Teacher's Attitudes towards Educational Technology in English Language Institutes

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Abstract

The issue of attitude towards technology is not a new one; it has been around since computers were first placed in the classroom. There appears to be a positive attitude towards technology, so researchers aimed to seek out new information in an effort to find the relationship among teachers' tenure, age, educational level, experience and teachers' attitude toward technology. The purpose of this study was to investigate the attitude towards technology among teachers working in several institutes in Mazandaran. A total of 100 teachers including 38 males and 62 females, ranging in age from 22 to 50 and 20 to 42 respectively completed a survey. The non-parametric Spearman Rank-Order Correlation was used to find the relationship between the variables. The result of the research questions showed that: (1) there was a statistically significant relationship between teacher experience and attitude toward technology, (2) there was a statistically significant relationship between teacher tenure and attitude towards technology, and (3) there was a statistically significant relationship between teacher age and attitude toward technology.

Keywords: attitude, technology, tenure, education levels, age, experience

1. Background

Foreign language teaching and learning turn point on a number of factors such as proper use of educational materials, teachers, students, and administration. Technological developments in every field resulted in the advancement of instructional technology as well. With the developments of educational tools, language teachers and learners try new ways to integrate technology into their teaching and learning processes. Since not many of the technological advancements are effective for language learning and teaching purposes, the students and the instructors need to be selective.

A widespread belief exists among educators, legislators, and community members that filling schools with technology including computers will assist embark upon the digital divide. Thomas (2008) defines digital divide as the division occurring between students attending schools with copious technology funds and students attending schools with partial technology funds. Federal, state, and private organizations have helped underfunded schools purchase needed technology over the last two decades, which helped reduce the students to computer ratios right through the nation (Bakia, Mitchell, & Yang, 2007).

The new era of technology requires both students and teachers to be more motivated to use computers during language learning and teaching process. The teachers need to be skillful in computer usage and also need to possess knowledge of how to integrate technology into English teaching (Li & Ni, 2011). The results of the study indicate that most of the teachers use computers primarily for teacher-centered activities. Another study by Bordbar (2010) argues the importance of the computers in teacher education. Information and communication technologies offer a high number of opportunities for language education and equip students with practice that will lead to a wider progress on a national basis. Kuo (2008) addresses the issue by arguing that although CALL is a popular trend in ELT today, the implementation of CALL is still challenging. Using computers is not a methodology; rather it is a medium that can be integrated into methodological practice.

Although there have been various developments in the technology, use of technological tools in teaching and specifically language teaching is rather underdeveloped due to some problems. The implications of computers

for language learning can be viewed differently by teachers and students. Hence, it would be beneficial to assess and review both the instructors' and the learners' attitudes. Although there are many studies conducted about attitudes towards CALL in different countries, the number of the studies carried out in Iran is very limited. Making use of the available literature would be beneficial for the future research studies as well. In the present study the aim is to investigate teachers' attitude toward educational technology in language institutes in Mazandaran.

According to Atkins & Vasu (2000), teachers' attitudes or concerns have a significant influence on the use of computers in the classroom. Additionally, Sharpe (2004) and Tsitouridou & Vryzas (2004) hold that teachers view technology adoption as an important strategy for developing education. However, change is slow and messages are mixed. Zhao, Tan, & Mishra (2001) state that educational technology has long focused on assisting teachers, not learners. In fact, they posit that teachers are taught that technology is a tool to help teachers teach, which focuses more on transmitting and communicating messages through presentation software rather than allowing learners to construct knowledge. Redmond, Albion, and Maroulis (2005) also report that teachers' personal backgrounds such as personal confidence, interests in using ICT and willingness to try something different are significant factors that might promote ICT integration in the classroom.

2. Statement of the Problem

Early in attitude study, researchers evaluated aspects such as teachers' age and experience as indicators of attitudes towards technology. Now, some trends remain which appear to have an influence on teachers' attitudes. For instance, tenure is still a strong indicator of teachers' positive attitudes toward technology. A new trend has also emerged in which a teachers' educational level is also correlated with his attitudes toward technology (Kay, 1993; Loyd, 1984; Pelgrum, 1991). Teachers with fewer than three years' experience and teachers new to a school tend to use technology with their students less than their more experienced colleagues (Russell, 2007).

Technology has never been more available in classrooms in Iran than it is right now. However, positive results in using technology in the classroom can only be realized if a teacher is willing to learn, to experiment and to use the technology in the classroom. Martin, Strother, Beglau, Bates, Reitzes, & Culp (2010) found the greater a teacher's dedication to technology, the higher the quality of lesson plans and the higher the achievement of their students. Yet, some teachers are hesitant to use the available technology (Russell, O'Dwyer, Bebell, & Tao, 2007). Be deficient in time, apprehension in personal impact, lack of support from administration and need of training and technical support are all reasons expressed by teachers as to why technology is not used more in their classrooms (Benson, Farnsworth, Bahr, Lewis, & Shaha, 2004; Donovan, Hartley, & Strudler, 2007). In addition to the reasons that teachers readily give, use of technology in the classroom is determined in large part by the teacher's attitude toward technology (Kumar, Rose, & D'Silva, 2008).

Generally, teachers who perceive learning as the accumulation of information are more likely to view teaching as the transfer of information. In contrast, teachers who view learning as conceptual change are more likely to consider teaching as facilitating conceptual change (Prosser & Trigwell, 1999). Surface learning approaches focus on memorizing aspects of the content in isolation with the intention of recalling the content in assessment situations. There is little intention to seek meaning in the content and little likelihood of significant conceptual change (Ramsden, 1988). Rakes and Casey (2000) also state that teachers must be comfortable with technology and have positive attitudes toward technology integration to improve students' achievement. This qualitative study included an examination of teachers' attitude toward technology in classrooms and correlated the data with teacher tenure, age, educational level and experience.

3. Purpose of the Study

Technology in general has changed the educational landscape, providing some solutions and creating new problems to solve (Zhang, 1998). Thus, researching teachers' attitudes toward technology in general and in education specifically is unimportant endeavor, providing insight and direction for all educational stakeholders. In fact, Wenzlaff (1998) posits that teachers' attitudes are among a handful of factors that determine the formal and informal curriculum in the classroom. Further, if teachers do not confront these attitudes and beliefs, they remain steadfast even when change abounds.

The research is beginning to show that success requires understanding the relationship between variables which considered teachers' attitude toward technology (Honey, Culp, & Carrigg, 2000). This understanding is currently incomplete. To further understanding, the study investigated the relationship between the population of 100 teachers' age, experience, educational level and tenure, and their attitude toward technology in this cross sectional survey. All teachers in this descriptive study are working in language institutes in Mazandaran province and the questionnaires provided for them collected during a short period of time by the researchers. The

researchers raised the following research questions to achieve the purpose of the study:

RQ1. Is there any statistically significant relationship between teacher experience and attitude toward technology?

RQ2. Is there any statistically significant relationship between teacher tenure and attitude toward technology?

RQ3. Is there any statistically significant relationship between teacher age and attitude toward technology?

4. Methodology

4.1 Research Design

Using correlational research was an appropriate design; this method is used when researchers attempt to explain the association between or among variables (Thompson, 2005). This study was an exploratory study as opposed to a predictive study. The study examined possible relationships between several independent variables (age, experience level, tenure, and education level) and attitudes toward technology. No attempt was made at calculating what types of teachers use technology in their classrooms. If a relationship exists between the variables, future studies might attempt to create a predictive model. A predictive model was beyond the scope of this study. Using a survey to collect data for the study was also an appropriate design. Neuman (2006) maintains that surveys are appropriate when asking questions about attitudes, beliefs, or behaviors. Surveys are also used when measuring multiple variables or testing multiple hypotheses (Neuman, 2006). The extensive number of variables made survey data collection an appropriate method. An examination of data revealed trends in attitude toward technology in teachers of several institutes in Mazandaran, correlated to the mentioned independent variables.

4.2 Participants

The target population of this study included 100 teachers who were teaching in eight language institutes in Mazandaran, Iran; 35 teachers from two language institutes in Qaemshahr, 15 teachers from two institutes in Babol, 23 teachers from two institutes in Sari, 13 teachers from one institute in Joybar and 14 teachers from one institute in Babolsar participated in this study. There were 38 males and 62 females, ranging in age from 22 to 50 and 20 to 42, respectively. Both B. A. and M. A. holders in TEFL from language institutes were among the participants; three of the male participants were Ph.D. students. Males had the experience range from 1 to 15 and females had the experience range of 1 to 11 years in English language teaching.

4.3 Instrumentation

Since this study was related to English language teachers, no test of language proficiency was used. The teacher survey consisted of 61 items. The items consisted of teachers' attitude toward technology and use of technology. The survey has 3 parts; the first part was demographic questions, the second part was technology integration and the last part was teachers' attitude toward technology. The questionnaire showed a reliability coefficient of 0.86. Questions drawn from the Technology Attitude Survey were used with no modification. In this survey, the researchers used the term "technology" to refer to computers or computer-related devices such as Smart Boards, overhead projector, VCR, TV monitor, etc.

4.4 Data Analysis

The instrument for the current study consisted of 61 items. The items were demographic questions that included the independent variables of age, educational level, years of teaching experience and tenure. These questions measured the participants' attitude toward technology. The questions had Likert-type responses ranging from one to seven, in which one indicated the statement was "very untrue" for the participant and seven indicated the statement was "very true" for the participant. After cleaning and coding the data in Excel, results for the independent variables of age, experience, and education were exported to an SPSS file. Descriptive statistics organized and summarized the data. The frequency, percent, and mean values were calculated for the independent variables of age, years of experience, educational level and tenure. These statistics were calculated for the summed attitude statements. The non-parametric Spearman Rank-Order Correlation was used to find the relationship of technology attitudes among teachers in relation to their age, education level, tenure and years of experience. The non-parametric the Eta test of association was used to find the relationship between teachers' education levels and attitude towards technology. All statistical tests were run using the Statistical Package for Social Sciences (SPSS 21).

5. Results

5.1 Demographic Information of the Participants

Since this study was related to English language teachers, no test of language proficiency was used. The demographic information of the teachers who participated in the study is displayed in the following table.

Table 1. The demographic information of the English teacher participants

	N	Education	Age	Experience	Location
Male	38	B.A., M.A., Ph.D.	22 to 50	1 to 15	Language Institute
Female	62	B.A. and M.A.	20 to 42	1 to 11	Language Institute

Table 1 shows the demographic information of the participants. There were 38 males and 62 females, ranging in age from 22 to 50 and 20 to 42, respectively. Both B.A. and M.A. holders in TEFL from different language institutes were among the participants; three of the male participants were Ph.D. students. Males had the experience range from 1 to 15 and females had the experience range of 1 to 11 years in English language teaching.

5.2 Analysis of the First Research Question

With regards to the first research question, "Is there any statistically significant relationship between teacher experience and attitude toward technology?" in order to run an appropriate test for the correlation between two variables, the researchers had to meet one assumption; normality of data distribution. Table 2 below shows the normality test for the two sets of scores.

Table 2. Test of normality for teacher experience and attitude towards technology

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experience	.215	100	.000	.812	100	.000
Attitude	.119	100	.001	.947	100	.001

As it can be seen in table 2 above (result of Shapiro-Wilk), the data are not normally distributed for the two sets of pretest scores (p<.05). Therefore, the non-parametric Spearman Rank-Order Correlation was used to find the relationship. Table 4 below shows the descriptive statistics for the two variables.

Table 3. The descriptive statistics for the teacher experience and attitude towards technology

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Experience	100	1.00	15.00	3.8100	3.04078	9.246
Attitude	100	60.00	125.00	91.5800	17.06741	291.297
Valid N (listwise)	100					

The means and the standard deviations of the experience and attitude are 3.81, 3.04 and 91.58, 17.06 respectively. The result of the inferential test is presented below.

Table 4. Spearman rank-order correlation test for the teacher experience and attitude towards technology

			Experience	Attitude
Spearman's rho	Experience	Correlation Coefficient	1.000	.721**
		Sig. (2-tailed)	.	.000
		N	100	100
	Attitude	Correlation Coefficient	.721**	1.000
		Sig. (2-tailed)	.000	.
		N	100	100

Note. **. Correlation is significant at the 0.01 level (2-tailed).

The Spearman Rank-Order Correlation was run to determine the relationship between Iranian EFL teachers' experience and attitude. There was a strong, positive correlation between these two variables, which was also statistically significant (rs=.721, p<.05). Thus, the null-hypothesis that there is no statistically significant relationship between teacher experience and attitude toward technology was rejected.

5.3 Analysis of the Second Research Question

With regards to the second research question, "Is there any statistically significant relationship between teacher tenure and attitude toward technology?", In order to run an appropriate test for the correlation between two variables, the researchers had to meet one assumption; normality of data distribution. Table 5 below shows the normality test for the two sets of scores.

Table 5. Test of normality for the teacher tenure and attitude towards technology

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Tenure	.222	100	.000	.758	100	.000
Attitude	.119	100	.001	.947	100	.001

As it can be seen in table 5 above (result of Shapiro-Wilk), the data are not normally distributed for the two sets of pretest scores (p<.05). Therefore, the non-parametric Spearman Rank-Order Correlation was used to find the relationship. Table 6 below shows the descriptive statistics for the two variables.

Table 6. The descriptive statistics for the teacher tenure and attitude towards technology

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Tenure	100	1.00	12.00	2.8600	2.42470	5.879
Attitude	100	60.00	125.00	91.5800	17.06741	291.297
Valid N (listwise)	100					

The means and the standard deviations of the tenure and attitude are 2.86, 2.42 and 91.58, 17.06 respectively. The result of the inferential test is presented below.

Table 7. Spearman rank-order correlation test for the teacher tenure and attitude towards technology

			Tenure	Attitude
Spearman's rho	Tenure	Correlation Coefficient	1.000	.602**
		Sig. (2-tailed)	.	.000
		N	100	100
	Attitude	Correlation Coefficient	.602**	1.000
		Sig. (2-tailed)	.000	.
		N	100	100

The Spearman Correlation was run to determine the relationship between Iranian EFL teachers' tenure and attitude. There was a positive correlation between these two variables, which was also statistically significant (r=.602, p<.05). Thus, the null-hypothesis that there is no statistically significant relationship between teacher tenure and attitude towards technology was rejected.

6. Analysis of the Third Research Question

With regards to the third research question, "Is there any statistically significant relationship between teacher age and attitude toward technology?" in order to run an appropriate test for the correlation between two variables, the researchers had to meet one assumption; normality of data distribution. Table 8 below shows the normality test for the two sets of scores.

Table 8. Test of normality for the teacher age and attitude towards technology

| | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
	Statistic	df	Sig.	Statistic	df	Sig.
Age	.112	100	.004	.942	100	.000
Attitude	.119	100	.001	.947	100	.001

As it can be seen in table 4.8 above (result of Shapiro-Wilk), the data are not normally distributed for the two sets of pretest scores (p<.05). Therefore, the non-parametric Spearman Rank-Order Correlation was used to find the relationship. Table 9 below shows the descriptive statistics for the two variables.

Table 9. The descriptive statistics for the teacher age and attitude towards technology

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Age	100	20.00	50.00	28.4300	6.22354	38.732
Attitude	100	60.00	125.00	91.5800	17.06741	291.297
Valid N (listwise)	100					

The means and the standard deviations of the age and attitude are 28.43, 6.22 and 91.58, 17.06 respectively. The result of the inferential test is presented below.

Table 10. Spearman rank-order correlation test for the teacher age and attitude towards technology

			Age	Attitude
Spearman's rho	Age	Correlation Coefficient	1.000	.738**
		Sig. (2-tailed)	.	.000
		N	100	100
	Attitude	Correlation Coefficient	.738**	1.000
		Sig. (2-tailed)	.000	.
		N	100	100

The Spearman Rank-Order Correlation was run to determine the relationship between Iranian EFL teachers' age and attitude toward technology. There was a positive correlation between these two variables, which was also statistically significant (rs = .738, p<.05). Thus, the null-hypothesis that there is no statistically significant relationship between teacher age and attitude toward technology was rejected.

7. Discussion

This quantitative, correlational study examined the teachers' attitude toward educational technology in Mazandaran. The theoretical framework proposed that attitude toward technology can play an integral part in a teacher's decision to use technology. First and second order barriers, such as learning climate, lack of hardware or software, lack of training or motivation, and intrinsic beliefs can also affect technology integration. Generally, the findings related to the research questions suggested that teachers showed positive attitudes towards technology in education which is in line with findings of studies done by Aksan & Eryilmaz (2011), Yalcin, Kahraman, & Yilmaz (2011), Dogruer, Eyyam, & Menevis (2010), Ozdamlı, Hursen, & Ozcinar (2009), Kabadayi (2006), Zanguyi (2011), and Rostami (2010).

Teachers in several institutes were surveyed about their technology attitude. An analysis of the data uncovered the facts that teachers at different levels of experience, different age and tenure and different education levels had technology attitude in significantly different amounts. The amount of time a teacher has been at an institute had no bearing on how much that teacher integrated technology. Teachers from all levels of experience had a positive attitude toward technology. The main point is that a teacher's attitude toward technology is not the main reason he or she decides to integrate technology. Leaders need to explore other barriers that might be causing a lack of technology attitude.

Although technology has proved to be a useful tool in motivating the students and helping them in the process of language learning, teachers and students still hesitate to widely use it in classroom setting (Maftoon, Hamidi, & Sarem, 2012). Teachers should play more important roles in the implementation of ICT (Information and Communication Technology) into schools and their attitudes have proved to be significant predictors of

technology use in other words, teacher' attitude towards the use of ICT for educational purposes is one key factor for the success of the ICT utilization in schools. In this study, the attitude of teachers towards technology was found to be significantly correlated to the experience, age, and tenure. Researchers from different parts of the world believe that the use of ICT tools for educational purposes depends upon the attitudes of teachers toward the technology (Albirini, 2004; Hamidi et al., 2014; Teo, 2008). In line with this claim, Summers (1990) believes that teachers' existing attitudes, skills, and working habits will have great influence on their acceptance, style of implementation, and outcome of using computers for teaching.

The findings of this study indicated that the teachers' attitudes levels towards technology had a direct relationship with the education level but it was not statistically meaningful. In other words, the correlation findings revealed that there was positive correlation between teachers' degree and their attitudes levels. A similar finding was reported by Albirini (2004) and Isleem (2003). Results of their research indicate that there is a significant relationship between users' attitudes towards computers and their education level.

Recommendations to leaders and teachers gave suggestions on how to employ the results to help enhance the attitude of teachers toward technology in the classroom. The problem considering technology is not a new-fangled one; it has been around since computers were first placed in the classroom. There appears to be little progress in issues related to attitude toward technology, so researchers must continue to search for recent information in an effort to uncover the underlying grounds of the predicament.

This qualitative, correlational study examined the relationship between tenure, age, educational level and experience of teachers to their attitude toward technology in several institutes in Mazandaran. The theoretical framework proposed that attitude and self-efficacy toward technology play an integral part in a teacher's decision to use technology. First and second order barriers, such as school climate, lack of hardware or software, lack of training or motivation, and intrinsic beliefs can also affect teachers' attitude toward technology. Teachers who are teaching in some institutes were surveyed about their technology attitude. Teachers from all levels of experience had a positive attitude toward technology. The main point to take away from the results is that a teacher's attitude toward technology is closely linked to age, tenure, educational level and experience of the teachers. Leaders need to explore other barriers that might be causing a lack of technology attitude.

8. Pedagogical Implications

The results of this study showed that technology attitude of teachers in some institutes in Mazandaran are significantly related to the experience level of teachers, age of teachers, and tenure of teachers. The results also showed a positive correlation between technology integration and attitude teachers has been teaching at particular institutes. School district leaders, school leaders and technology leaders should be inspired that the teachers in these institutes have such a positive attitude toward technology. Steps should be taken to ensure that positive attitude is used to help increase technology integration. Leaders in all areas should examine the classrooms for the proper type and amount of technology needed so students have more opportunities to use technology.

Some descriptions of volunteer in this study indicated that the reason we are not interested in technology is not because we do not know how to use it or do not want to use it because we do not have any technology to use in our class. Some teachers also stated that they have taught for some years, and they never had a computer in their classroom; however, they would love to incorporate it. They do not have scanners, printers, computers, or even smart boards. They know and love smart boards but due to the institutes they were not allowed to implement them.

Again, today most people are familiar and can incorporate technology in the classrooms if only it is available. This comment by the teachers could mean that the assumption that the institutes all have similar amounts of technology to them is faulty. Technology managers should try to ensure that the available technology is what their teachers require. Additionally, leaders should examine the culture of their school in an attempt to find peer mentors and trainees to work with young teachers and with teachers who are new to teaching. If the teachers have role models who are high technology integrators, they might be encouraged to use technology more often with their students and it would increase the attitudes of both teachers and students. Moreover, education leaders must also ensure that teachers develop strong beliefs about the need for technology integration. Perceived usefulness is a strong predictor for technology integration (Davis, 1989; Sun & Zhang, 2006). Only with strong, supportive, transformational leaders can lasting modification take effect.

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