Barriers Teachers Face in Integrating ICT During English Lessons: A Case Study

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ABSTRACT

The government has assured all Malaysians that no one; both in rural and urban areas; would be deprived of the Information and Communication Technology (ICT) development. This calls for a need for teachers nationwide to make necessary adjustments to the teaching and learning process. This paper takes a closer look at the barriers faced by teachers in integrating ICT tools in teaching the English language in the classrooms. This study aimed at determining the reasons teachers do not use ICT in the classrooms, even though they are provided with sufficient technical supports. A total of twelve English teachers from an Independent Chinese secondary school were interviewed and their views were analysed through thematic content analysis. The findings revealed that although the school was highly resourced with ICT tools and facilities, barriers such as teachers' hesitancy in integrating ICT, amount of workload, lack of time, teaching experience and age and lack of ICT skills were impeding the teachers to incorporate ICT in their teaching. Thus, sufficient training, motivation, encouragement, flexible time and task arrangement for teachers are necessary in order to provide opportunities for them to incorporate ICT resources into their teaching. Future research could focus on more effective ways to overcome the barriers of ICT integration in education.

Keywords: *Information and Communication Technology (ICT); Teachers and ICT; Barriers of ICT Integration*

INTRODUCTION

Initially a child is brought up with an ability to read, write, and count. However, skills in ICTs are becoming another essential ability for the child to acquire. According to Ferrero (2002), the present young people, the so-called 'Net Generations' usually adapt quickly to technology and are considered to master the technological devices better than adults. Consequently, the Net Generation impacts the situation in the schools. Therefore, there have been worldwide changes taking place in the teaching and learning process towards the use of ICT tools. The schools are faced with a new social and cultural transformation that challenges teachers and students in relation to their technical ability, knowledge and expertise in the use of ICT. Moreover, the implementation of 'ICT for all students' in Malaysia in 2012 has resulted in a growing demand for teachers to use ICT into their lessons in order to provide learners a meaningful learning. However, the success of such innovation depends greatly on teachers' adoption of ICT in the classroom. According to a nationwide survey by the Software and Information Industry Associated (SIIA), technology integration in schools remains practically unchanged because of teachers' lack of adoption of technology in the classroom. In general, several studies have identified that one of the top barriers for teachers to integrate ICT in their teaching was lack of technical support available in schools.

However, the school in this case study is an Independent Chinese Secondary School that was set up with lots of facilities for integrating ICT in teacher's teaching and learning. The school is also expanding an extensive part of their annual budget on maintaining the ICT tools. From the observation, although the school was highly resourced with ICT tools, there were a number of teachers refused to integrate the ICT tools into their teaching and learning. Some barriers have discouraged the teachers to integrate ICT in the classroom. Determining the barriers for using ICT in teaching and learning can help the teachers to overcome the obstacles and integrate the ICT in everyday lessons. Thus, this study aims to determine the reasons teachers do not use ICT in the classrooms even though they are provided with sufficient technical supports.

LITERATURE REVIEW

ICT in Teaching and Learning

The Ministry of Education views ICT as a tool to revolutionize learning, to produce richer curricula, enhanced pedagogies, more effective organizational structures in schools, greater relations between schools and society and the empowerment of learners. This shows that the integration of ICT in teaching and learning is indispensable in the current competitive world as it provides numerous benefits. Carmen et al. (2003) also stated that integrating ICT tools in teaching could enhance students' learning competencies and provide opportunities for communication. According to Plomp et al (1996), there are three objectives which distinguish the use of ICT in education such as, the use of ICT as an object of study, an aspect of a discipline or profession and a medium for teaching and learning.

The teacher is a key to improving learning with ICT. Teachers' attitude towards the use of technology in teaching and learning process is one of the main factors for achieving a meaningful use of computer technology in the field of education. Albirini (2006); Baylor and Ritchie (2002) stated the success of technology use in the educational settings largely depends on teachers' attitudes toward technology use. Moreover, teachers' attitudes are considered as a major predictor of the use of new technologies in the educational settings (Albirini, 2006). Therefore, their attitudes towards computer can play an important role in the acceptance and actual use of computers. Kluever et al. (1994) also supported that the successful utilization of technologies in the classroom depends mainly on the teachers' attitudes toward these tools in adopting and integrating. Hence, it can be understood that teachers' attitudes have direct impact on the usage frequency of technology and usage amount of the technology.

Barriers in Integrating ICT in Teaching and Learning

Studies reveal a number of factors which influence teachers' decisions to use ICT in the classroom. According to Schiller (2003), personal characteristics such as educational level, age, gender, educational experience, experience with the computer for educational purpose and attitude towards computers can influence the adoption of a technology. The study conducted by Jones (2004) discovered seven barriers affected the integration of ICT into lessons: lack of confidence among teachers during integration, lack of access resources, lack of time for the integration, lack of effective training facing technical problems in use, lack of personal access during lesson preparation, age of the teachers, and teaching experiences.

Kumar et al (2008) found attitude, motivation, gender, age and computer training have effects on the Actual Usage of Computers (AUC) by teachers. According to Sang et al (2009) and Zhao & Cziko (2001), teachers' educational beliefs impact on their use of ICT. Besides, Richardson (2009) claimed that the ICT integration in teaching is still difficult for some teachers due to lack of training and practice.

Jones (2004) and Keong et al (2005) determined that lack of technical support was a barrier to the successful integration of ICT in teaching. Lack of technical support discourages teachers from adopting and integrating technology in classrooms (Korte & Husing, 2007). Becta (2004) also agreed that lack of technical support available in schools and technical maintenance is the main problem in integrating ICT in classrooms. Thus, there are still several factors hindering the integration of ICT into lessons. Hare (2007) also stated that lack of policy framework, inadequate infrastructure and high cost, and inadequate in-service training on ICT integration in education.

THE STUDY

As the aim of this study was to determine the reasons teachers do not use ICT in the classrooms, this study employed a methodology that is qualitative in nature; seeking teachers' voices towards the integration of ICT. This was done through a Case Study involving twelve teachers from an Independent Chinese Secondary School, which was highly resourced with ICT tools and facilities. A semi-structured interview was chosen as it is the most appropriate strategy to elicit insights towards understanding a phenomenon (Creswell, 2007). The interviews were transcribed and analyzed through thematic content analysis. A list of categories was generated from the data to form the frame for analysis.

FINDINGS

Several themes were sorted out from the twelve teachers' voices.

Table 1: The barriers of ICT integration in English lessons

Number of Teachers	Excerpts from transcripts	Themes
	"My concentration is more to the syllabus, exercises and practices. Hence, I think, it is inappropriate to use ICT tools for the examinations classes. It is very difficult to access students' responses if we use the ICT tools. Smart and easily catch up students could do better. Meanwhile, the slow learners need more guidance." (Respondent 2)	
	"I prefer reality experiences rather than looking at monitors. So, applying ICT tools in English classrooms is not effective. However, traditional forms are more effective." (Respondent 3)	
	"I don't like to use computers. Let the young people learn about it. It won't be used to me anymore." (Respondent 4)	
	"Some of my students like to chit-chat with their friends whenever I use the computer in the classroom. I could not pay full attention to all the students at one time because I have about 55 students in each class. So, the students took this as their advantage and lost their concentration on studies." (Respondent 5)	
8 (66.67%)	*"I'm teaching form 5 classes. I think, using images, colours and music to create an interactive classroom is not applicable for 17 years old students. They are matured enough and they need to prepare themselves for examinations. I'm not a fancy of computers or other ICT tools. So, I do not to prefer to attend any ICT training."* (Respondent 6)	Teachers' hesitancy in integrating ICT
	"It's hard for language teachers to incorporate the ICT tools in their teaching and learning activities." (Respondent 8)	
	"I believe in traditional methods which let the students touch, feel and learn. I could make an interactive lesson without using the ICT tools." (Respondent 9)	
	"I am tired of marking the student's books and examination papers plus writing the record book every day. Integrating ICT tools in teaching and learning is really headache and so much of a burden." (Respondent 10)	
	"I was forced to finish my syllabus and the PBS assessment." (Respondent 1)	
	"I'm busy with completing the syllabus and other administrative tasks. Now they have implemented the new school-based assessment system. It is really burdening." (Respondent 5)	
5 (41.67%)	*"There is no time to finish up the syllabus and prepare the students for examination. I need to mark all their grammar, vocabulary, composition, literature, comprehension and additional exercise*	Workload

	books. Teachers have to prepare lots of extra materials for the PBS assessment." (Respondent 8)	
	"I have more than 50 students in each class. I am tired of marking the student's books and examination papers plus writing the record book every day." (Respondent 10)	
	"Moreover, we are overloaded with our tasks, especially our junior teachers have to conduct the school-based assessment. It requires extra timeframe." (Respondent 12)	
4 (33.33%)	*"Once the educational system of Malaysia has changed the assessment styles, I was forced to finish my syllabus and the PBS assessment. There is no time to use ICT tools in the classroom."* (Respondent 1)	Lack of time
	"Now they have implemented the new school-based assessment system. It is really burdening. So, I don't have enough time to go through the lessons via ICT tools." (Respondent 5)	
	"Using ICT in English classes is really time consuming. There is no time to finish up the syllabus and prepare the students for examination." (Respondent 8)	
	"There is no any problem in using ICT but using ICT tools in English lessons is waste of time. Because, 1 period is just 40 minutes and the limited time is really not enough to set up all those ICT tools and start the lesson." (Respondent 12)	
3 (25.0%)	*"I have 10 years of teaching experiences. So, I'm very convenient in using my manual ways and I did not grow up in the technological environment. I prefer reality experiences rather than looking at monitors."* (Respondent 3)	Teaching experiences and age
	"I am too old to adapt to the new teaching styles and I am happy with my own teaching period." (Respondent 4)	
	"My age is 53 and I have been teaching English more than 25 years. I believe in traditional method which let the students touch, feel and learn. I could make interactive lesson without using the ICT tools. I think this is not the time for ICT integration in my teaching." (Respondent 9)	
2 (16.67%)	*"I feel hard and inconvenient whenever preparing the lesson materials and question paper because I'm very poor in using the tools in computer. Moreover, it takes long time for typing. So, lack of ICT competence and knowledge is my problem."* (Respondent 7)	Lack of ICT skills
	"I have no enough skills to incorporate ICT tools in my teaching because I did not attend any ICT training. I really need more guidance and help from the other teachers in preparing examination papers itself." (Respondent 11)	

DISCUSSION

Eventually, the voices brought up several important issues as the barriers for the ICT adoption and integration in English lessons.

Teachers' hesitancy in integrating ICT

According to Jones (2001), the attitudes of teachers towards technology greatly influence their adoption and integration of computers into their teaching. He also stated that, the teachers prefer to use the traditional method for teaching English language in their classroom because of their lack of motivation, acceptance and readiness towards the ICT integration and adoption in teaching and learning process.

Interviews with the teachers revealed that their reluctance towards the use of ICT is a major barrier for ICT integration and utilization in the English language classrooms. 8 teachers (66.67%) reported reasons such as listed below are the major obstacles for them to integrate ICT tools in their lessons.

i.   Focusing on syllabus and rushing to finish it.
ii. Concentrating on fulfilling the teachers' tasks and responsibilities.
iii. Students are matured enough, so they do not need audio or visual strategies for teaching
iv. The belief that examination classes like PMR and SPM should not indulge themselves in ICT integration during the lessons.
v.   The thought that classrooms with large number of students are not suitable for ICT incorporation.
vi. Difficult to manage students if ICT was used in the classrooms.
vii. Old or experienced teachers do not want to accept and adapt to the changes.
viii. Old or experienced teachers do not want to receive any training on ICT in order to improve their ICT competence.
ix. Views of teachers that traditional methods are always effective ways.

Few claims made by the respondents:

"*My concentration is more to the syllabus, exercises and practices. Hence, I think, it is inappropriate to use ICT tools for the examinations classes"* (Respondent 2). *"I think, using images, colours and music to creative an interactive classroom is not applicable for 17 years old students"* (Respondent 6). *"They are matured enough and they need to prepare themselves for examinations. It's hard for language teachers to incorporate the ICT tools in their teaching and learning activities"* (Respondent 8).

The study conducted by Hennessy et al. (2010) also indicated that teachers' attitudes, expertise, lack of autonomy, and lack of knowledge to evaluate the use of and role of ICT in teaching (technophobia in teachers) are the prominent factors hindering teachers' readiness and confidence in using ICT support.

Some of the teachers were enthusiastic to integrate IT tools in English teaching and learning but during the implementation stage their keenness decreases and they fall back to their traditional mode of teaching. Although the teachers are reluctant to change their mindset towards the integration of ICT in their teaching and learning process, they should be aware of the importance of ICT and should make an effort to update their professional development.

Workload

Meanwhile, 5 teachers (41.67%) highlighted the workload problem. The teachers said that they are over-loaded with administrative tasks such as preparation of report cards, making attendance reports, filling the record book and form. The teachers also do not wish to incorporate ICT tools into English lessons because of their concentration on examinations and syllabi. Some teachers were afraid that they could not finish the syllabus in time. They also revealed that ICT is difficult to integrate in the classes which consist of large number of students. The teachers were burdened with the tasks of marking examination papers, students' exercise books and workbooks. Some of the comments supported this barrier:

"I was forced to finish my syllabus and the PBS assessment" (Respondent 1*). "I am tired of marking the student's*

books and examination papers plus writing the record book every day" (Respondent 10). *"We are overloaded with our tasks especially we junior teachers have to conduct the school-based assessment"* (Respondent 12).

Therefore, the teachers stressed that workload is a major barrier for them to integrate ICT tools in the English language classrooms. Similar problem was highlighted by Abuhmaid (2011) in his study. He found that the teachers were already overloaded and they could not cope with the pressure to prepare and practice the ICT integration into lessons. Moreover, the transformation and innovation of national educational system and the independent school's syllabus increases the teachers' workload. They have to prepare different assessment and worksheets for students in their midst of busy working schedule. According to the respondents, few of them emphasized the new assessment system which is called School- Based Assessment (SBA). SBA is a holistic form of assessment which evaluates the cognitive, affective and psychomotor domains, encompassing the intellectual, emotional, spiritual and physical aspects of the learners (Malaysian Education Ministry: 2012).

The idea of implementing SBA in schools in the attempt to replace the current public examinations causes much hue and cry in schools especially among the teachers (New Straight Times:2013). This is because the teachers are required to carry out many tasks in order to achieve the SBA goals effectively. For instance, the teachers have to:

i.   Collect, record, store and update students' data and assessment information
ii.   Prepare materials and documents of assessment
iii. Mark the assessment
iv.   Formulate remedial tasks
v.   Update the students' information and progress to the district, state or ministry
vi.   Attend meetings and briefings on assessment
vii. Manage the correspondence regarding assessment
viii. Manage the assessment records in the event of student exchange
ix.   Explain students' performance to their parents
x.   Carry out other tasks related to SBA from time to time
xi.   Complete school routines

(UPSI: 2012)

Consequently, the teachers work roles have been expanded and overburdened.

Lack of Time

One of the factors that hinders the teachers' decision to integrate ICT was the availability of time. Out of 12 teachers, 4 teachers (33.33%) stated that lack of time was a barrier to integrate ICT in the classrooms. They felt that there was no time given for them to plan and to integrate ICT into the lessons since they were extremely busy in achieving the goals of syllabi. As two of the teachers stated,

*"I don't have enough time to go through the lessons via ICT tool" (*Respondent 5). *"Limited time is really not enough to set up all those ICT tools and start the lesson"* (Respondent 12).

According to Dang (2011), the lesson preparation using ICT is time consuming because as the rule of thumb, one hour of ICT- enhanced lesson would require about 3 to 4 hours of preparation. Thus, the teachers faced problem either in preparing the lessons or in conducting the lessons within the limited time. Moreover, the teachers need additional time to set up all the ICT tools in the classrooms. So, the teachers felt that they could accomplish the required tasks during their lesson hours instead of setting up the ICT tools. Kozma et al. (2004) also claimed that the biggest barriers to the use of computers by teachers were the lack of time available in classes and in their own schedules for planning.

Teaching Experiences and Age

Several studies found that teaching experiences and age influence the successful use of ICT in classrooms (Wong & Li, 2008; Giordano, 2007; Hernandez-Ramos, 2005). Similar findings can be found in research carried out by Gorder (2008) which was reported that teacher experience is significantly correlated with the actual use of technology. She discovered that effective use of computer was related to technological comfort levels and the liberty to shape instruction to teacher-perceived student needs. Accordingly, 3 teachers (25%) indicated that their age and teaching experiences were the barriers to adapt to the ICT integration into their lessons. The older teachers with more experience in teaching did not prefer to use ICT tools in their English classes. The teachers explained,

"I am too old to adapt to the new teaching styles and I am happy with my own teaching period" (Respondent 4). *"I believe in traditional method which let the students touch, feel and learn. I could make interactive lesson without using the ICT tools"* (Respondent 9).

In the past years, the educational system was entirely different as compared to this net era. The curriculum emphasized the traditional method in conventional ways such as the use of textbook learning, rote learning, spoon-feeding technique, rote memorization, and learning which is limited to the two covers of the books and the four walls of the room (PAFTE 2004). Therefore, the teachers who were used to the traditional method did not desire to use the modern tools in their lessons. Besides, some older teachers critiqued themselves as too old to adapt to the new ICT tools and did not want to accept the new methods of teaching. It is clear that the older and more experienced teachers do not acquire the new skills because of their impatience and tenacity towards the technologies.

Lack of ICT Skills

Among the 12 teachers, 2 teachers (16.67%) brought up the issue of poor ICT skills as an obstacle for them to incorporate the ICT tools in English language classrooms. They did not get proper training on ICT tools; therefore, they are not confident or competent in using the ICT. The teachers did not receive any ICT training at the teachers' training colleges or universities where they trained and therefore, they did not get chances to understand the significant roles of the ICT tools. Moreover, the teachers do not take any initiative to learn and improve their ICT competence. The two teachers' lamented,

"*Lack of ICT competence and knowledge is my problem"* (Respondent 7). *"I have no enough skills to incorporate ICT tools"* (Respondent 11).

Knezek and Christensen (2002) stated that teachers' competence with computer technology is a key factor of effective use of ICT in teaching. So, the teachers who do not have ICT competence could not integrate the ICT tools in their teaching. Some other research studies such as Albalat & Tarrago, 1995; Braak, 2001; Chu, 2000; Hodgson, 1995; Vanderlinde, Braak & Hermans, 2009; Venezky, 2004 also agreed that effective use of computers is reliant on the teachers' ICT skills as well as their intentions towards ICT use (Divaharan and Ping, 2010). Divaharan and Koh (2010) also claimed that teachers' professional development has to concentrate on both ICT skills training and appropriate ICT integration strategies in the curriculum. Therefore, the teachers need knowledge of appropriate ICT integration approaches and ICT skills to successfully incorporate the ICT tools into their lessons.

Hence, the research question "*why do these teachers not use ICT tools in their English classrooms even though the school is fully supported with highly resourced ICT tools and maintenance?*" was answered by the respondents. The barriers such as, lack of time, workload, teaching experiences and age, lack of ICT skills and the negative attitudes of teachers towards ICT are hindering the teachers' integration of ICT in their English classrooms. The findings also revealed that School-Based Assessment is proven to be one of the barriers for integrating ICT in English classrooms.

CONCLUSION AND IMPLICATIONS

Teachers should be capable of forming and organizing their learning environment in non-traditional ways by merging the ICT with new pedagogy. Thus, trainings, motivation and encouragement should be given to the teachers in order to avoid their hesitancy in adopting ICT into their lessons. Teachers should develop their classroom management skills in order to control and involve the students in their lessons. Moreover, they should learn and acquire the innovative ways of integrating ICT to enhance teaching and learning process. The teachers who are rooted in the traditional method should accept the technological changes and need to develop their teaching professionalism.

Meanwhile, sufficient training, flexible time and task arrangement for teachers are necessary in order to provide opportunities for them to incorporate ICT resources into their teaching. The schools should play an important role in reducing teachers' burden and workload by structuring the administrative tasks and teachers' tasks. According to the respondents' responses, the school management can hire clerks in order to manage the academic administrative tasks. The changes and development of ICT are skyrocketing. The young have already mingled with this digital world. Therefore, the teachers should realize this reformation and should be more advanced than the students to perform along with the students' expectations. Future research could focus on more effective ways to overcome the barriers of ICT integration in education.

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