

## Integration of ICT in language teaching: Challenges and barriers

Hadi Salehi <sup>+1</sup> and Zeinab Salehi <sup>2</sup>

<sup>1,2</sup>Faculty of Literature and Humanities, Najafabad Branch, Islamic Azad University, Najafabad, Isfahan, Iran

**Abstract.** The use of information and communications technology (ICT) in education is a relatively new phenomenon and it has been the educational researchers' focus of attention for more than two decades. Educators and researchers examine the challenges of using ICT and think of new ways to integrate ICT into the curriculum. However, there are some barriers for the teachers that prevent them to use ICT in the classroom and develop supporting materials through ICT. The purpose of this study is to examine the high school English teachers' perceptions of the factors discouraging teachers to use ICT in the classroom. To this end, 30 high school English teachers were selected from the five main educational districts in the city of Isfahan, Iran, to respond to a validated questionnaire. Stratified random sampling was used to select equal number of respondents from each educational district. The analysis of the data revealed that insufficient technical supports at schools and little access to Internet and ICT prevent teachers to use ICT in the classroom. Moreover, shortage of class time was another important discouraging factor for the teachers to integrate ICT into the curriculum.

**Keywords:** Information and Communications Technology (ICT), Integration, Challenges, Barriers, Perceptions, English Language Teaching (ELT)

### 1. Introduction

English Language Teaching (ELT) is an area that has changed over the years, moving from very teacher-centered approaches to learner-centered ones (Richards, 1985). ELT projects have been introduced throughout different parts of the world (Markee, 1997; Rea-Dickins and Germaine, 1998) and innovations have brought changes in materials (supplementary, self-study, authentic, etc) and technology devices (language laboratories, tape recorders, video recorders, computers, etc). More recently, the use of technology as a tool to develop the different language skills has received great attention (Dudenny, 2000; Chapelle, 2001; Young, 2003; Melor Md Yunus, 2007) so that ELT teachers are frequently exposed to new practices. Apart from curricular changes that come officially- usually from the Ministry of Education in each country- workshops and short trainings introduce new techniques and activities or promote new materials. Accordingly, ELT teachers are accustomed to frequent subject innovations, but not necessarily more resourceful or open to new ideas. The use of technology devices, such as televisions, tape recorders and video recorders have been incorporated as a tool for language teaching since 1960s. There was evidence of many problems in terms of technical skills at the beginning, and it took about a generation for the technical skills and the technical problems to be ignored out. However, teachers are faced with some barriers that prevent them to employ information and communications technology (ICT) in the classroom or develop supporting materials through ICT. Therefore, this study aims to explore the high school English teachers' perceptions of the factors preventing teachers from using ICT in the classroom.

### 2. Research background

The integration of ICT in teaching and learning is not a method; rather it is a medium in which a variety of methods, approaches and pedagogical philosophies may be implemented (Garret, 1991). This statement shows that the effectiveness of ICT depends on how and why it is applied and integrated. According to

---

+ Corresponding author. Tel.: (0060176538260)  
E-mail address: hadisalehi1358@yahoo.com

Taylor (1980), ICT usage is classified to tutor, tool and tutee. Tutorial programmes lead learners step-by-step through a programme such as drill and practice. Using technology as a tool can help other types of problems, for example, technology as a tool is frequently seen in tutorial or explanatory programmes (Means et al., 1993). ICT acts as a tutee where students programme the computers in order to gain more understanding.

A number of different ICT tools and applications may be integrated in teaching and learning (Melor Md Yunus, Lubis and Lin, 2009). Some of these tools and applications may be designed specifically for educational purposes and some others for more general use. The choices of resources, and the way they are used, can be linked to different learning theories which may be invoked to explain or predict learning benefits from the use of ICT (Wilshart and Blease, 1999). Roblyer and Edwards (2000) believe that the use of ICT in education has evolved from two main approaches, namely directed and constructivist instructional methods. The theoretical foundations of directed instruction are based on behaviorist learning theories and information processing theory, which is a branch of cognitive psychology. The theoretical foundations of the constructivist approaches are based on the principles of learning derived from cognitive learning theory.

### 3. Methodology

A survey questionnaire was used to examine the high school English teachers' perceptions of the factors discouraging teachers to use ICT in the classroom. Thirty high school English teachers (18 male and 12 female) were stratified randomly selected from all the educational districts in the city of Isfahan, Iran, to respond to the questionnaire. The participants **were** familiar with the use of ICT since most of them used the Internet for the purposes of gathering information, sending email and working on social networking.

The questionnaire consisted of five main parts and was designed and prepared in English. However, to achieve the aim of this paper, the results obtained from parts two and four are reported in the following section. Part two consisted of three multiple-choice items related to the teachers' familiarity with ICT and part four, including eight items, dealt with the factors that discourage teachers to use ICT in the classroom. All the items in part four were designed on a five-point Likert scale of agreement. The five-point Likert scale was employed as it is one of the most commonly accepted Likert scales in the education field (Cohen, 1976; Green, 2007; Melor Md Yunus, Salehi & Kashefian-Naeeni, 2011).

### 4. Results and findings

The results and findings are presented in two separate sections. First, the analysis of the data obtained from the second part, teachers' familiarity with ICT, is presented. In the second section, the results are categorized according to the factors discouraging teachers to use ICT in the classroom.

#### 4.1. Teachers' familiarity with ICT

This part of the questionnaire, including three items, was related to the teachers' familiarity with ICT. When the respondents were asked about their personal experience with ICT, it was found that the majority of high school teachers (70 %) considered themselves as frequent or confident users of ICT. This belief is a clear indication of the high school teachers' familiarity with ICT; however, this does not necessarily mean that the teachers will integrate ICT into the curriculum. Less than one fourth of the respondents (23.3 %) were limited users of ICT and just two teachers had never personally used ICT. When the teachers were requested to judge about themselves regarding the use of ICT in the classroom, the majority of them (76.6 %) stated that they never use ICT in the classroom or they prefer to use it very little. As it can be seen in Table 1 and Figure 1, most of the teachers (83.2 %) believed that their colleagues are not familiar with ICT or they use the ICT very little. Based on the surveyed teachers' perceptions, just one sixth of the teachers (16.6 %) are frequent or confident users of ICT. In fact, the results of this item are not consistent with the results obtained from the first item in this part in which the teachers were asked about their personal experience with ICT.

Table 1: Teachers' familiarity with ICT

Items	Variables	Frequency	Percent (%)
-------	-----------	-----------	-------------

How is your personal experience with ICT?	Never Used	2	6.6
	Limited User	7	23.3
	Frequent User	14	46.6
	Confident User	7	23.3
How do you judge yourself in using ICT in your classes?	Never Used	10	33.3
	Limited User	13	43.3
	Frequent User	5	16.6
	Confident User	2	6.6
How do you think of other teachers' familiarity with ICT?	Never Used	11	36.6
	Limited User	14	46.6
	Frequent User	3	10.0
	Confident User	2	6.6

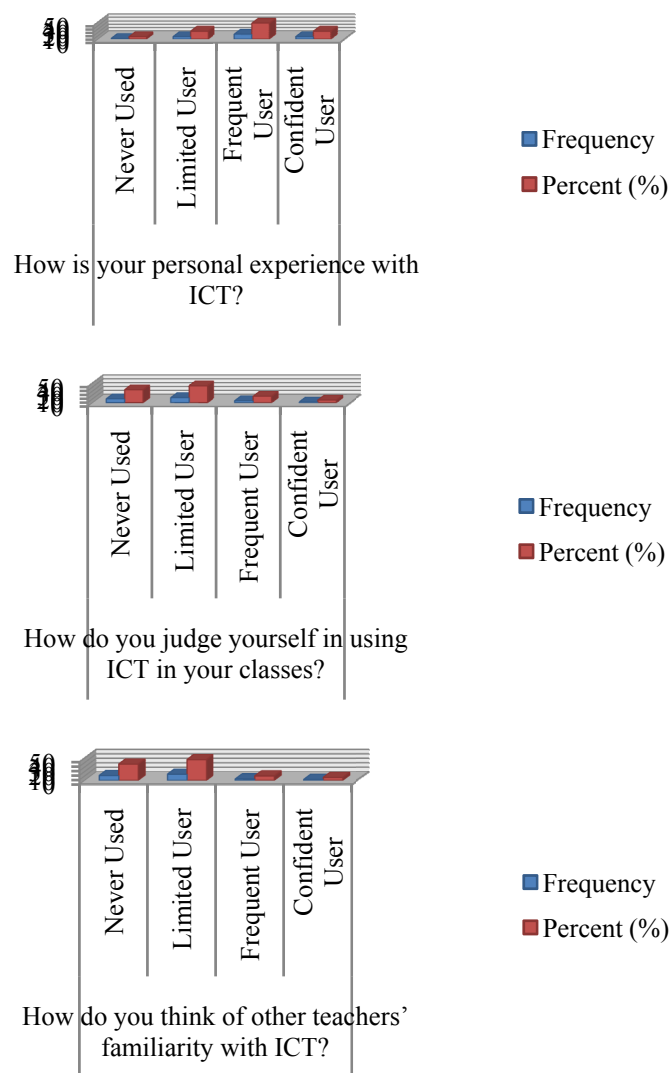


Figure 1: Teachers' familiarity with ICT

## 4.2. Factors discouraging teachers to use ICT

This part aimed to explore the teachers' perceptions of a list of 8 factors that discourage them to use ICT in the classroom. The obtained results are shown in Table 2. Table 3 also shows the most discouraging factors according to the mean scores. As it can be seen, just three items got the mean scores equal to or above 3.50, indicating the teachers' attitude towards these three items as the most discouraging factors that prevent

them to use ICT in teaching activities. Teachers believed that insufficient technical supports at schools and little access to Internet and ICT prevent them to use ICT in the classroom. Shortage of class time was another important discouraging factor for the teachers to integrate ICT into the curriculum. Moreover, the item “Time needed to learn using ICT prevents me to use ICT” received 40 percent of the teachers’ agreement.

However, more than two-thirds of the respondents believed that their colleagues’ negative attitudes and school views about ICT do not influence their perceptions of using ICT in the classroom. More than half of the surveyed teachers (56.6 %) also stated that society views about ICT and requirements of qualifications do not hinder them to use ICT applications in the classroom. In general, other people’s opinions regarding ICT do not influence the teachers’ perceptions of using ICT applications in the classroom.

Table 2: Factors discouraging teachers to use ICT

Statements	Strongly disagree and disagree		Undecided		Agree and strongly agree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Shortage of class time hinders me to use ICT.	8	26.6	3	10.0	19	63.3
Little access to ICT prevents me to use ICT.	2	6.6	4	13.3	24	80.0
Few ICT technical supports at schools discourage me to use ICT in classroom.	1	3.3	2	6.6	27	90.0
Society views about ICT hinder me to use ICT.	17	56.6	5	16.6	8	26.6
Colleagues’ negative views about ICT hinder me to use ICT in the class.	22	73.3	5	16.6	3	10.0
School views about ICT discourage me to use ICT.	20	66.6	3	10.0	7	23.3
Time needed to learn using ICT prevents me to use ICT.	14	46.6	4	13.3	12	40.0
Requirements of qualifications discourage me to use ICT.	17	56.6	3	10.0	10	33.3

Table 3: Factors discouraging teachers to use ICT

Statements	Mean
Few ICT technical supports at schools discourage me to use ICT in classroom.	4.33
Little access to ICT prevents me to use ICT.	4.23
Shortage of class time hinders me to use ICT.	3.50
Time needed to learn using ICT prevents me to use ICT.	2.93
Requirements of qualifications discourage me to use ICT.	2.60
Society views about ICT hinder me to use ICT.	2.50
School views about ICT discourage me to use ICT.	2.30
Colleagues’ negative views about ICT hinder me to use ICT in the class.	2.20

## 5. Conclusion

The integration of information and communications technology in teaching and learning is considered as a medium in which a variety of approaches and pedagogical philosophies may be implemented. However, ICT as a teaching aid is more complicated in that it demands more specific skills from the teachers. Moreover, teachers are faced with some barriers that prevent them to employ ICT in the classroom or

develop supporting materials through ICT. This study concluded that the high school teachers are familiar with ICT and ICT usage; however, this does not necessarily mean that they integrate ICT into the curriculum. In addition, insufficient technical supports at schools and little access to Internet and ICT prevent teachers to use ICT in the classroom. Shortage of class time and time needed to learn using ICT were reported as two other discouraging factors for teachers to integrate ICT into the curriculum.

## 6. References

- [1] Chapelle, C. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing and research (Vol.XVII)*. Cambridge: Cambridge University Press.
- [2] Cohen, L. (1976). *Educational research in classrooms and schools: A manual of materials and methods*. London: Harper & Row.
- [3] Dudeney, G. (2000). *The internet and the language classroom (Vol.X)*. Cambridge: Cambridge University Press.
- Garret, N. (1991). Technology in the service of language learning: Trends and issues. *Modern Language Journal* 75 (1), 74-101.
- [4] Green, A. (20007). Washback to learning outcomes: a comparative study of IELTS preparation and university pre-session language courses. *Assessment in Education*, 14 (1), 75-97.
- [5] Markee, N. (1997). *Managing curricular innovation*. Cambridge: Cambridge University Press.
- [6] Means, B., Blando, J., Olson, K., Middleton, T., Morocco, C., Remz, A. (1993). Using technology to support education reform. Retrieved 10 October 2011, from <http://www.ed.gov/pubs/EdReformStudies/TechReforms/>
- [7] Melor Md Yunus (2007). Malaysian ESL teachers' use of ICT in their classrooms: expectations and realities. *RECALL: The Journal of EUROCALL*. Vol.9 (1): 79-95.
- [8] Melor Md Yunus, Lubis, M and Lin, C. (2009). Language Learning via ICT: Uses, Challenges and Issues. *WSEAS Transactions on Information Science and Applications*. 6(9):1453-1467.
- [9] Melor Md Yunus, Salehi, H., and Kashefian-Naeeni, S (2011). The impact of high-stakes tests on the teachers: A case of the Entrance Exam of the Universities (EEU) in Iran. *Proceedings of the International Conference on Humanities, Society and Culture (ICHSC 2011)*, pp.221-22.
- [10] Rea-Dickens, P., and Germaine, K. (1998). *Managing evaluation and innovation in language teaching: Building bridges*. London, NewYork: Longman.
- [11] Richards, J. C. (1985). *The context of language teaching (Vol. XI)*. Cambridge: Cambridge University Press.
- Roblyer, M. D., and Edwards, J. (2000). *Integrating educational technology into teaching (2<sup>nd</sup> ed.)*. Upper Saddle River, New Jersey: Prentice Hall.
- [12] Taylor, R. P. (1980). *The computer in school: Tutor, tool, tutee*. New York: Teacher College Press.
- Wishart, J., and Blease, D. (1999). Theories underlying perceived changes in teaching and learning after installing a computer network in a secondary school. *Educational Technology*, 30 (1), 25-41.
- [13] Young, S. S. C. (2003). Integrating ICT into second language education in a vocational high school. *Journal of Computers Assisted Learning*, 19, 447-461.