THE IMPLEMENTATION OF ICT-INTEGRATED ELT ACROSS CURRICULUM 2013 IN SENIOR HIGH SCHOOLS IN PALEMBANG

Rahma Dianti[1] Yunani Atmanegara[2]

[1] [2]Tridinanti University

[1]rahma_dianti@univ-tridinanti.ac.id

[2]yunaniatmanegara@univ-tridinanti.ac.id

Abstract

Infusing technology into English Language Teaching can contribute positive impacts toward students' learning if it is integrated in such a way. Curriculum 2013 proposes the integration of Information Communication Technology into instructional practices. This study investigatedwhether or not the teachers of English integrated ICT into their ELT; described about how ICT was implemented in ELT; and explored the obstacles faced by the teachers of English in implementing ICT. This study surveyed ten state Senior High Schools in Palembang. Twelve teachers of English and 200eleventh grade students participated in this study chosen by using purposive samplingtechnique. In gathering the data, questionnairewas administered. The results showed that most English teachers and students integrated ICT in their classroom. ICT was implemented as instructional tools to facilitate English learning in the classroom. However, they still faced some obstacles in integrating ICT into ELT. School supports became the main factor hindering ICT implementation at schools.

Keywords: ICT implementation, ELT, Curriculum 2013

Introduction

In this digital age, the innovations of Information and Communication Technology (ICT) have penetrated many aspects of human life. ICT has been part of human's life for the last few decades. Recently, the way people access information and communicate with others has shifted to technology oriented. They can get informationand socialize with others easily in very short time anytime and anywhere. Furthermore, the advances of ICT have also evolved educational system in developed and developing countries around the world. Nowadays, ICT is broadly used in educational field. This advance has brought paradigm shifts in teaching practices. For example, it has shifted the way the teachers and students interact during teaching and learning process. Formerly, the learning process was a teacher-centered learning. Nowadays, by the integration of ICT in classrooms, the learning process has changed into a student-centered learning.

It is believed that ICT integration can raise the quality of education. Education in this digital age serves more challenging tasks to do. The World Bank Group (2003) as well as Partnership for 21st Century Skills (2003) suggests that learners need to acquire critical thinking, effective communication, team work, continuous learning, and use of technology skills in order to help the global knowledge economy and be productive world citizens.In line with a study conducted by Aydin (2007), the cultivation of 21st century skills can be pursued in classroom activities by applying technology. In addition, many studies have revealed that the implementation of ICT gives positive impacts in education.Ziden, Ismail, Spian, and Kumutha (2011) found that the integration of ICT could improve students' academic achievement. Furthermore, ICT is considered important for improving the effectiveness of teaching and learning in schools (Lin, Wang & Lin, 2012). In other words, the infusion of technology

affects teaching variation that can be adopted and adapted by using ICT when ICT is integrated in such a way.

In language teaching context, technology is not a new thing. Technology has been used as medium for instructions for decades. Employing technology into English language classroom refers to exploring the use of computers and technology as pedagogical tools to aid the instruction of English (Erben, et.al., 2009). The use of conventional technology devices, such as language laboratory, radio, tape recorders, video recorders, and television, have been incorporated as teaching aids in language teaching since 1960s -1970s. Then, the innovations of modern technology offer both teachers and students some alternative tools and applications that can be employed in teaching and learning (Yunus, Lubis& Lin, 2009).

As response to that condition, education system in Indonesia has been changing. The changing of a curriculum inevitably happens from time to time in order to accommodate human's life changing and needs. Indonesia is recently implementing a new curriculum, which is called as *Curriculum 2013* (K-13). The curriculum revision is influenced by some factors.The advance of technology is one of the factors which initiate the changing curriculum from KTSP 2006 into Curriculum 2013. In Curriculum 2013, Indonesian government considers proposing ICT integration into pedagogical practice. Consequently, it has changed the role and position of ICT subject at school. ICT has become an obligatory competence for all subjects, not only for the teachers but also for the learners. It means that ICT plays a vital role as learning tools to aid the teachers delivering their learning materials. Moreover, utilizing ICT into their teaching practice enables the learners to

be active in seeking, processing, constructing, and using and managing knowledge. It means that the learners will be the main agent in finding knowledge and teachers are playing a role only as learning facilitator.

According to Kementerian Pendidikan&Kebudayaan (2014), there are five pillars of learning process that should be carried out in this curriculum; observing, questioning, collecting information,associating, and communicating or discussing. It is in line with constructivism paradigm which believes that knowledge can be acquired by the learners themselves individually and socially. Thus, it is necessary for teachers to create learning atmosphere which supports the learners in knowledge acquisition.This consideration forces the teachers to be able to utilize ICT. However, due to the integration of ICT in ELT, there are some barriers or limitation faced by the educators. The barriers in ICT infusion could be related to teacher and schools. Salehi and Salehi (2012) found that insufficient technical supports at schools and limited internet and ICT access prevented the teachers to infuse technology into their classrooms.Moreover, teachers' attitude toward technology, teachers' reluctance of changes, teachers' lack of knowledge, lack of technical skills, and lack of confidence in using technology are the barriers from the teachers' level (Al Mulhim, 2014).

In line with the explanation above, this study highlighted in finding out whether or not the teachers of English and the students integrated ICT into English language teaching and learning process since Curriculum 2013 has been implemented; describing about how ICT was implemented in ELT; and exploring the obstacles faced by the teachersof English in implementing ICT-integrated ELT in their classrooms.

ICT Roles in Education

ICT is used in many aspects of human life including in education. ICT in education refers to the application of technology tools or devices for teaching or educational purposes or more than that (Cavanaugh, 2002).It has a crucial role in education especially in language teaching. Desai (2010) states ICT transforms teacher-centred learning to competency based learning. In other words, ICT has changed the way of learning. Students can enhance their learning experiences when teachers act as virtual guides for students who use electronic media in the classroom teaching. This condition helps students to think independently and communicate creatively. Sharndama (2013) also adds that ICT has transformed classroom communication methods and modified instruction strategies. Teaching and learning becomes interactive and collaborative by the use of ICT instead of the traditional teacher- talking and students listening approach. In a nutshell, ICT can improve the quality of education. Furthermore, Ziden, Ismail, Spian, and Kumutha (2011) found that the integration of ICT could improve students' academic achievement.ICT is considered important for improving the effectiveness of teaching and learning in schools (Lin, Wang & Lin, 2012)

Fu (2013) confirms some benefits of using ICT in education: (1) assist students in accessing digital information efficiently and effectively; (2) support student-centeredand self-directed learning; (3) produce a creative learning environment; (4) promote collaborative learning in a distance-learning environment; (5) offer more opportunities to develop critical (higher-order) thinking skills; (6) improve teaching and learning quality; and (8) support teaching by facilitating access to course content

ICT Implementation in ELT

According to Erben, et. al. (2009), before the teachers use technology in the classroom, they need to consider some principles of technology use in educational settings. They are (1) teachers have to know whether their learners are familiar with technology or not, (2) teachers have to use purposeful and contextualized IT materials, (3) teachers should promote learner autonomy through the infusion of technology by asking their students to work collaboratively in pairs or small groups, (4) teachers have to create communicatively accurate interaction and communicatively effective interactions in classroom, and (5) teachers need to be aware of challenges of technology use in classroom.

The involvement of ICT in English instructions is classified into four types suggested by UNESCO (2014, p. 23) as follows: (1) **Radio-assisted instruction (RAI)** includes both radio broadcast education and interactive radio instruction. Radio broadcast education entails an audio lecture or lesson, with printed material for pupils to follow the lecture. Interactive radio instruction (IRI) turns a typically one-way technology into a tool for active learning inside and outside the classroom. It requires that pupils react to questions and exercises through verbal responses to radio programme contributors, group work, and physical and intellectual activities while the programme is on air; (2) **Television-assisted instruction (TAI)** is similar to radio broadcast education, with the additional benefit of video. It helps to bring abstract concepts to life through clips, animations, simulations, visual effects and dramatization. It can also connect a classroom to the world but shares the same rigid scheduling and lack of interactivity as radio broadcast education; (3) **Computer-assisted**

instruction (CAI) is an interactive learning method in which a computer is used by teachers and/or pupils to present instructional material, to perform tasks for learning and to help in selecting and accessing additional pedagogical material; and (4) **Internet-assisted instruction (IAI)** refers to an interactive learning method using content from the World Wide Web for pedagogical purposes.

Methodology
Research Design and Procedure
        This study used a survey design since it focused on investigating the implementation of ICT-based ELT in ten senior high schools in Palembang. There were some procedures implemented in conducting this design, included planning the research, implementing the research, and reporting the results of research. The research procedure is presented in Figure 1.
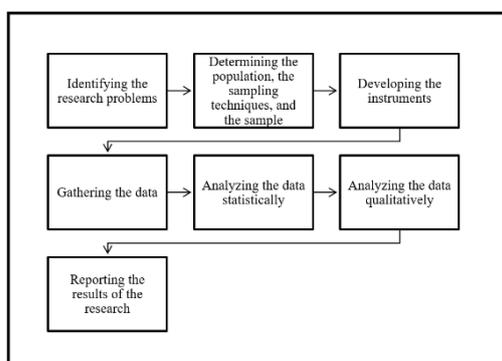

Figure 1. Research Procedures

Population and Sample
        This study was conducted in ten public Senior High Schools located in Palembang. They were SMA Negeri 2, SMA Negeri 6, SMA Negeri 8, SMA Negeri 9, SMA Negeri 11, SMA Negeri 13, SMA Negeri 14, SMA Negeri 17, SMA Negeri 18, and SMA Negeri 19. Those schools have implemented Curriculum 2013 for two years or more.
        The sample of this study was12 teachers of English and 200 eleventh graders in those schools chosen by

purposive sampling technique.There were some considerations for choosing the sample.Those were: (1) the schools have implemented Curriculum 2013 for two years or more; (2) the teachers who were teaching English for eleventh grade; and (3) the students who were in the eleventh grade.

Instrumentation
        In gathering the data, questionnaire was administered to the sample. Questionnaire was used to find out how the implementation of ICT-integrated English Language Teaching (ELT) on the basis of Curriculum 2013 in ten state senior high schools in Palembang. The questionnaire was distributed to the teachers and the students. Since the study intended to investigate the implementation of ICT in ELT classroom, the teacher's questionnaire measured the teacher's experience in using ICT, school support in ICT integration, and obstacles in ICT integration. In addition, student's questionnaire measured the use of ICT in school. Before gathering the data, the questionnaires were validated by two experts.

Data Analysis
        The data obtained was firstly analyzed by using percentage analysis.The percentage results would portray the descriptive data. After the data had been analyzed statistically, the data was then interpreted to describe the trends or facts dealing with research questions addressed by this survey study.

Result and Discussion
The Results of Teacher's Questionnaire of ICT Implementation
        From the data analysis, it was found out most of the teachers (92%) have implemented ICT in their English classroom. They used ICT tools as teaching aids to facilitate the teaching

and learning process.Majority of the teachers (75%) used computer and projector in their teaching practice. The other tools used by the teachers were presentation tools/Ms. PowerPoint (67%), internet (58%), email and personal gadget (50%), social networking sites (42%), web browser and wi-fi (33%), intranet/LAN (17%), and web storage (8%).The summary of ICT tools used by the teachers in their ELT classrooms is presented in Table 1.

Table 1. ICT Tools Used in ELT

ICT tools	Number (%)
Intranet (LAN)	2 (17%)
Internet	7 (58%)
Wi-fi	4 (33%)
Personal gadgets (smartphone/ iPad/tablet)	6 (50%)
Computer / Laptop	9 (75%)
Projector	9 (75%)
Presentation tools (Ms. PowerPoint, Prezi)	8 (67%)
Email	6 (50%)
Web Storage (Dropbox, Google Drive)	1 (8%)
Social Networking Sites (Facebook, Twitter, WhatsApp)	5 (42%)
Web Browser (Google, Yahoo, Bing)	4 (33%)

Majority of the teachers integrated ICT into their class teaching ease them in conductingthe teaching and learning process. Major rationale (50%) the teachers used ICT was to support and mediate their teaching and learning process. There was 33% of the teachers used ICT to get and produce teaching and learning material. The teachers who integrated ICT to help them prepare and plan the lesson, to create effective learning atmosphere were 25%. The other 17% of the teachers used ICT to enable them promote students' learning autonomy.The summary of teacher's rationales of integrating ICT is presented in Table 2.

Table 2. Teacher's Rationales of Using ICT

Rationales of Using ICT	Number (%)
To help me prepare and plan my lesson	3 (25%)
To get and produce teaching and learning materials	4 (33%)
To support and mediate teaching and learning process	6 (50%)
To create effective learning atmosphere	3 (25%)
To promote students' learning autonomy	2 (17%)

Furthermore, it was found out that most of the teachers (58.4%) used ICT tools for preparing their teaching, during the teaching process, and for evaluating the teaching process. It means that those teachers have integrated ICT into their class for all teaching stages. Only one teacher (8.3%) who did not apply the use of ICT in his class teaching.

Table 3. ICT Integration in ELT

Teaching Stage	Number (%)
Teaching preparation	1 (8.3%)
Teaching and learning process	3 (25%)
Teaching evaluation	0 (0%)
All stages	7 (58.4%)
None of them	1 (8,3%)

Next, ICT was explored by the teachers to do some activities in the teaching and learning process. Based on the data gathered, it was revealed that the most common activity done by the teachers was using presentation application, *Ms. PowerPoint*, to deliver learning material to their students. Moreover, the teachers used internet to browse learning material when they prepared the lesson, downloaded teaching material from learning platform, used online chat media to communicate the lesson with their students, used email to send learning material, and posted students' tasks in their personal accounts. However, the teachers seldom exposed the use of ICT

to create online forum, use email to receive students' tasks, download or upload learning material and tasks on school website, and browse or search learning sources. The summary of instructional activities done by using ICT is presented in Figure 2.
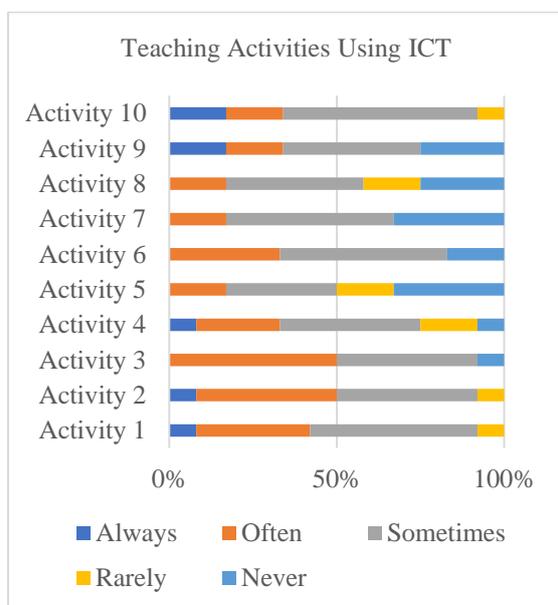

Figure 2. Teaching Activities Using ICT

Obstacles

Based on the data obtained, it showed that the implementation of ICT was not optimal since there were some obstacles hindering the ICT implementation at schools. Based on the data analysis, it was revealed that school facilities became the main obstacle in implementing ICT-integrated ELT in the schools. Most of the schools had insufficient units of computer with internet connection(75%). Internet connection (67%) was also the problems in integrating ICT into classroom teaching. Schools were not facilitated with enough internet bandwidth or speed even students could not access wi-fi since the schools did not have any internet connection. Besides school facilities, the teachers also became a factor that caused the ICT implementation was not optimal yet. 50% of the English teacherslacked

adequate technical skills to integrate ICT into their class teaching and 75% of the teachers were reluctant to use ICT in their teaching practice. Another obstacle of ICT implementation was 83% of the respondents thought that using ICT in their classroom was not the goal in their schools. The summary of ICT implementation obstacles is presented in Table 4.

Table 4. Obstacles of Using ICT in ELT

Conditions	Yes	No
Insufficient number of computers	67	33
Insufficient number of internet-connected computers	75	25
Insufficient Internet bandwidth or speed	67	33
School computers are out of date and /or need to repair	42	58
Teachers lack adequate technical skills	50	50
Insufficient technical support for teachers	58	42
Lack of pedagogical models on how to use ICT for learning	50	50
Too difficult to integrate ICT into the curriculum	17	83
Most teachers are not in favour of the use of ICT at school	75	25
Using ICT in teaching and learning not being a goal in our school	83	17

The Results of Student's Questionnaire of ICT Implementation at School

From the data gathered, it was found out that ICT was also used by the students at schools. Most of students used computers and internet connection during the learning process. The percentage of ICT usage by the students significantly increased in the last three months. For the last three months, 67% of the students used computer and 82% used internet connection. It showed that ICT was also used not only by the teachers as the teaching aid but also used by the students to aid their learning process. The summary of percentage of

student's experience using ICT is presented in Table 5.

Table 5. Student's Experience Using ICT at School

Experience	Yes	No
Use computer or laptop		
a. In the last 3 months	133 (67%)	67 (33%)
b. In the last 12 months	111 (55%)	89 (45%)
Use internet connection		
a. In the last 3 months	164 (82%)	36 (18%)
b. In the last 12 months	131 (66%)	69 (34%)

Dealing with ICT tools explored by the students in the classroom, it was revealed that the students mostly used their own mobile phones (82%). They also used computer with internet connection (27%). They never accessed or used digital reader (59%). The summary of ICT usage by the students is presented in Figure 3.
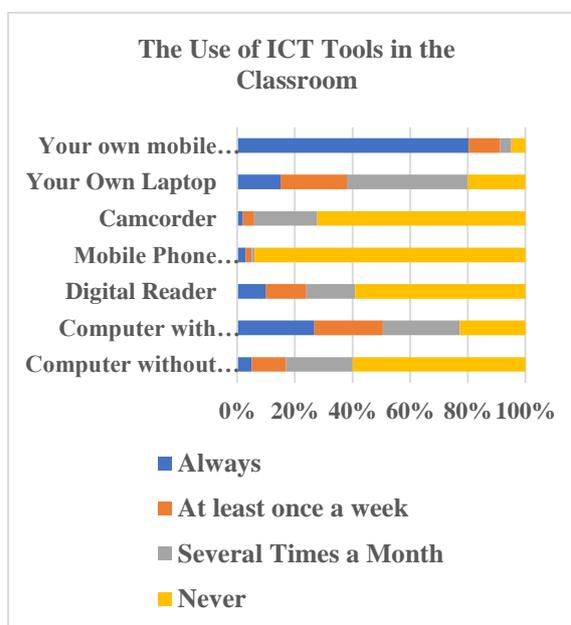

Figure 3. ICT Tools Used by the Students

Dealing with activities done with ICT tools, it was revealed that ICT was significantly explored by the students to do the following things: (1) online chat for school work (66%); (2) browse or search information (66%); and (3) use computer when working in groups (38.5%). The summary of ICT-integrated learning activities done by the students is presented in Figure 4.
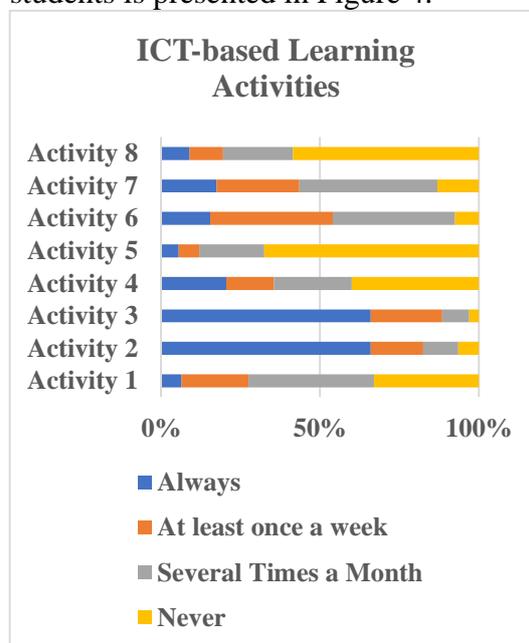

Figure 4. ICT-based Learning Activities by the students.

Discussion

Based on the results found, there were some interpretations could be made. First, ICT has been implemented in those ten senior high schools. most of the teachers of English as well as the students have employed ICT in English language teaching and learning. This condition was in line with Curriculum 2013 that was not only a subject matter to be learnt by the students in secondary level of education, but also it should be used to mediate the instructional practices. Referring to the ICT-integrated ELT, mostly ICT tools were used as teaching media that eased the process of teaching and learning English. Erben, et. al., (2009) affirm that ICT tools, such as computer and technology, can be utilized as pedagogical tools that aid the English instruction.

Second, ICT was mostly used to support the teachers and the students to hold the process of teaching and learning optimally. It was revealed that the teachers did not use ICT for preparing the teaching and learning material only, but also they tended to use ICT to support them in delivering and evaluating the process of teaching and learning. While students explored the use of ICT to support them in completing school tasks and finding out more information dealing with the learning material.

Third, judging from what ICT tools used by the teachers and the way they integrated it into their class teaching, the teachers implementedcomputer assisted instruction (CAI) and internet assisted instruction (IAI) since most of teachers utilized computer and internet as the main tools when they integrated ICT into their classes. This condition was in line with UNESCO (2014)who affirms that English instructions which involve the use of ICT can be categorized as radio assisted instruction (RAI), television assisted instruction (TAI), computer assisted instruction (CAI), and Internet assisted instruction (IAI).

Finally, there were some obstacles that caused ICT was not optimally implemented. Those factors seemed to hinder the utilization of ICT in teaching and learning practice. The first barrier was school facilities. Schools had insufficient computer units connected with internet, others did not have any projectors, others did not have enough internet bandwidth speed. In line with what had been found by Salehi and Salehi (2012) that insufficient technical supports at schools and limited internet and ICT access prevented the teachers to infuse technology into their classrooms. It was revealed that some schools were not ready yet to implement ICT in the teaching and learning process. The

second barrier was teacher's attitude toward ICT implementation. Most of the teachers were reluctant to infuse the technology to their ELT class since they lacked both of background knowledge and technical skills in incorporating technology into their classes. As Al Mulhim (2014) argues that the teachers are also the factor that prevents the ICT implementation at schools.

Conclusions

Referring to the results and discussions, some conclusions could be drawn. First, most of the teachers of English in ten public senior high schools in Palembang have employed ICT tools to aid the process of teaching and learning English as proposed by Indonesian's government in Curriculum 2013. Second, they used ICT tools to mediate the English instruction. They utilizedsome ICT tools to help them prepare the instructional material, deliver the process of teaching and learning in and out of the classroom, and evaluate the results of teaching and learning practice. Third, the implementation of ICT-integrated ELT has not been fully optimal in some schools since there were still some obstacles that hindered the ICT implementation. Insufficient school facilities and the teachers who were reluctant to integrate ICT into their class teaching became the main factors influencing the condition. It could be said that even though most of schools support the government's proposition to integrate ICT in the teaching practice, they are not ready enough to implement ICT in the instructional practices optimally.

References

Al Mulhim, E. (2014). The barriers to the use of ICT in teaching in Saudi Arabia: A review of literature. *Universal Journal ofEducational Research*, *2*(6), pp. 483-497.

Aydin, C. H. (2007). Promoting 21st century skills through integration of ICT in the classroom. Retrieved from www.aect.org/pdf/proceedings07/2007/07_2.pdf.

Cavanaugh, C. (2002). Faculty Development in Educational Technology. In D. Willis, J. Price & N. Davis (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2002* (pp. 621-622). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).Erben, T., Ban, R., & Castaneda, M. (2009). *Teaching English language learners technology*. New York: Routledge.

Desai, S. (2010). Role of information communication technologies in education.*Proceedings of the 4th National Conference*; INDIACom-2010 Computing for Nation Development.

Erben, T., Ban, R., & Castaneda, M. (2009). *Teaching English language learners technology*. New York: Routledge.

Fu, J.S. (2013). ICT in education: A critical literature review and its implications.*International Journal of Education and Development using Information and Communication Technology (IJEDICT), 9*(1),pp.112-125.

Kementerian Pendidikan &Kebudayaan. (2014). *Konsep dan implementasi Kurikulum 2013*. Retrieved from https://kemdikbud.go.id/kemdibud/dokumen/Paparan/Paparan%20Wamendik.pdf

Lin, J., Wang, P. Y., & Lin, I. (2012). Pedagogy technology: A two-dimensional model for teachers' ICT integration. *British Journal of Educational Technology*, *43*(1), pp. 97-108.

Partnership for 21st Century Skills. (2003). Learning for the 21st century. Washington, DC: Partnership for 21st Century Skills. Retrieved on October 12, 2007 from www.21stcenturyskills.org/downloads/P21_Report.pdf.

Salehi, H., & Salehi, Z. (2012). Integration of ICT in language teaching: Challenge and barriers.*Proceedings of the 3rdInternational Conference e-Education, e-Business, e-Management, and e-Learning (EC4E, 2012), IPEDR, 27, pp. 215-219

Sharndama, E. C. (2013). Application of ICTs in teaching and learning English (ELT) in large classes. *Journal of Arts and Humanities, 2*(6). 34-39.

The World Bank Group (2003). *Lifelong learning in the global knowledge economy: Challenges for developing countries*. World Bank: Washington, DC.

UNESCO. (2014). *Information and communication technology in education in Asia: A comparative analysis of ICT integration and e-readiness in schools across Asia.* Canada: UNESCO Institute for Statistics.

Yunus, M.M., Lubis, M., & Lin, C. (2009). Language learning via ICT: Uses, challenges, and issues. *WSEAS Transactions on Information Science and Applications*, *6*(9), pp.1453-1467.

Ziden, A.A., Ismail, I., Spian, R., &Kumutha, K. (2011). The effects of ICT use in teaching and learning on students' achievements in science subject in a primary school in Malaysia. *Malaysia Journal of Distance Education*, *13*(2), pp. 19-32