabling the learning process. 3) *Experiential learning*—due to the device's mobility, learners can find a relationship between school and other activities. This is a form of informal learning and it can be brought into the classroom for further learning. 4) *Problem-based learning*—this type of learning happens when the learners constantly study and work with the content to solve a problem given by the teacher. Learners can use mobile devices for their mobility, accessibility and wireless network to solve the problems.

However, among all types of pedagogy, based on the factors for effective learning, Sharples et al. (2005) mentioned that these findings complement the social-constructivist approach where learners construct their own knowledge through experience and by reflecting on their background knowledge (Gilbert, 2010). Sharples et al. (2005) continued saying that "it comprises not only a process of continual personal development and enrichment, but also the possibility of rapid and radical conceptual change." (p. 3). Dawood (2013) also thinks that mobile learning is best with constructivism as it promotes the full potential of technologies to enhance learning.

Another model of instruction which is gaining attention is flipped learning. According to Lage et al. (2000) as cited in Bishop and Verleger (2013), flipped classroom is "inverting the classroom where events that have traditionally taken place inside the classroom now takes place outside the classroom and vice versa." (p. 32). This approach is very much student-centred learning based on Cognitive and Social Constructivism. By moving the content delivery outside of the classroom time, students can use the time in class to discuss in smaller groups and engage in other meaningful activities (Bishop & Verleger, 2013).

Educators are able to vary their mobile activities based on these pedagogies mentioned so that they cover all types of learning styles in writing classes.

5. Issues Faced in Academic Writing

One of the greatest challenges for tertiary students is to face academic writing. This form of writing is usually serious in nature and students need to further explain their arguments to a specified discourse. Based on their course, tertiary students have to take academic writing as a subject in order to gain the requisite academic writing skills and better prepare for their dissertation paper. It is also taken for course assessment purposes or for the publication of academic papers (Lai, 2010).

Due to this matter, it is important to know what are the issues faced in this subject matter. Caldwell (2012) mentions a few problems faced by foreign students when writing academically. The first problem is the lack of knowledge students have about academic writing conventions. Their compositions are usually formatted incorrectly, contain grammatical and spelling errors, lack of punctuation, the sentences are not varied and as a whole, their writing is not organized properly and lack of clarity. However, Lai (2010) pointed out that lack of organization and clarity in academic writing is also a problem among native English students. This is because the difficulty in academic writing is not due to lack of language skills, but lack of proper training in logical thinking skills (Lai, 2010). Many fail to provide a clear focus in their writing because when reasoning in academic writing, it has to be more careful and comprehensive. Students need to know what the logical steps are before reaching the conclusion; which is why logical thinking is important for they need to connect the ideas correctly and form a coherent argument (Lai, 2010).

Caldwell (2012) also highlighted plagiarism as a major problem because students do not know how to cite properly and unknowingly commit plagiarism. Another problem faced is told by Lai (2010) where students have limitation when expressing ideas and thoughts in English. This is true especially for those whose English is of second language or foreign language. Students who excel orally in English are also a problem for they think that by excelling in conversational skills, they are able to produce good writing.

However, it is important to note that not all issues in academic writing come from the students. Caldwell (2012) explains that there is no one consistent method that is best to academic writing. Thus, teachers and educators need to develop their own curriculum and instruction to meet the needs of their students which could lead them to teach with an unclear objective. This in turn would cause students to not meet their needs in academic writing. Another issue when it comes to educators is how they do not have enough time to give valuable feedback or instruction to help students improve.

Since there is no one method in teaching academic writing, it is helpful to know the various approach used in writing classes to create more activities using mobile devices.

6. Approaches to Academic Writing Skills

Academic writing can be taught using normal approaches for writing classes by adapting its information. These approaches can be used as different tasks in academic writing to deepen students' understanding.

6.1 The Product Approach

According to Wahlstrom (2006), product approach is when teachers give students prewritten sentences or paragraphs where they will practice certain skills like changing past to present tense. This technique helps students to avoid error and after reaching certain proficiency, students are able to express ideas of their own (Catramado, 2004). This approach focuses on students' accuracy rather than their fluency in language when writing (Bachani, 2011).

6.2 The Free-Writing Approach

This approach focuses on students' writing quantity and not their quality (Bachani, 2011). Teachers will ask their students to write freely on a given topic without worrying about the grammar and spelling. Students' product gets little or no correction as teachers want the content and fluency to come first (Whalstrom, 2006). However, based on Catramado (2004), before students can write freely on a given topic, they have to go through four stages of writing: familiarization, controlled writing, guided writing and finally free writing.

6.3 The Paragraph-Pattern Approach

This approach focuses on organization. This approach is based on the principle that communication is organized and constructed depending on the culture the student's language belong to (Catramado, 2004; Whalstrom, 2006). Teachers will ask students to do exercises that teach students on how to organize larger chunks of writing into paragraph units (Bachani, 2011). Wahlstrom (2006) added that in order to write fluently, students need to analyze paragraphs in the target language and practice it.

6.4 The Grammar-Syntax-Organization Approach

This approach focuses on forms and message where students need to work with several aspects of writing simultaneously. In order to do so, students need to know grammar, syntax, vocabulary, and organization to convey the message they want to express. Bachani (2011) also says that students are trained to pay attention to organization while work on necessary grammar and syntax.

6.5 The Communicative Approach

This approach focuses on the purpose of writing and the audience. Teachers will ask students to focus on two questions: Why am I writing this and Who will read it? (Wahlstrom, 2006). Students also need to read their peers' work and based on instruction, they either respond, summarize or make comments as feedback (Catramado, 2004).

6.6 The Process Approach

The focus of this approach is on the process of writing. Teachers want their students to realise that what they write at first can still be improved and the content may change (Whalstrom, 2006). Bachani (2011) says that students are trained to generate ideas for writing, to think of a purpose, audience, and so on. However, since it is quite a long process, teachers use this approach depending on the time they have in class and the proficiency of the group of students they are working with (Catramado, 2004).

6.7 Genre Based Approach

This approach focuses on a certain genre which students need to use later on in their lives. The teaching is focused on the language and discourse features of a particular text and the context in which the text uses (Kamrul & Moniruzzaman, 2010). This approach is considered as an extension of the product-oriented approach because students have to study a wide variety of writing patterns (Tangpermpoon, 2008). However, Hasan and Akhand (2010) say that this approach pays less attention to the learner's expression which is a disadvantage to achieve creativity and critical thinking.

These approaches only touch the basics of writing and not academic writing itself. According to Ganobscik-Williams (2006), there are three main approaches which educators can use to tackle academic writing in higher education. Many tertiary students especially those in the first year, are not aware that the study skills they have developed from schools are not sufficient to meet their needs in university as secondary education only prepares them to excel in public examinations (Alston, 2008). It is also important to note that these three approaches are not mutually exclusive but instead, they sum up each other (Lea & Street, 1998, as cited in Zhang, 2011).

6.8 Skills Model

Ganobscik-Williams (2006) said that this model involves the teaching of writing skills where the student or the educator build a support system based on what the student is struggling with. This approach helps students to cope with the demands in a university context by teaching the 'study skills' they do not have and fix the problem by giving support outside of the subject discipline (Alston, 2008). Zhang (2011) says that "emphasis is given to atomized skills, surface language, grammar and spelling" (p. 41). However, Lea and Street (1998) as cited in Alston (2008) criticised this approach because it based only on the students' deficit and nothing else.

6.9 Socialisation Model

This approach assumes that students will develop knowledge and skills in their chosen discourse by being immersed in the culture of higher education (Ganobscik-Williams, 2006). This means that the model assumes that students will learn the needed writing skills by being uncalculated into the university culture (Alston, 2008). It also perceives that students can reproduce a particular academic discourse without any difficulty after much social interaction and participation (Zhang, 2011). This model is linked with the study skills model where the support settings given are built through inducting students into the language and techniques of academic writing (Alston, 2008). However, Ganobscik-Williams (2006), says that it cannot be assumed that students will simply understand the language of a complex discourse. This is true especially for students with weak English.

6.10 Academic Literacies Approach

Literacy is a term used when there is a sense of confidence and fluency when doing a specific task. Academic literacies refer to the same idea but within the university setting where communication is the key to success (Ganobscik-Williams, 2006). Lea and Street (2006) as cited in Zhang (2011), says that the academic literacies perspective sees writing as a social practice and is different within genre, context and culture. Zhang (2011) continued by saying that this model does not see students' deficit but instead emphasizes on students struggle to make sense of the variety and specificity of writing discourse. This means that learning takes place through writing and that writing is not the product of learning (Alston, 2008).

7. Discussion

In the 21st century, one of the main goals is to integrate technology into education successfully. There have been a lot of changes in educational technology and it is believed that mobile technologies can help the teaching-learning process. There are many features that motivate learners and educators to use mobile applications, especially due to its mobility, accessibility and privacy. These devices also promote autonomous learning. Not only that, MALL can create a more interactive classroom in an interesting and innovative way since the devices can provide instant and spontaneous information to bring up for discussion. Due to these factors and many others, mobile learning is gaining popularity everywhere, even in developing countries. When used to teach writing, MALL has many features that are useful in the classroom and gives immediacy for learners to write anytime—either inside or outside of the classroom. MALL also widens the opportunity for learners to interact with peers and educator via written text messages on different social applications.

There are a few issues concerning ESL students when it comes to academic writing besides limitation when expressing ideas and thoughts in English. Instead of using the conventional writing approaches alone to rectify the problems, mobile devices can also be integrated together for they have certain pedagogies that complement the writing approaches. For example, flipped learning can be used for students to study the genre of academic writing before class so that meaningful discussion and activities can be done during class time to better improve understanding of academic writing. When a teacher decides to use the Process approach to teach, the feedback session is perfect for mobile devices as it can also be used as a form of collaborative learning. MALL is also advantageous to use in writing classes because it is a form of constructivism. There are various kinds of simulations and media to create an immersive environment for students to practice writing with. This is helpful when integrated with the socialisation model as students can be immersed in the culture of higher education by sharing and knowing various kinds of information through their mobile devices and communicate them with their peers and educators.

There are few studies in MALL which involves writing skills. Alsaleem (2013) used electronic journaling to improve writing skills of 30 EFL undergraduate female students in Languages and Translation College at AlImam Mohammad Ibn Saud Islamic University in Saudi Arabia. They had to post reflective comments to their peer's work through WhatsApp. The quasi-experimental study found out that students reacted well with the discussions and enjoyed their dialogue journaling. The pre-test and post-test also showed that students' vocabulary and opinion (ideas) have improved. This study have indirectly used the Study Skills and Socialisation

Model where students form a small group support to give feedbacks on each other's weaknesses and immerse themselves into the academic culture by constantly correcting their own work.

Another study was carried out by Jai Shree et al. (2014) to see if trainee teachers from 27 teacher training institutes in Malaysia are ready to use mobile learning to improve their argumentative writing. This genre is very much alike to academic writing as it helps learners to become critical and reflective thinkers. The research mentioned a few problems faced by the respondents when writing an argumentative text like weak content, weak vocabulary, and weak organization. Jai Shree et al. (2014) also mentioned that learners cannot relate to their ideas in writing because they focus more on the product than the process of writing. They are also unable to grasp the study skills needed as they have less group-based activities. The study recommended that Argumentative writing skills can be developed through mobile learning as it helps learners to use it anywhere and anytime. This helps students to get more collaborative learning without worrying about place and time to improve their writing skills. Lee and Kim (2013) also used a mobile-based learning tool to improve writing skills of Korean students who are considered as EFL learners. The tools used are to check for grammatical mistakes and students think it is effective in improving their grammar at sentence level. This is like the Product Approach which can be used via mobile.

8. Conclusion

Based on the discussion above, the potential of mobile learning in teaching ESL academic writing is high. It is recommended for future research that each or several writing approaches are taught via mobile devices to see improvements in students' academic writing skills. Researchers and educators can use applications that have already existed or create new software for mobile users to further improve their academic writing skill. This paper implicates although there have been studies on MALL to improve writing skills, it is not yet used to improve academic writing skills. Moreover, it is possible to integrate mobile learning into academic writing by combining the different writing approaches so that students can acquire knowledge in various ways and learn how to write better in their academic writing.

References

Ali, M. A. (2014). The impact of mobiles on language learning on the part of English foreign language (EFL) university students. *Procedia-Social and Behavioral Sciences*, *136*, 104-108.

Alsaleem, B. I. A. (2013). The effect of "Whatsapp" electronic dialogue journaling on improving writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students. *Arab World English Journal*, *4*(3).

Alston, F. (2008). *Quality enhancement themes: The first year experience. Introducing scholarship skills: Academic writing.* Retrieved from http://dera.ioe.ac.uk/11596/1/introducing-scholarship-skills-academic-writing.pdf

Azar, A. S., & Nasiri, H. (2014). Learners' attitudes toward the effectiveness of mobile assisted language learning (mall) in L2 listening comprehension. *Procedia-Social and Behavioral Sciences*, *98*, 1836-1843.

Bachani, M. (2011). *Teaching writing*. Waymade College of Education. Retrieved from http://www.waymadeu.org/StudentSupport/Teaching%20Writing.pdf

Bishop, J. L., & Verleger, M. A. (2013, June). The flipped classroom: A survey of the research. *In ASEE National Conference Proceedings*, Atlanta, GA.

Burston, J. (2013). Mobile-assisted language learning: A selected annotated bibliography of implementation studies 1994-2012. *Language, Learning & Technology*, *17*(3), 157-225.

Caldwell, E. G. (2012). *The teaching of academic writing by practicing ESL teachers in an intensive English program* (Unpublished master's thesis). Hamline University, St. Paul, Minnesota.

Catramado, M. M. (2004). Integrating the six skills in every ESL/EFL class. *IPP Collection*, 157. Retrieved from http://digitalcollections.sit.edu/cgi/viewcontent.cgi?article=1145&context=ipp_collection

Dawood, S. A. H. (2013). Mobile learning: a good practice. *Procedia-Social and Behavioral Sciences*, *103*, 665-674.

Ehsan, S., Ismail, K., & Mustaffa, R. (2014). The acceptance of mobile assisted language learning (mall) among post graduate ESL students in UKM. *Procedia-Social and Behavioral Sciences*, *118*, 457-462.

Ganobscik-Williams, L. (2006). *Teaching academic writing in UK higher education*. Hampshire. Palgrave MacMillan.

Gholami, J., & Azarmi, G. (2012). An introduction to mobile assisted language learning. *International Journal of Managment, IT and Engineering*, *2*(8), 1-9.

Gilakjani, A. P., Leong, L. M., & Ismail, H. N. (2013). Teachers' use of technology and constructivism. *International Journal of Modern Education and Computer Science (IJMECS)*, *5*(4), 49.

Gilbert, J. (2010). *Constructivism within the second language classroom*. Boison State University. Retrieved from http://edtech2.boisestate.edu/gilbertj/504/synthesis.pdf

Grace, A., Kemp, N., Martin, F. H., & Parrila, R. (2013). *Undergraduates' attitudes to text messaging language use and intrusions of textisms into formal writing*. New Media & Society.

Guerrero, L. A., Ochoa, S., & Collazos, C. (2010). A mobile learning tool for improving grammar skills. *Procedia-Social and Behavioral Sciences*, *2*(2), 1735-1739.

Gündüz, N. (2005). Computer assisted language learning. *Journal of Language and Linguistic Studies*, *1*(2), 193-214.

Hasan, M. K., & Akhand, M. M. (2010). Approaches to writing in EFL/ESL context: Balancing product and process in writing class at tertiary level. *Journal of NELTA*, *15*(1-2), 77-88.

Humes, J., & Raisner, J. (2010). *Constructivism in educational technology*. Retrieved from http://scholar.google.com.my/scholar?q=Constructivism+in+Educational+Technology&btnG=&hl=en&as_s dt=0%2C5&sciodt=0%2C5&cites=2802796047571906333&scipsc=

Lai, W. L. (2010). A new approach to teaching academic writing: How philosophers can contribute to educating young scientists. *Journal of the Graduate School of Letters*, *5*, 81-87.

Lee, K. J., & Kim, J. E. (2013). A mobile-based learning tool to improve writing skills of EFL learners. *Procedia-Social and Behavioral Sciences*, *106*, 112-119.

Mastura, N. M. N., Nor, M. M., & Posiah, M. I. (2012). M-learning in Malaysia: challenges and strategies. *Procedia-Social and Behavioral Sciences*, *67*, 393-401.

Melor, M. Y., Nordin, N., Salehi, H., Embi, M. A., & Salehi, Z. (2013). The use of information and communication technology (ICT) in teaching ESL writing skills. *English Language Teaching*, *6*(7).

Melor, M. Y., Nordin, N., Salehi, H., Sun, C. H., & Embi, M. A. (2013). Pros and cons of using ICT in teaching ESL reading and writing. *International Education Studies*, *6*(7).

Nomass, B. B. (2013). The impact of using technologies in teaching English as a second language. *English Language and Literature Studies*, *3*(1), 111-116.

Norazah, M. N., Embi, M. A., & Melor, M. Y. (2010). Mobile learning framework for lifelong learning. *Procedia-Social and Behavioral Sciences*, *7*, 130-138.

Norazah, M. N., Hamzah, M. I., Melor, M. Y., & Embi, M. A. (2010). The mobile learning environment for the in-service school administrators. *Procedia-Social and Behavioral Sciences*, *7*, 671-679.

Rosen, L. D., Chang, J., Erwin, L., Carrier, L. M., & Cheever, N. A. (2010). The relationship between "textisms" and formal and informal writing among young adults. *Communication Research*, *37*(3), 420-440.

Samsiah, B., & Azidah, A. Z. (2013). Adoption and application of mobile learning in the education industry. *Procedia-Social and Behavioral Sciences*, *90*, 720-729.

Sharples, M., Taylor, J., & Vavoula, G. (2005). Towards a theory of mobile learning. *Proceedings of mLearn*, *1*(1), 1-9.

Shree, B. J., Parilah, M. S., Nor, P. S., Rosseni, D., Rashidah, R., & Juhaida, A. A. (2014). User needs analysis in learning argumentative writing via mobile platform. *Procedia-Social and Behavioral Sciences*, *118*, 198-205.

Suneetha, Y. (2013). MALL (mobile assisted language learning): A paradise for English language learners. *International Journal of English Language & Translation Studies*, *1*(2), 91-99.

Supyan, H., Manap, M. R., Amir, Z., & Krish, P. (2012). Mobile learning readiness among Malaysian students at higher learning institutes. *Asian Social Science*, *8*(12), 276.

Tangpermpoon, T. (2008). *Integrated approaches to improve students writing skills for English major students*. Retrieved from http://www.journal.au.edu/abac_journal/2008/may08/01(1-9)_article01.pdf

Traxler, J. (2007). Defining, discussing and evaluating mobile learning: The moving finger writes and having

writ.... *The International Review of Research in Open and Distance Learning*, *8*(2).

Valarmathi, K. E. (2011). Mobile assisted language learning. *Journal of Technology for ELT*, *2*(2), 1-8.

Valk, J. H., Rashid, A. T., & Elder, L. (2010). Using mobile phones to improve educational outcomes: An analysis of evidence from Asia. *The International Review of Research in Open and Distance Learning*, *11*(1), 117-140.

Viberg, O., & Grönlund, Å. (2012). Mobile assisted language learning: A literature review. *In mLearn*, 9-16.

Wahlström, A. (2007). *Teaching Writing in Upper Secondary School*. Ĵonkőping University. Retrieved from http://www.diva-portal.org/smash/get/diva2:4421/FULLTEXT01.pdf

Ybarra, R., & Green, T. (2003). Using technology to help ESL/EFL students develop language skills. *The Internet TESL Journal*, *9*(3).

Zhang, D. (2003). Delivery of personalized and adaptive content to mobile devices: A framework and enabling technology. *Communications of the Association for Information Systems*, *12*, 183-202.

Zhang, Z. (2011). A Nested Model of Academic Writing Approaches: Chinese International Graduate Students Views of English Academic Writing. *Language and Literacy*, *13*(1), 39-59.

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