Research Article
Future of ICT as a Pedagogical Tool in ESL Teaching and Learning

[1]Melor Md Yunus, [1]Norazah Nordin, [1,2]Hadi Salehi, [1]Mohamed Amin Embi and [2]Zeinab Salehi
[1]Faculty of Education, Universiti Kebangsaan Malaysia (UKM), 43600 Bangi, Malaysia
[2]Faculty of Literature and Humanities, Najafabad Branch, Islamic Azad University,
Najafabad, Isfahan, Iran

Abstract: The integration of Information and Communication Technology (ICT) in education has provided more variation in the process of teaching and learning. The function of ICT in systematic teaching and learning in English as a Second Language (ESL) classroom is to achieve the objectives of language teaching and learning. The aim of this study is twofold: (i) to investigate how secondary school English teachers perceive the future of ICT as a pedagogical tool and (ii) to discover what they think the impact of ICT will be on the future of the teachers. This study is a qualitative research in nature because a semi-structured interview was used to examine the teachers' perceptions of the future of ICT as a pedagogical tool and the impact of ICT on the future of the teachers. Overall, a total of 25 secondary school English teachers were interviewed. The teachers were pragmatically and purposively selected from four different areas of Malaysia, 8 teachers from Tawau, 7 teachers from Alor Setar, 6 teachers from Tuanku Jaafar and 4 teachers from Kuala Lumpur, respectively. The interviewees were selected based on three criteria which are the willingness to participate and cooperate, capability of giving effective responses to the interview questions and lastly having teaching experience of at least 1 year. The findings of the study showed that ICT has the potential to give great impact on the future of teachers in terms of the role of the teacher, the methods of instruction and the methods of assessment. It was also concluded that, in the future, the role of the teacher will be changed from the sole knowledge provider to a facilitator or moderator; the methods of instruction will be changed from conventional discussions in the classroom to the use of online forums with the students; and the medium of assessment will be changed from printed ones to e-assessment.

Keywords: English as a Second Language (ESL), Information and Communication Technology (ICT), learning, reading, teaching, writing

INTRODUCTION

Information and Communication Technology (ICT) is a generic term referring to technologies which are being used for collecting, storing, editing and passing on information in various forms (Salehi and Salehi, 2011). As a learning tool in education, ICT is being integrated in different fields and instructions. ICT is being used extensively not only as part of national curriculum requirements but also as a management, assessment diagnostic and statistic tool (Salehi and Salehi, 2012). Interactive computer applications and simulation exercise can be used to supplement the traditional study preparation (Melor, 2007). Various researches have been done to investigate the effectiveness of information technologies as an educational tool (e.g., Considine et al., 2009; Yunus and Salehi, 2012; Yunus et al., 2012). ICT has the potential to play an important role in making English in schools more relevant, interesting and motivating for students. Therefore, consideration needs to be given to

develop IT-based English activities in classrooms, which enable students to learn and experience English at the same time.

Generally, one of the educators' responsibilities is to prepare students for the future. The best way is not only to teach the students to use technology, but also to teach them by technology (Nordin et al., 2010a). To provide an optimal learning condition, researchers of learning technology widely explore issues for enhancing the potential of learning, such as readiness level, motivation, sequencing and pacing, feedback, reinforcement and social interaction (Lewis, 2003; Nordin et al., 2010b). In fact, one of the roles of ICT in English as a Second/Foreign Language (ESL/EFL) context is to provide the tools to facilitate students' development within the existing English curriculum. In other words, the focus is on the development of knowledge and skills traditionally regarded as important within this subject area, but this is reframed within a digital curriculum. This study aims to investigate how English teachers perceive the future of

ICT as a pedagogical tool and discover what they think the impact of ICT will be on the future of the English teachers.

LITERATURE REVIEW

The future of ICT as a pedagogical tool: ICT, given the advantages it offers, can be perceived as an important and useful pedagogical tool in the field of education. It is vital for the teachers in schools to encourage and guide the students to use ICT tools and provide them with some suggestions of websites available which are useful for enhancing students' language development (Yunus *et al*., 2009, 2010). Many studies have indicated that the use of ICT in ESL/EFL classrooms can enhance language learning in terms of promoting authentic text-based language communication in electronic environments and increasing students' motivation in producing texts. For example, teachers can use weblogs to create a communicative learning environment in which students write collaboratively and edit their peers' writing (Tu *et al*., 2007).

Moreover, the use of e-books can also be considered in the reading classrooms, now and in the future. Many e-books employ multimodal features-such as video, audio and hyperlinks-as well as interactive tools. Such tools invite readers to physically interact with the text through inserting, deleting, or replacing text; marking passages by highlighting, underlining, or crossing out words; adding comments by inserting notes, attaching files, or recording audio comments; and manipulating the page format, text size and screen layout. Search features allow the users to locate specific words or phrases within the text or access a particular page. Although research on the use of this medium is in its infancy, the results appear promising in supporting electronic texts as a means to foster literacy development and, in particular, reading comprehension (Larson, 2008).

Furthermore, the Electronic Talking Books (ETBs), which are texts on CD-ROM or the Internet, feature not only the written word but also multimedia elements such as animations, narrations, music and video. Research indicates that ETBs can encourage and help children learn to read. In terms of literacy education, there is a growing body of research showing that ETBs can help children learn to read through support features offered, such as narrations, feedback and sound effects (Oakley and Jay, 2008). A research conducted by Oakley and Jay (2008) found that ETBs can be a useful teaching tool to encourage students to read, besides assisting them to do so at home. Some of the responses from the participants of the research include:

"I'm not into reading but I'd like them (the ETBs) to be in the library cause that would help me learn

to read", "If you are stuck you can hear it again" and "It's quite good. What I did, I listened first then tried to read it myself."

To reiterate, the current ICTs are fundamentally changing the ways in which youth today read, write and communicate. In this twenty-first century, learners' writing uses the mediums of Instant Messaging (IM), text messaging (or texting), Twitter and e-mail, as well as shared electronic documents and postings on blogs and social networking sites. Another example of the use of short messages is to adopt the online application Twitter as part of classroom assignments. With this approach, students are required to make a minimum number of tweets each week, which may or may not be related to a specific assignment. The goal is to create a sense of belonging in the education setting. Texting or IM can be used to create a community of writers where their ideas and writing struggles are shared and the community can provide support to the individual members (Sweeny, 2010). The writing itself does not always follow traditional conventions, featuring instead images, audio recordings and a form of shorthand in which vowels and punctuation are irrelevant and time-consuming to use. ICT can then serve as a vital tool to facilitate the learning process.

Based on the literature presented, it can be summarized that there are many studies which suggest the potential of ICT as a pedagogical tool in the future. Internet websites and weblogs are said to be useful in enhancing students' language skills. Besides, the features of electronic texts and books are can be considered in the reading classrooms in the future, looking at the interactivity features they offer. Moreover, the online community, be it in the form of social networking sites or specific websites could provide support to the individual members besides creating a sense of belonging in the educational setting.

The impact of ICT on the future of teachers: The use of ICT in the teaching and learning processes in schools brings momentous impact on the future of teachers. The impact can be looked at in terms of the role of the teacher, the methods of instruction and the methods of assessment. First, the role of the teacher will change from the sole knowledge provider to a facilitator or moderator. As suggested by Mullamaa (2010), the role of the teacher today is that of an advisor, an expert in the field whose task is to support the student's development. This is much more creative and much more challenging than the more traditional 'design and control the study process' concepts. When blogs are used in the teaching of writing for instance, students are free to take charge of their own learning and feel free to comment on each other's work. This is further supported by Lenhart *et al*. (2008) who discussed that students can become mentors to their classmates by

sharing their writing and processes for idea generation, style and the development of personal voice on a blog. By using a blog for discussion purposes, students can think through their thoughts, get feedback and use their peers' constructive comments to improve their writing. Constructive feedback, particularly from the teacher, provides writing motivation for students.

Besides the role of the teacher, the methods of teaching that teachers usually employ would also change alongside the adaptation of ICT into the field of education. From conventional discussions in the classroom, teachers can make use of online forums with the students. Students could then respond to the forum at their own pace, at the comfort of their own home. Through online forums, teachers could also lead students to other relevant and useful links on the internet to provide additional information on the discussed subject matter. Moreover, besides having the teachers themselves to teach and demonstrate a certain skill, say writing, students could also be directed to other sources on the internet such as the authors of the books they read. Sweeny (2010) agreed with this and further explained that writing can be a solitary Endeavour, but the process becomes less isolating when authors participate in writing communities where they hear about the writing process from other writers.

The Internet makes it possible for students to meet authors by introducing them through their websites and videos. Students can take notes while watching these videos to identify the authors' sources of inspiration, or they can emulate the processes shared by the authors. Given the reciprocal nature of reading and writing, teachers may want to use these author videos as a springboard for students to read a book by an author and use it as an inspiration and model for their own writing. The different websites maintained by the authors highlight besides insights into the life of each writer, hints into their writing processes, stories that can be used as models for students' literary criticisms and also providing a platform for the sharing of ideas for different genres. Some even provide students with suggestions for editing and revising their study. This would benefit both the teachers as well as students.

On the other hand, the medium of documents given in class will change too. What teachers usually do in class when they have handouts for students is to either to make copies of them or copy them on the black/whiteboard. With ICT, new technologies such as cloud computing make it easier for teachers to share documents online. Cloud computing also makes it easier for individuals to work collaboratively on documents and projects. Cloud computing refers to applications that are accessible through the Internet and reside on a central server (Devaney, 2010). Examples of this type of application include GoogleDocs (docs.google.com), which allows users to create documents that are stored on Google's server and can be accessed by multiple users. This capability means that a group of students can work collaboratively on a document that may include multimedia such as video, audio and hyperlinks, in which all revisions are visible and the finished product has been created by consensus (Sweeny, 2010).

Moreover, instead of bringing tonnes of exercise books or foolscap papers back home to be check, with the use of ICT, teachers can then check the students' work online. The medium of assessment will change from printed ones to e-assessment. This would also benefit the teachers in a way that they could assess their students wherever they are. It will be more convenient for teachers too. This view is supported by Roland (2006) who states that technology can ease teachers' assessment burdens and increase efficiency and effectiveness. The method of assessment would also change with the use of ICT in the teaching of reading and writing. The Internet and the World Wide Web was able to provide supplemental language activities which can help students with additional practice in specific areas of language learning. These include reading tests and comprehension questions, grammar exercises, pronunciation exercises, vocabulary tests, cloze tests and so forth. Students can search the Web for such web sites for their own learning. This can help them to enhance their English language learning (Melor, 2007).

In addition, this Internet era is fundamentally different from the era in which most teachers went to school and it will define the literacy and communication practices for a generation. Schools need to embrace ICTs so that students are prepared to function in a world where new literacies are the expectation and the norm. With the addition of Web-based information and multimodal text-text that uses modes other than traditional print, including still images, video, audio and music-literacy and specifically writing, has evolved into something that can convey meaning in unique ways. The texts we read have changed and so too can the texts we produce (Sweeny, 2010). In giving students homework, students should be encouraged to utilize the computer and email their writings to their teachers. After teachers have corrected the essays for instance, students could post them up in their blogs to be shared with a wider audience.

In summary, the literature suggests that ICT has the potential to give great impact on the future of teachers in terms of the role of the teacher, the methods of instruction and the methods of assessment. The role of the teacher will change from the sole knowledge provider to a facilitator or moderator; the methods of instruction will change from conventional discussions in the classroom to the use of online forums with the students; and the medium of assessment will change from printed ones to e-assessment.

METHODOLOGY

A semi-structured interview was used in this qualitative research. Overall, a total of 25 secondary school English teachers were interviewed. The teachers

were pragmatically and purposively selected from four different areas of Malaysia, 8 teachers from Tawau, 7 teachers from Alor Setar, 6 teachers from Tuanku Jaafar and 4 teachers from Kuala Lumpur, respectively. The interviewees were selected based on three criteria which are the willingness to participate and cooperate, capability of giving effective responses to the interview questions and lastly having teaching experience of at least 1 year. The interview questions were structured to find the answer for the following two research questions:

- How do Malaysian secondary school English teachers perceive the future of ICT as a pedagogical tool?
- What do Malaysian secondary school English teachers think the impact of ICT will be on the future of the teachers?

All the required permissions were taken from both the school principals and the teachers. Prior to conducting the interviews, the consent forms were read and signed by all the participants. All the interviews were conducted in English in September and October 2012. The interviews lasted for about 30 to 45 min and they were audio-recorded. After conducting the interviews, the recorded interviews were transcribed verbatim. They were also organized, coded and analyzed. In order to analyze the interview data, several steps have been taken. Right after each interview session, the researcher transcribed the recorded interviews and referred to his notes on what he has jotted down as the interview went along to avoid losing any important data which might become significant to the findings of this research. The researcher then contacted the research interviewees to confirm the accuracy of the transcriptions and notes as interpreted by the researcher. All the participants were given a pseudonym for the purpose of anonymity.

RESULTS AND DISCUSSION

Participants' demographic information: Table 1 summarizes the details of the interviewed teachers. As it can be seen, 25 secondary school English teachers were selected from four different areas of Malaysia. Twenty interviewees were female and five interviewees were male. The Table 1 clearly illustrates that only four teachers aged 20 to 30 and the remaining teachers aged over 30 indicating that the majority of the interviewed English teachers were middle-aged. All the teachers had at least one year of teaching experience.

Main findings of the interviews: The main findings of the study are presented based upon the following themes of the research questions:

Future of ICT: This section presents the findings gained from the interviewees' responses to the question

Table 1: Basic information about interviewed teachers

Area	Name	Gender	Age	Teaching experience (year)
Tawau	Ida	F	32	9
	Cindy	F	24	1
	Aliff	M	31	7
	Najeeb	M	40+	22
	Harith	M	25	1
	Hamzah	M	34	11
	Nisa	F	29	4
	Nabihah	F	28	4
Alor Setar	Lai	F	53	27
	Norlina	F	42	18
	Fadhil	M	53	30
	Siti	F	42	18
	Sarah	F	37	10
	Hasnah	F	55	34
	Zalilah	F	45	18
Tuanku Jaafar	Afrina	F	46	21
	Rafeah	F	56	33
	Hafiza	F	44	17
	Mazira	F	55	32
	Hanisah	F	52	30
	Rose	F	57	12
Kuala Lumpur	Nora	F	32	9
	Rinie	F	40	15
	Asyikin	F	46	21
	Anne	F	54	30

on whether or not ICT can become a pedagogical tool in the future. With regards to this issue, Nora who was a teacher in a secondary school in Kuala Lumpur had a positive attitude towards the future of ICT when she said:

ICT as a pedagogical tool provides a way for the teachers to gain more knowledge. ICT can be a good source of information. Teachers can be updated about things which are happening in the education field. They are able to keep in touch with the world using ICT.

From the same secondary school in Kuala Lumpur, Rinie spoke in the same encouraging tone but added a little more on the necessity of agreement between the use of ICT and the existing curriculum. She specifically stated that:

ICT is definitely useful but it has to go hand-in-hand with the curriculum. The whole system can't be too exam oriented. If exams are the main focus, teachers have no choice but to give more attention and focus on the exams. Some teachers are creative, you know, in using ICT but if they need to focus too much on exams, the creativity will be limited.

Rafeah from a secondary school in Tuanku Jaafar confirmed Nora's and Rinie's opinions that ICT can be a useful pedagogical tool. She highlighted that ICT can change the mode of learning in the future and directs learning towards a virtual learning. In her own words, she said that:

I think ICT can be a useful tool in education such as virtual learning and online conferences. In the future, maybe students don't have to go to school every day. They only go to school on certain days.

Interestingly, when asked to elaborate on how he sees ICT as a pedagogical tool, Najeeb who was a teacher in a secondary school in Tawau commented on the political issues in the country. He believed that whether or not ICT can really be a pedagogical tool in the future directly depends upon the policies of the national education system. He specifically stated that:

Using ICT as a pedagogical tool directly depends on the political policy of the country. A few years back we teachers were given laptops. Now no more. There are not enough laptops for us to use. So again it depends very much on the ministers who hold the portfolio. Teachers and students are like guinea pigs as the systems keep changing.

Impact of ICT: When the interviewees were asked to give their views on the impact of ICT on the future of the teachers, most of them believed that ICT will positively influence the teachers' method of teaching. They stated that the teachers inevitably have to integrate ICT tools into their lessons while they are teaching. They also emphasized that the teachers need to possess the knowledge how to use ICT in the classroom. Even Siti from a secondary school in Alor Setar believed that ICT affects young teachers positively and senior teachers negatively. She added that:

ICT influences novice teachers positively but it affects the senior teachers negatively because the senior teachers might be left behind due to the generation gap or age differences.

From a secondary school in Tawah, Cindy and Aliff believed that ICT provides more facilities for the teachers to teach more easily in the classroom. They also added respectively that:

ICT will have a positive impact on the teachers because if we use it properly and the government and schools provide both teachers and students with sufficient ICT tools, it will definitely give a great impact to the teaching and learning process of the language.
The teachers have to master ICT because it will make teaching and learning easier, more convenient and less time-consuming.

From a secondary school in Tuanku Jaafar, Hanisah believed that teaching will become more challenging where teachers must be well-equipped with the latest information in the IT world. Moreover,

Hamzah who was teaching in a secondary school in Tawau stated that:

ICT will be a necessary aide but I doubt teachers will become obsolete especially for the younger learners because the human touch will become even more necessary with the advent of emotionless technology.

However, Rinie who was teaching in a secondary school in Kuala Lumpur spoke in a different tone when she said:

I don't think ICT will impact the teachers too much. You must remember that knowledge doesn't come from the tools. ICT is still a tool. The knowledge and content should still come from the teacher. The teachers need to enhance their knowledge themselves.

From the same school, Anne had a similar opinion and pointed out that:

Teaching is something where we need to have contact with the students. The bonding has to come from us. Teacher is still the sole provider of the knowledge. The machine cannot do everything for us. Even with ICT, students still need to listen to our explanations. And students are not all of the same level.

DISCUSSION AND CONCLUSION

In answer to two propounded research questions, the findings from the semi-structured interviews can be summarized and discussed as follows.

Most of the interviewees think that ICT can be a pedagogical tool in the future. This finding supports the studies which have indicated that the use of ICT in ESL and EFL classrooms can enhance language learning in terms of promoting authentic text-based language communication in electronic environments and increasing students' motivation in producing texts (Tu et al., 2007; Larson, 2008; Sweeny, 2010). Similarly, this is in agreement with Yunus et al. (2009) findings that it is vital for the teachers in schools to encourage and guide the students to use ICT tools (internet) and provide them with some suggestions of websites available which are useful for enhancing students' language development.

The feedback by teachers show a positive and encouraging dimension on the acceptance of the idea to integrate ICT in language learning, which includes the teaching of reading and writing in an ESL context. When teachers themselves believe that ICT has the potential to be a useful pedagogical tool in the future, the drive will further motivate them to find means to improve themselves, especially those who are not competent in handling ICT equipments.

In contrary to the direct positive comments, a teacher commented on the political issue in the country. Her thought was that whether or not ICT can really be a pedagogical tool in the future directly depends on the politics and it is largely affected by which minister holding the portfolio that manages the national education system. She also added her view on how the teachers and students are like 'guinea pigs' for the 'experiments' carried out when systems are changed. In any country at all, we cannot run away from politics. This teacher felt disappointed with the systems in the nation that kept on changing. Teachers, in whatever situations, have to be able to adapt to different systems and try to make the best out of what they have.

Some of the interviewed teachers believed that ICT could not impact the teachers. A teacher, as they remarked, is one who should be able to impart knowledge even without the teaching aid of ICT. This scenario is not in agreement with the literature in the sense that the literature suggested that the role of the teacher will change from the sole knowledge provider to a facilitator or moderator. As suggested by Mullamaa (2010), the role of the teacher today is that of an advisor, an expert in the field whose task is to support the students' development. Some of the teachers in Technical Cluster Schools are still holding on to the conventional view of a teacher as the sole knowledge provider.

Besides that, ICT is said to have the potential to put positive impact on the future of young or novice teachers but it will put negative impact on existing senior teachers because of the generation gap or age differences. This is possibly because the senior teachers do not keep themselves up to date and therefore they are not able to put themselves on the same platform to see the world with the same perspectives as the current generation of students. The lack of ICT training from time to time could also cause senior teachers to lose out on the latest computer technologies as well as the skills to handle ICT equipments, what more to say to integrate them into their teaching.

In summary, the findings of this study revealed that ICT has the potential to influence the future of the teachers in terms of the role of the teacher, the methods of instruction and the methods of assessment. It was also concluded that, in the future, the role of the teacher will be changed from the sole knowledge provider to a facilitator or moderator; the methods of instruction will be changed from conventional discussions in the classroom to the use of online forums with the students; and the medium of assessment will be changed from printed ones to e-assessment.

REFERENCES

Considine, D., J. Horton and G. Moorman, 2009. Teaching and reading the millennial generation through media literacy. J. Adolesc. Adult Lit., 52(6): 471-481.

Devaney, L., 2010. Six Technologies Soon to Affect Education. eSchool News, 15 April. Retrieved from: www. eschoolnews. com/2010/04/15/six-technologies-soon-to-affect-education-2/?ast = 40. (19 November 2012).

Larson, L.C., 2008. Electronic reading workshop: Beyond books with new literacies and instructional technologies. J. Adolesc. Adult Lit., 52(2): 121-131.

Lenhart, A., S. Arafeh, A. Smith and A.R. Macgill, 2008. Writing, Technology and Teens. The Pew Internet and American Life Project, Washington, DC.

Lewis, R., 2003. Editorial: Changing time. J. Comput. Assist. Lear., 19: 399-400.

Melor, M.Y., 2007. Malaysian ESL teachers' use of ICT in their classrooms: Expectations and realities. Eur. Assoc. Comput. Assist. Lang. Learn. ReCALL, 9(1): 79-95.

Mullamaa, K., 2010. ICT in language learning-benefits and methodological implications. Int. Educ. Stud., 3(1): 38-44.

Nordin, N., M.A. Embi and M.M. Yunus, 2010a. Mobile learning framework for lifelong learning. Proceeding of the Social and Behavioural Sciences, International Conference on Learner Diversity, 7: 130-138.

Nordin, N., M.I. Hamzah, M.M. Yunus and M.A. Embi, 2010b. The mobile learning environment for the in-service school administrators. Proceeding of the Social and Behavioral Sciences, 7: 671-679.

Oakley, G. and J. Jay, 2008. Making time for reading: Factors that influence the success of multimedia reading in the home. Read. Teac., 62(3): 246-255.

Roland, J., 2006. Measuring up. Learn. Lead. Technol., 34(2): 12-17.

Salehi, H. and Z. Salehi, 2011. Washback effect of high-stakes tests on ICT usage: Teachers' perceptions. Aust. J. Basic Appl. Sci., 5(12): 1976-1984.

Salehi, H. and Z. Salehi, 2012. Integration of ICT in language teaching: Challenges and barriers. Proceedings of the 3rd International Conference on e-Education, e-Business, e-Management and e-Learning (IC4E, 2012), IPEDR, 27: 215-219.

Sweeny, S.M., 2010. Writing for the instant messaging and text messaging generation: Using new literacies to support writing instruction. J. Adolesc. Adult Lit., 54(2): 121-130.

Tu, C.C., P.C. Chen and M.Y. Lee, 2007. Fostering EFL learners' writing competence through web-based guided writing. WHAMPOA Interdiscipl. J., 53: 225-244.

Yunus, M.M. and H. Salehi, 2012. The effectiveness of Facebook groups on teaching and improving writing: Students' perceptions. J. Educ. Inform. Technol., 1(6): 87-96.

Yunus, M.M., M.A. Lubis, C.P. Lin and I.S. Wekke, 2009. Language learning via ICT: Students' experience. Proceedings of the 5th WSEAS/IASME International Conference on Educational Technologies (EDUTE' 09), pp: 136-142.

Yunus, M.M., P.L. Chua, A.L. Maimun and R. Rizauddin, 2010. Evaluation of ICT usage for General or English Learning Purposes. pp: 205-211. Retrieved from: www. wseas. us/e-library/ conferences/2010/Japan/EDU/EDU-33.pdf.

Yunus, M.M., H. Salehi and C. Chenzi, 2012. Integrating social networking tools into ESL writing classroom: Strengths and weaknesses. Engl. Lang. Teach., 5(8): 42-48.