

## Research Article

### An Investigation into EFL Instructors' Attitudes towards Using Instructional Technology in Language Classes: A Case Study

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**Abstract:** The present study aimed at determining EFL instructors' attitudes towards using technology in language classes. The participants of the study were 40 male and female EFL instructors at Guilan Province, Iran during the spring semester of 2010. The Technology Attitude Scale (TAS) was utilized to collect the relevant data. The TAS consists of twenty items with responses provided on a Likert scale. The participants were also asked to respond to three open-ended questions. Descriptive statistics was used to determine the respondents' attitude towards technology use. The findings of the study revealed that both male and females had an almost highly positive attitude towards technology. However, based on the descriptive statistics, the male instructors had a more positive attitude towards technology use compared to their female counterparts. To determine the role of gender, an independent-samples t-test was run which revealed no significant difference. One-way ANOVA showed that the responses of three groups of participants who were distinguished based on their teaching experience were not statistically different from each other. Based on the qualitative section of the study, the most important obstacles enumerated by the respondents were lack of facilities in language classes, teachers' lack of skills and relevant knowledge and students' preference of traditional methods and their lack of familiarity with technology use, respectively.

**Keywords:** Attitude, case study, EFL, instructional technology, instructors

## INTRODUCTION

Technology continues to influence the lives of human beings in various aspects in the new millennium. In particular, it has exercised a growing impact on educational systems. The information age is rapidly progressing and teachers have to prepare and equip themselves with the relevant knowledge and skills in the era of information technology to keep up with their field. As such, educators in the field of language teaching are always looking for the ways to make language learning more enjoyable for the language learners.

The growing advancement of computer technology has altered the way education is being offered nowadays. Through using technology in EFL classrooms, instructors can save time and transfer knowledge to the students more easily and more effectively. The present system of 'chalk and talk' in EFL classes does not allow the educational objectives to be met successfully. Using a simple kind of technology can break this traditional atmosphere and as a result students can learn more easily and efficiently. What the present study addresses is to determine the role of instructors' attitudes as an important stakeholder in the process of pedagogical decision-making. There are quite a few studies in the realm of EFL regarding

the use of educational technology and its implications for the language researchers and teachers. When it comes to EFL, there is a paucity of research and little is known about the role of attitudes in this regard. The findings of the present study can be highly significant from various perspectives.

Problems faced by the university students can at least partially be attributed to the scarce attention paid to the role of new technological advances. According to Butler-Pascoe (1997) the role of computer technology in EFL context has become more and more important as educators recognize its potential to create both independent and collaborative learning environments in which EFL students can acquire and practice their target language. Therefore, the paramount significance of instructional technology cannot be ignored. The use of technology can in fact maximize the quality of instruction and make language learning more effective. As such, attitudes seem to play an important role in implementing technological facilities in language classes.

An understanding of EFL instructors' views towards using technology in language classes can shed light on some of the unresolved problems that are frequently observed in EFL classes. What is of crucial importance is how to integrate technology into

curriculum and utilize it in order to suit the particular dimensions of language instruction more effectively? The study also gains significance as the findings can be of use to curriculum designers and language instructors. On the one hand, curriculum designers can get a better understanding of the barriers which stand in the way of using technology in language classes and make necessary provisions in their planning to overcome the possible obstacles. On the other hand, EFL instructors will be informed about their colleagues' perceptions which might assist them to make necessary modifications in their teaching to enhance the quality of their instruction. These perceptions pave the way for the successful implementation of technology-enhanced instruction in EFL classes.

This study aimed at gaining insights into EFL instructors' perceptions concerning the use of technology in language classes. The role of EFL instructors' gender and teaching experience are also taken into consideration to determine if such factors influence their attitudes.

As such, the study explored the problems and barriers to the implementation of technological instruments to come up with practical suggestions on how these obstacles can be overcome.

The present study seeks to answer the following questions:

- What are the EFL instructors' perceptions towards technology use in language classes?
- Are there any differences between male and female EFL instructors' perceptions concerning technology use?
- Is there any relationship between EFL instructors' perceptions concerning
- Technology use and their teaching experience?
- What are the major obstacles to implementing technology in EFL classes from EFL? Instructors' view?
- How can the obstacles to technology use be overcome from EFL instructors' perspectives?

## LITERATURE REVIEW

Computers have become the most sought-after electronic devices in education. They have captured the interest of the public and it is argued that they have the ability to enhance learning (Abdullah *et al.*, 2006). According to Cox *et al.* (1999) the growth of communication networks will change the image of the classroom for the twenty-first century.

In recent years, the use of computers has played an important role in pupils' learning. The success of any new educational program on computer technology

depends greatly on the support and attitudes of teachers who use them (Woodrow, 1991). For example, if a teacher has a negative attitude toward using computer or technology as a whole in her/his classroom or if s/he believes that a new program cannot work successfully, s/he prefers to continue her/his traditional methods in teaching and the usage of computers or any kind of technology will be limited as a result (Woodrow, 1992).

Due to the changing and increasing demands of current ways of education, there is a great need for a progressive change and redesign of teaching and learning environments and spaces.

According to Ajzen and Fishbein (1977) the use of computers was predicted by the intentions to use them. This is influenced by the beliefs of the users about usefulness, ease of use and primary motivational factors.

In a study conducted by Abdullah *et al.* (2006) the majority of participating instructors who had a positive attitude were found to be enthusiastic towards using technology in classes. The study was both qualitative and quantitative in nature and involved 62 English teachers from 12 schools in a selected district in Malaysia. The findings also revealed intrinsic rewards, such as responsibilities, a sense of self-worth and accomplishments, played an important role in enhancing the positive attitude and motivation.

In a survey study which was done in Turkey, teachers' attitudes towards technology were investigated through using the attitude towards technology scale. Sixty-four science and technology teachers during 2009-2010 participated in the study. Among the participants, 27 teachers were male and 37 teachers were female. It was revealed that science and technology teacher's general attitudes towards technology were in medium level. There was also no difference according to the gender. As for the teaching experience, it was shown that teachers who had worked over 20 years had low points of attitudes in comparison to other teachers (Mihladiz, 2011).

In a quantitative research to investigate Taiwan's EFL student teachers' perception on Internet-assisted language teaching and learning, two classes of senior student teachers taking the EFL courses in a college of languages in Taiwan were investigated during the fall semester of 2007. A questionnaire on student teachers' perception was distributed among the participants. The major finding of the study showed that majority of EFL student teachers had positive experiences and attitudes toward the use of Internet-assisted language instruction and considered technology as an important approach in their future teaching careers. However, almost one fourth of the participating EFL student teachers did not feel confident enough to use technology and they were unsure whether they had the skills and knowledge of technology or not.

Atamturk (2007) found that positive teacher attitude and good computer skills are effective factors toward using technology in ELT. In a study, the attitudes of ELT students towards the Internet in doing homework, their technological literacy and the level their instructors use technological tools in their classes were investigated. The participants were prospective teachers who were studying in an ELT department at the Near East University. This study was conducted with 320 students who were randomly selected. The findings showed that they resorted to the Internet mostly while doing homework, they had good computer skills and they had positive attitudes toward technology. It was also indicated that the prospective teachers, if possible, would try to use technology in their classes in the future.

A study was done in 4 different cities of Iran including Qazvin, Takistan, Abhar and Zanjan during the academic year of 2006-2007. Participants of this study were 200 EFL teachers. The data of this study were analyzed using both descriptive and inferential statistics. It was found that teachers' experience had a negative correlation with their attitude toward technology and also gender as one of the factors did not significantly correlate with attitude (Ghafoori, 2008).

According to Afshari *et al.* (2008) technology creates new chances that lead to great changes in the organization. Technology indicated the new way of distributing information throughout the organization. In addition, computer networking is creating a relationship between teachers and administrator. On the other hand, it offers teachers valuable methods of enhancing successful instructions.

Leh (1995) reported how foreign language instructors at Arizona State University were encouraged and taught to use technology in their teaching. The researcher explained the reasons why technology is helpful for foreign language instruction and described foreign language instructors' attitude toward using technology in their teaching. He also established some workshops to train instructors in the use of educational technologies. Four different questionnaires were distributed among 12 participants before and after workshops. Instructors' attitudes toward using technology and their personal assessments of various technologies were also surveyed. It was revealed that foreign language instructors were not familiar with technology and rarely used it in teaching before the workshops. However, they showed positive attitude toward using technology in language classes.

In a study by Cavanaugh (2009) she investigated elementary teachers' knowledge; attitude and practices

toward technology education were investigated in a study. The result of the study showed that the technology experience had a greatly positive impact on the teachers' technological literacy, their pedagogical knowledge of technology, their confidence in teaching technology and their incorporation of technology strategies in their classrooms.

Several researchers have concluded that positive teacher attitude is indispensable successful implementation of technology (Lawton and Gerschner, 1982; Woodrow, 1992). However, some teachers are not comfortable or skilled enough in the use of the computer and are therefore unable to use this technology to enrich the learning experience. McKenzie (1993) and Stallard (1998) suggested that the major problem is attitudinal. Their study showed that the majority of teachers are afraid of the computer. They are not satisfied with trying to use it in their class presentations. Teachers' attitudes towards technology use and their anxiety in using technology were also investigated in several studies. These studies are particularly important because a teacher's attitude towards computers and related technologies could positively or negatively influence their students' attitudes toward (Sheingold and Hadley, 1990; Bielefeldt, 2001; Bolick *et al.*, 2003; Dexter and Riedel, 2003).

## MATERIALS AND METHODS

**Participants:** Forty male and female language instructors teaching English courses at Islamic Azad University of Rasht and Lahijan (Guilan Province, Iran) participated in this case study during the spring semester of 2010. The participants' teaching experience ranged from 3 to 26 years and they were trained at different colleges and universities. The age and the teaching experience of the participants averaged to 37.5 and 12.8, respectively. The Standard Deviation (SD) of the teaching experience was found to be 5.9. The number of male and female participants were 22 (57.5%) and 18 (42.5%), respectively. The mean age of males and females were 37.3 and 37.8, respectively. In terms of their university degrees, there were 33 MAs and 7 PhDs. As for the major of study, 26 of the participants had majored in Teaching English as a Foreign Language (TEFL). In addition, there were 9 graduates of Literature and 5 graduate of Linguistics.

**Instrument:** A survey was carried out which focused on the EFL instructors' attitudes towards using technology in language classes. To this end, the

Technology Attitude Scale (TAS) was used to collect the relevant data (Appendix). The TAS is an instrument developed as an evaluation measure for foreign language teachers. It consists of twenty items with responses provided on a Likert scale, ranging from 'Not True' to 'Very True'. To complement the findings, the participants were asked to respond to two open-ended questions. These questions aimed at eliciting the respondents' attitudes towards the barriers in the way of implementing technology in EFL classes and the possible solutions to overcome the suggested difficulties.

Concerning the reliability and validity of the TAS, McFarlane *et al.* (1997) conducted a study to determine the reliability of the TAS. The pretest and posttest reliability were found to be 0.92 and 0.85, respectively which was indicative of the high degree of reliability of the questionnaire. They indicated that the TAS is a reliable measure of teachers' attitudes towards technology in general. Their study also found support for the validity of the TAS.

To confirm the reliability of the scale, the present researchers sought to determine the reliability of the questionnaire. Cronbach's  $\alpha$  (alpha) is a statistic which is commonly used as a measure of the internal consistency or reliability of tests or questionnaires. When the items on an instrument are non-dichotomous (continuous), Cronbach's alpha is often used to measure the internal consistency. This is often the case with attitude instruments that use the Likert scale (Cronbach, 1951). Cronbach's alpha was run to determine the reliability of the survey. The reliability coefficient was found to be 0.92. This indicates that the questionnaire is highly reliable and internally consistent.

**Data collection and data analysis procedures:** To collect the relevant data, the questionnaires were distributed during the spring semester of 2010 in person. The respondents were given ample time to go over the items and deliver the completed questionnaires thereafter.

To analyze the collected data, descriptive statistics including mean and standard deviation were used to determine the respondents' overall attitude towards technology use along with their age, gender, major of study and teaching experience.

Independent samples t-test was run to determine if the male and female participants of the study were statistically different in terms of their attitudes towards technology use. One-way Analysis of Variance (ANOVA) was also utilized to check the differences in the attitudes of the participants across three groups based on their teaching experience. The teaching experience of twelve participants is less than ten.

Sixteen participants range from 10 to 15 in terms of their teaching experience and the rest (twelve) have more than 15 years of experience. As such, the three groups are compared in terms of their attitudes towards technology use.

For the qualitative section of the questionnaire (open-ended questions), descriptive statistics is utilized to determine the barriers towards implementing instructional technology and the suggested solutions from the EFL instructors' perspectives.

## RESULTS AND DISCUSSION

**Findings:** In this section, first the findings related to the quantitative section of the survey are detailed. Next, the responses to the open-ended questions are tabulated and explained.

In this part, the responses to the twenty items of the TAS which are of Likert type are analyzed.

Table 1 summarizes the descriptive statistics of the responses to the survey.

The scores obtained through the TAS questionnaire ranges from 20 to 100 with the highest score reflecting a more positive attitude towards technology use. As such, the midpoint is 60 out of one-hundred. As it can be observed from Table 1, both male and females have a positive attitude.

Table 2 also shows the percentage of the responses for male and female participants of the study. It is evident that both male and female respondents have an almost highly positive attitude towards technology use.

As the Table 1 and 2 indicate, the male instructors are found to have a more positive attitude towards technology use. To see if this difference is statistically significant, independent samples t-test was run.

T-tests are often used to compare the means from two different groups of data. They can help us find out if the means obtained from male and female respondents are significantly different from one another or if they are relatively the same.

Levene's Test indicates whether or not an assumption of the t-test has been met. Since the assumption of the equal variability of each group is not met, then a special form of the t-test should be used.

Table 1: Male and female participants' statistics

	N	Mean	S.D.
M	22	87.59	7.65
F	18	83.38	16.11

Table 2: Attitude towards technology use

	Score (out of 80)	Percentage
Males	67.59	84.48
Females	63.28	79.22

Table 3: Independent samples t-test (gender)

Levene's test for equality of variances		T-test for equality of means						
95% Confidence Interval of the Difference								
	F	Sig.	T	Df	Sig. (2-tailed)	S.E. difference	Lower	Upper
Equal variances assumed	4.978	0.032	1.085	38	0.285	3.87456	-3.64162	12.0456
Equal variances not assumed			1.016	23.21	0.320	4.13491	-4.34726	12.7513

Table 4: The result of ANOVA

SS	df	Mean square	F	Sig.	
Between groups	188.879	2	94.440	0.620	0.543
Within groups	5633.521	37	152.257		
Total	5822.400	39			

The significance (p-value) of Levene's test is 0.032. Since this value is less than our assumed  $\alpha$  level (0.05), then the hypothesis that the variability of the two groups is equal is rejected, implying that the variances are unequal. In this case, the bottom row of the output (labeled "Equal variances not assumed.") is to be referred to. Table 3 shows that the significant (2-Tailed) value (0.32) is not less than or equal to 0.05. It can be concluded that there is not a statistically significant difference between male and female respondents of the study.

As for the role of teaching experience, three groups of participants were already distinguished. Twelve participants had less than ten years of experience. Sixteen participants also ranged from 10 to 15 and the rest (twelve) had more than 15 years of teaching experience. The three groups were compared in terms of their attitudes towards technology use.

One-way Analysis of Variance (ANOVA) was run to check the differences in the attitudes of the participants across the aforementioned groups. Table 4 summarizes the result of ANOVA test.

As Table 4 indicates, the significant value (0.543) is higher than the critical level of alpha (0.05). This shows that the three groups are not statistically different from each other. In other words, teaching experience does not seem to influence the participants' perceptions or attitudes towards technology use in an EFL context.

The participants of the study were also asked to enumerate the major barriers or obstacles towards using technology in language classes and the relevant solutions. Descriptive statistics (frequency counts) was used to analyze the collected data.

Table 5 summarizes the descriptive statistics of the participants across three groups of teaching experience.

Concerning the first open-ended question, there were numerous responses which were analyzed qualitatively. Table 6 summarizes the respondents' ideas concerning the obstacles and barriers.

Table 5: Descriptive statistics (teaching experience)

	N	Mean	S.D.	S.E.	Min.	Max.
1	12	83.0833	16.75740	4.83745	37	100
2	16	85.4375	11.33119	2.83280	63	100
3	12	88.6667	7.49949	2.16492	77	98
Total	40	85.7000	12.21852	1.93192	37	100

Group 1: 1-9 / Group 2: 10-15 / Group 3: More than 15

Table 6: Barriers to using instructional technology

	Frequency	Percentage
Lack of adequate technological facilities	29	42.6
Teachers' lack of skills and relevant knowledge	12	17.6
Students' preference of traditional methods and their lack of familiarity with technology use	7	10.2
Inappropriate managerial policies	6	8.8
Teachers' negative attitudes and reluctance to use technology	5	7.3
Language syllabi's being traditional	4	5.8
Lack of technology experts and counselors in academic settings	3	4.4
Principals' lack of acquaintance with technology use	1	1.4
Facilities' being outdated	1	1.4

As it can be observed, the most important obstacle indicated by the respondents is lack of facilities in language classes. Such a problem is at least partly due to financial constraints in developing countries including Iran. Teachers' lack of skills and relevant knowledge and students' preference of traditional methods and their lack of familiarity with technology use are the next two problems respectively. Overall, the problems indicated by the participants of the study can be attributed to three major sources: policy-makers, teachers and students. Policy-makers influence technology use through syllabi, financial designation and their own knowledge of technology use. Students' fixed perceptions and their inflexibility towards the integration of technological advances is another major problem. Teachers' lack of familiarity is also a serious problem that influences technology use in a negative way.

Training teachers, altering the conservative views of authorities and providing the related facilities are the major solutions suggested by the respondents (Table 7).

Table 7: Suggested solutions

	Frequency	Percentage
Training teachers to learn how to use technology	17	29.3
Persuading authorizes to view providing technological facilities as an investment	14	24.1
Equipping classes with facilities	10	17.2
Informing the public about technology use	8	13.7
Changing traditional syllabi to incorporate technology-related tasks	4	6.8
Changing teachers' views towards technology use	3	5.1
Using technology from the beginning levels	2	3.4

**Results:** The present study aimed at gaining insights into EFL instructors' attitudes concerning the use of technology in EFL language classes. Both male and female instructors were found to have an almost highly positive attitude towards technology use. The male instructors were found to have a more positive attitude towards technology use. However, the result of t-test revealed that there was not a statistically significant difference between the male and female participants. One-way ANOVA also showed that teaching experience did not influence the participants' attitudes towards technology use.

In what follows, the research questions are answered in turn:

- What are the EFL instructors' perceptions towards technology use in language classes?

Descriptive statistics was used to determine the respondents' attitude towards technology use. The scores obtained through the TAS ranges from 20 to 100 with the highest score reflecting a more positive attitude towards technology use. As such, the midpoint is 60 out of one-hundred. The mean for the males and females were found to be 87.59 and 83.38, respectively. This implies that both male and females have an almost highly positive attitude towards technology use.

This is in line with numerous studies conducted in various contexts: For example, in several studies, it was found that instructors had positive attitudes towards technology use in classes: Dickey and Kherlopian (1987), Atamturk (2007) and Leh (1995).

- Are there any differences between male and female EFL instructors' perceptions concerning technology use?

The male instructors were found to have a more positive attitude towards technology use. An independent sample t-test was run and the significant (2-Tailed) value (0.32) was found to be higher than

0.05. This reveals no statistically significant difference between the male and female participants of the study.

In Hawkins' (1984) study, it was revealed that females had negative reactions to computer experience compared to their male counterparts. However, Vermette *et al.* (1986) were found no significant differences between male and female instructors in terms of their attitudes.

- Is there any relationship between EFL instructors' perceptions concerning technology use and their teaching experience?

As for the role of teaching experience, three groups of participants were distinguished. Twelve participants had less than ten years of experience. Sixteen participants also ranged from 10 to 15 and the rest (twelve) had more than 15 years of teaching experience. These groups were compared in terms of their attitudes towards technology use. One-way ANOVA showed that the three groups were not statistically different from each other. This finding rejects the role of teaching experience in the attitudes of EFL instructors. This finding confirms that of Mihaladiz (2011) already stated in the literature review section.

- What are the major obstacles to implementing technology in EFL classes from EFL instructors' view

Descriptive statistics (frequency counts) was used to analyze the qualitative data. The most important obstacles indicated by the respondents were lack of facilities in language classes, teachers' lack of skills and relevant knowledge and students' preference of traditional methods and their lack of familiarity with technology use. Other less frequent responses were inappropriate managerial policies, teachers' negative attitudes and reluctance to use technology, language syllabi's being traditional, lack of technology experts and counselors in academic settings, principals' lack of acquaintance with technology use and facilities' being outdated.

- How can the obstacles to technology use be overcome from EFL instructors' perspectives?

The major solutions proposed by the respondents were: training teachers to learn how to use technology, persuading authorizes to view providing technological facilities as an investment, equipping classes with facilities and informing the public about technology use. Other less frequent responses were: changing traditional syllabi to incorporate technology-related

tasks, changing teachers' views towards technology use and using technology from the beginning levels.

This study found support for highly positive attitude of EFL instructors towards technology use in language classes. This finding was found to be consistent with several studies conducted in EFL contexts. This is indicative of the significance of the attitude as a determining factor in designing language syllabi. As such, this positive attitude can serve as an asset to language pedagogy. In fact, such a positive outlook needs to be furnished with relevant facilities in order to maximize learning opportunities. Attitude is considered to be an important variable in any kind of instruction. As such, the instructors' attitude can hinder or facilitate the implementation or use of technology. The finding of the study which reveals the positive attitudes on the part of instructors paves the way for policy-makers to design and prepare more up-to-date syllabi with integration of technological advances.

In this study, the male EFL instructors were found to have a more positive attitude towards technology use. Of course, this difference was not found to be statistically significant. This finding of the present study confirms the finding of Vermette *et al.* (1986) in which gender was not found to be a significant factor. This is in contrast to the study of Hawkins (1984) in which females were found to have more negative attitudes compared to the male participants of the study.

In an EFL context such as Iran, females have possibly more limited access to technological advances and males' slightly more positive preferences might be justified on this ground. However, the use of technology is burgeoning in various countries where English is taught as a second or foreign language. This trend is gaining unprecedented momentum in Iran in recent years and it is expected that all instructors will have access to these enabling tools in their instructional environment. This might undermine the role of gender as a determining factor as a higher degree of accessibility to technological advances can be estimated for both sexes in the near future.

The findings did not give credit to the role of teaching experience as a determining factor in technology use which was similar to the finding of another study (Ghafoori, 2008). Nowadays, technology seems to predominate in all branches of science in general and pedagogy in particular. The gap between various generations is likely to disappear, as access to technology is getting more widespread. This increasing attention paid to technology use can be a key to its potential success in academic settings. The need felt by instructors with varied teaching experience seems to override their teaching experience.

Lack of facilities and teachers' lack of expertise along with the typically traditional students' dyed-in-the-wool perceptions are the major barriers that need to be overcome. If we accept that technology can be of paramount significance in pedagogy, we have to take the prerequisites into consideration. Planning, implementation and evaluation of technology are to be meticulously designed and necessary provisions need to be prepared. Lack of facilities seems to be major barrier in developing countries as the monopoly of developed countries does not allow other countries to have access to egalitarian education. In addition, many teachers are not well-trained and as such they do not well how to implement technology in their classes. Training sessions are in fact required to pave the way for the successful implementation of technology in language classes. Another important factor that should be taken into consideration refers to the views of students. Making use of innovative techniques and procedures might not be welcome first. This means that all students need to be familiarized with the advantages of technology integration.

Informing students about technology use and its tremendous potential should be taken into account along with any instructional package. In addition, training EFL instructors to handle technology use and changing the outlook of authorities to view technological facilities as an investment are other necessary steps that facilitate the implementation of technology in language classes.

In sum, the present study revealed that both male and female instructors had a highly positive attitude towards technology use in language classes. This can be considered as an asset that can help foster the use and implementation of technology in educational settings. In other words, the findings indicate that technological advances are likely to be welcomed by EFL instructors as their willingness paves the way for technology use. The role of teaching experience was not found to be a determining factor in the attitudes of EFL instructors in the present study. This might be due to the widespread use of technological advances and EFL instructors' familiarity with such innovations in education. In other words, even more experienced instructors who might be assumed to resist changes have positive attitudes and like to keep abreast of the recent developments in education. In terms of the obstacles, lack of facilities, teachers' lack of skills and students' preference of traditional methods and their lack of familiarity with technology use were the most important problems for which solutions are to be sought by educational policy-makers. The major solutions offered in the present study were: training teachers to learn how to use technology, persuading authorities to view providing

technological facilities as an investment, equipping classes with facilities and informing the public about technology use.

**Pedagogical implications:** This study has numerous pedagogical implications. One major implication is that EFL instructors have a positive attitude towards technology use in EFL classes. This interest and enthusiasm needs to be strengthened. As such, policy-makers need to take the role of instructional technology more seriously and attempt to foster its use in language classes. In addition, the study showed that inappropriate policies are a major obstacle in the way of implementing technology in EFL classes.

An important implication relates to the attitudes of all stakeholders including teachers, students and policy-makers. In fact, all stakeholders should contribute to facilitate the implementation and use of technology in EFL classes. This implies that the issue is to be viewed from a multidimensional perspective hence giving further credits to various stakeholders. To facilitate the implementation of instructional technology, teachers and students both should be aware of the benefits of technology and its use. Technology is now inseparable from teaching profession and the policy-makers as another group of stakeholders should take the highly influential role of technology into consideration.

Fostering a more dynamic and flexible view towards technology use will yield more fruitful results as indicated by the participants of the present study. Lack of facilities is not the only constraint. This study supports the idea that the attitudes of all those people who plan, implement, use or evaluate technology use can be equally important. From a macro perspective, the use of instructional technology is to be viewed as an integrative component rather than as an add-on facility, which does not contribute to the attainment of educational objectives satisfactorily.

One final word that should be mentioned is that technology is an enabler; it can help instructors improve efficiencies and expand their teaching repertoire. However, the use of technology should be balanced with needs objectives and practicality in a particular educational setting.

## APPENDIX

**Technology Attitude Scale (TAS):** The following questionnaire is administered which aims at discovering EFL instructors' perceptions towards the use of instructional technology. Below is a series of statements. There is no right or wrong answers to these statements. They have been set up in a way which permits you to indicate the extent to which the idea

expressed is true or not true of you. Your anonymity is guaranteed. Thank you for your cooperation.

**Instructions:** Please use the following scale:

- Never or almost never true of me
- Usually not true of me
- Somewhat true of me
- Usually true of me
- Always or almost always true of me

**Never or almost never true of me:** The statement is very rarely true of you.

**Usually not true of me:** The statement is true less than half the time.

**Somewhat true of me:** The statement is true about half the time.

**Usually true of me:** The statement is true more than half the time

**Always or almost always true of me:** The statement is true of you almost always.

**Definition:** Throughout the following questionnaire, by 'technology' we mean using computers, CD-ROMs, the Internet databases and any other similar means in language classes.

Age: .....

Teaching experience: ..... years

Degree: .....

Major: .....

Gender: Male  Female

### PART A: Closed-ended Items:

**Not true ...1...2...3...4...5... Very true:**

1. Knowing how to use technology is a necessary skill for me.
2. I like using technology.
3. I feel confident with my ability to learn about technology.
4. Working with technology makes me nervous
5. I now use my knowledge of technology in many ways as a teacher
6. I like using technology in my work.
7. I wish I could use technology more frequently.
8. Technology makes me feel embarrassed.
9. A job using technology would be very interesting.
10. I don't expect to use technology much at work.
11. I'm not the type to do well with technology.
12. I feel uncomfortable using most technology.
13. Working with technology is boring.
14. Learning about technology is a worthwhile and necessary subject for all prospective teachers.

15. It is important to know how to use technology in order to get a teaching position.
16. I know that if I work hard to learn about technology, I will do well.
17. I am able to do as well working with technology as my fellow teachers.
18. I think using technology will be difficult for me.
19. Technology makes me feel confused.
20. Once I start using technology, I will find it hard to start.

**PART B: Open-ended Items:**

- What are the major barriers or obstacles towards using technology in language classes in your view?
- Can you think of any solutions how such problems can be overcome?
- Any further comments or suggestions?

**REFERENCES**

- Abdullah, N., M.J. Zainol Abidin, W.S. Luan, O. Majid and H. Atan, 2006. The attitude and motivation of English language teachers towards the use of computer. *Malaysian. Online. J. Instruc. Technol. (MOJIT)*, 3(1): 57-67.
- Afshari, M., K.A. Bakar, W.S. Luan, B.A. Samah and F.S. Fooi, 2008. School leadership and information communication technology. *Turkish. Online. J. Edu. Technol. (TOJET)*, 7(4).
- Ajzen, I. and M. Fishbein, 1977. Attitude-behavior relation: A theoretical analysis and review of empirical research. *Psychol. Bull.*, 34(3): 888-918.
- Atamturk, N., 2007. The attitudes of ELT students towards the Internet in doing their homework. Paper Presented at the 7th International Educational Technology (IETC) Conference. Nicosia, Northern Cyprus. (ERIC Document Reproduction Service No. ED 500089)
- Bielefeldt, T., 2001. Technology in teacher education. *J. Comput. Teacher. Edu.*, 17(4): 4-14.
- Bolick, C., M. Berson, C. Coutts and W. Heinecke, 2003. Technology applications in social studies teacher education: A survey of social studies methods faculty. *Contemp. Iss. Technol. Teach. Educ.*, 3(3). Retrieved from: <http://www.citejournal.org/vol13/iss3/socialstudies/article1.cfm>.
- Butler-Pascoe, M.E., 1997. Technology and second language learners: The promise and the challenge ahead. *Am. Language. Rev.*, 1: 20-22.
- Cavanaugh, S., 2009. Elementary teachers' knowledge, attitude and practice toward technology education effects of the 13 project. Ph.D. Thesis, University of Pennsylvania, Indiana. Retrieved from: <https://dspace.lib.iup.edu:8443/dspace/bitstream/2069/169/1/Sandra+Cavanaugh.pdf>.
- Cox, M.J., C. Preston and K. Cox, 1999. What factors support or prevent teachers from using ICT in their classrooms? Paper Presented at the BeRA Conference. Brighton, UK.
- Cronbach, L.J., 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3): 297-334.
- Dexter, S. and E. Riedel, 2003. Why improving preservice teacher educational technology preparation must go beyond the college's walls. *J. Teach. Educ.*, 54(4): 334-346.
- Dickey, E. and R. Kherlopian, 1987. A survey of teachers of mathematics, science and computers on the uses of computers in grades 5-9 classrooms. *Educ. Technol.*, 27: 10-14.
- Ghafoori, M., 2008. ICT and Iranian English Teachers' Attitudes, Skills and Access as Indicator of its Integration in Iran. Retrieved From: <http://www.dailybust.com/ICT-and-Iranian-English-Teachers'-Attitudes,-Skills,-and-Access-as-....html>.
- Hawkins, J., 1984. Computers and girls: Rethinking the issues. New York: Banks Street College of Education, Center for Children and Technology. ERIC ED 249922.
- Lawton, J. and V. Gerschner, 1982. A review of the literature on attitudes towards computers and computerized instruction. *J. Res. Develop. Educ.*, 16(1): 50-55.
- Leh, A., 1995. The reformation in foreign language instruction. Proceedings of the 17th Annual National Convention of the Association for Educational Communications and Technology (AECT). Anaheim, CA.
- McFarlane, T.A., E.R. Hoffman and K.E. Greer, 1997. Teachers' attitudes toward technology: Psychometric evaluation of the technology Attitude survey. Paper Presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- McKenzie, J., 1993. Barriers to new technology. Part one: Staff balkanization-Reprise. *From Now On*, 4(1) [Online]. Retrieved from: <http://www.fno.org/FNOSept93.html> (Assessed on: 15 August 8, 2010).
- Mihladiz, G., 2011. Investigation of science and technology teachers' attitudes towards technology in terms of gender and years of teaching experience. Paper Presented at the 2nd International Conference on New Trends in Education and Their Implications. Antalya-Turkey. Retrieved from: <http://www.iconte.org/FileUpload/ks59689/File/151.pdf>.

- Sheingold, K. and M. Hadley, 1990. *Accomplished Teachers Integrating Computers into Classroom Practice*. Bank Street College of Education, Center for Technology in Education, New York.
- Stallard, C., 1998. Factors that Influence the Integration of Technology into the Secondary Curriculum. Retrieved from: <http://ed.inFo.apple.com/education/techlearn/adapt/adaptfactors.html> (Assessed on: January 15, 2009).
- Vermette, S., R. Orr and M. Hall, 1986. Attitudes of elementary school students and teachers towards computer education. *Educ. Technol.*, 26: 41-46.
- Woodrow, J.E., 1991. Teachers' perceptions of computer needs. *J. Res. Comput. Educ.*, 23(4): 475- 496.
- Woodrow, J.E., 1992. The influence of programming training on the computer literacy and attitudes of preservice teachers. *J. Res. Comput. Educ.*, 25(2): 200-218.