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Pre-Service ELT Teachers' Attitudes Towards Computer Use: A Turkish Survey

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Abstract

Problem Statement: Computer technology plays a crucial role in foreign/second language (L2) instruction, and as such, L2 teachers display different attitudes towards the use of computers in their teaching activities. It is important to know what attitudes these teachers hold towards the use of computers and whether they have these varying attitudes based on factors such as age, gender, subject domain, and computer education.

Purpose of Study: This study aims to discover the attitudes of pre-service Turkish teacher's towards computer use.

Methods: A survey was administered to 95 ELT, Linguistics, Literature, Translation, and Interpretation students at Hacettepe, Gazi, and Middle East Technical state universities. Participants were assessed for their computer attitudes using a Likert type questionnaire with four factors: affective components, perceived usefulness component, perceived control component, and behavioral intention component.

Findings and Results: The results revealed that the participants of the study had a high overall attitude towards computer use, and also showed that affective components had a positive significant correlation with behavioral intention, but a significant negative correlation with perceived usefulness. Put differently, the more the students' feelings towards computer use increased, the more intensively their beliefs about the usefulness of computers in their job decreased. In addition, it was found that perceived usefulness was negatively correlated to behavioral intention. There was not any significant gender difference. Furthermore, computer courses had no effect on one's attitude towards computers, whereas the participants' age and subject domain had a significant effect on their attitude towards computer. In the study it was found that students in the age group 20-24

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had more intensive behavioral intention and high overall attitude towards computer use. ELT students in comparison to other subject domains possessed strong beliefs about the usefulness of computers in their job. Translation and interpretation students in comparison to other subject domains were more interested in computers, had a more intensive behavioral intention, as well as higher overall attitudes towards computer use.

Conclusions and Recommendations: In the current study, it was found that pre-service teachers were intensively interested in computers but their belief about using computers as an educational tool as part of their job was rather poor. Educational centers have to be aware that if teachers don't have enough internal interest towards computer use, it will not work in the classroom. The most important thing that educational centers need to focus on is the integration and internalization computer use as an educational tool.

Keywords: teacher's attitude, foreign language learning, computer use, technology

Over the last two decades the importance of Information and Communication Technologies (ICT) has witnessed worldwide growth. The global adoption of ICT into education has often been premised on the potential of new technological tools revolutionizing outdated educational systems, better preparing students for the information age, and accelerating national development efforts. Nowadays, knowledge of computer use, in educational setting, has been labeled both as a social and a global need. ICT and Computer use (CU) have brought a great deal of benefits for both teachers and learners in educational settings.

Language teachers need to be aware of the impact of ICT and CU in facilitating their teaching and their students' learning needs. As a result, one of the most important aspects of language teachers in the educational setting is to become familiar with ICT or CU, which equips them with the techniques and strategies for using computers in their classrooms. In Johnson's (1999) study, it is noted that students' success to learning via the use of computers largely depends on their teacher's attitude, beliefs, and their knowledge of the use of technology in the classroom. Put differently, the way teachers think about and use computers in their classrooms has a great effect on their learner's success in computer use and foreign language learning. Teo (2006) states that a teachers' attitude and willingness to embrace technology has a great effect on students' success in learning with computers and technology in the classroom. In addition, as Teo (2008) notes, "gaining an appreciation of the teachers' attitudes toward computer use may provide useful insights into technology integration and acceptance and usage of technology in teaching and learning" (p.413). Teo (2006, 2008) also states that a teachers' role in CU, among educational technology users, is the most important. Teachers act as drivers in the effective integration of technology, both for teaching and learning in educational settings.

Teachers' Attitudes and Beliefs About the Use of Computers

For many decades, researchers have been interested to understand how users' attitudes and beliefs affect their technology usage behavior (e.g., Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Dishaw & Strong, 1998; Taylor & Todd, 1995; and Venkatesh & Davis, 2000). Attitudes toward computers influence teachers' acceptance of the usefulness of technology, and also influence whether teachers approach these resources and integrate them into their classroom (Clark, 2000 and Akbaba & Kurubacak, 1998). Belief about the relevance of a particular computer technology resource is also a key factor in determining whether teachers will utilize that resource or not. To support the idea, Huang & Liaw (2005) noted that among the factors that affect the successful use of computers in the classroom, the attitude and beliefs of teachers about computers are at the top of the list.

Many teachers fail to use technology not because they are techno-phobic, but because they cannot understand how technology can be utilized in their teaching practices or they have doubts about the usefulness of technology (Lam, 2000). Morton (1994, as cited in Morton, 1996) found that one major factor that prevents teachers from integrating computer technology into their classrooms was lack of knowledge of how it can promote learning. Teachers not only need to have the knowledge of computer technology, but also the knowledge of how to use the computers in educational settings. To integrate computer technology into the teaching and learning process in educational settings, teachers should be familiar with its relationship to learning. Dusick (1998) notes that knowledge about the usefulness of computer technology is a key factor for integration. In other words, teachers need to be familiar with how computer technology can be useful in classrooms in order to use it as a tool to promote learning, which will allow students to benefit from the use of this technology.

Some teachers believe that technology use does all the work and answers every question. Ely (1990) states that teachers should change their beliefs about how technology is used in improving learning and teaching. They should not expect technology to do all the work and answer all the questions, but instead should learn to see technology resources as tools that they can manipulate to create opportunities for a better learning and teaching environment. No one can dispute or disagree, of course, that the use of technology and computers has importance in the educational setting and language classrooms. The great majority of educators and educational settings have decreed that the rise of technology in the classroom is no less than a paradigm shift. Recent studies, including Gündüz (2005) and Shanbarger & Joseph (2005), reveal that ICU and CU are "highly motivating, convenient to use, and task oriented" for "both foreign language teachers and learners." In other words, computer use is, indeed, a very powerful tool in language classrooms which brings a new sense of "interactivity" to the learning experience and enables students to be more creative and motivated. Nevertheless, it should be kept in mind that computer or technology use, in essence, is still nothing more than a tool.

It should also be kept in mind that CU and ICT does not refer only to the use of computers by language teachers to type out a worksheet or a class list or prepare his or her own teaching materials alone. The use of the technology or CU goes beyond this scope. It refers to the use of technology both by students and teachers in facilitating the teaching and learning process. As Davies (2006; cited in Berns 2010) states, computers have a significant role in language education. It is particularly useful in testing the knowledge of basic grammar, vocabulary, reading, writing, and listening skills. It is also stated that the use of computers in language classrooms play a significant role in improving language learners' communication skills.

As mentioned, teachers, in addition to having the knowledge of computer technology, essentially need must also have knowledge of how to use computers and the knowledge of integrating the technology in language classrooms. One way of doing so is to improve teachers' attitudes towards word-processing programs. Using different programs for different activities can draw their learner's attention to computer use in language classrooms leading lead to better second language learning; examples including using the 'thesaurus' tool of the program for vocabulary buildup activities (Gardner, 1997; Huntley, 1997); having pairs of students revise and edit each other's' written work on computers in the lab (Flowerdew & Lam, 1997); using e-mail to exchange information (Thornton, 1997); and assigning partner classes with overseas schools in which students learn to write for communicative purposes (Wong, 1997).

However, in order to enable such positive developments, simply developing teachers' knowledge on software or hardware may not be enough. Teo (2009) asserts that stable progress over time is only possible if, "school administrators implement strategies that ensure effective successful experiences for teachers in the use of technology" (p.3010). In developing his model, Teo (2010) also claims that the perceived ease of use plays a crucial role in developing positive attitudes, and thus, developing skills. This requires the implementation of user-friendly, less complex technological tools which will eventually build confidence and lead to a more positive attitude. In addition to Teo's studies, Hismanoglu (2012) also considers the practical aspects of computer use and points to certain factors which may enhance the quality of the overall process, including more time allocation for the use of foreign language teaching ICT tools, increasing the number of computers, and developing ICT specific technical and pedagogical knowledge and training.

Attitude constitutes various dimensions. Some examples of these are perceived usefulness, computer confidence (Davis, 1989; Rovai & Childress, 2002), training (Tsitouridou & Vryzas, 2003), gender (Sadik, 2006), knowledge about computers (Yuen, Law & Chan, 1999), anxiety, confidence, and appeal (Yildirim, 2000). Davis (1989) and Davies (2006), in addition to perceived usefulness, address the perceived ease of technology use as the another fundamental variable for determining user acceptance - the issue of how users accept and use a technology. Variables such as affective components and behavioral intentions are also other factors that influence teachers' attitude and beliefs about ICT/TU.

Teachers' opinions, which have a great effect on their students' knowledge and success in learning by the use of computers, as well as their learners' attitude toward ICT/TU, are the central significant figures in educational settings. With greater

interests shown by many education systems to enhance and transform teaching and learning in most parts of the world, increasing attention is being given to understanding what drives teacher's intention to use technology, in addition to the increasing recognition of the pivotal role that teachers play in ensuring the effective integration of technology in education. This article will study pre-service teachers' attitudes toward computer use. To measure the components affecting teacher attitude, perceived usefulness, perceived control, and behavioral intention will be examined.

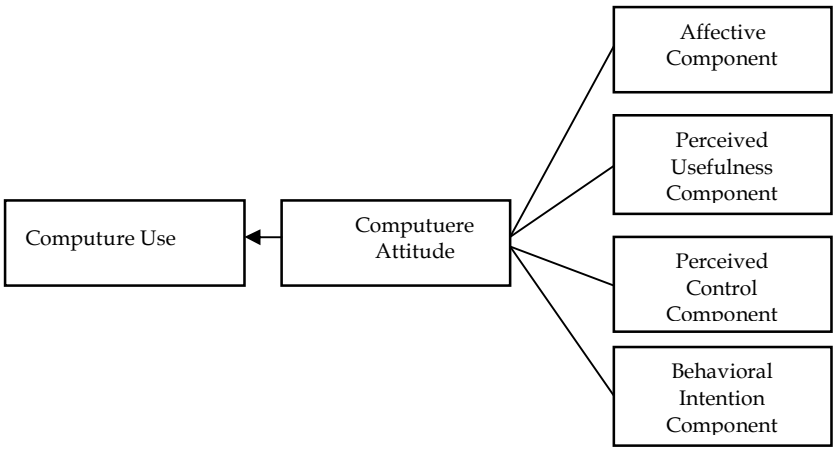


Figure 1: *Computer Attitude Model(CA), developed by Selwyn (1997)*

Findings of Other Related Studies

Different studies have been conducted in the past to study the attitudes of teachers relating to technology use. Kemp (2002) argues that teachers who spend more time in professional development were found to have a more positive attitude toward technologies. Another study in Turkey, by Aydogdu (2001), investigated the level of educational technology use in teaching English among language instructors across eight state universities. The results revealed that teachers who have undergone professional training used educational technology resources in language instruction more than those who have not. The study highlights the need for pre-service and in-service educational technology training programs for ELT teachers. Cobb (1999) looked at whether using corpus tools and studying words from concordance lists helped learners of EAP in an English as a Foreign Language (EFL) environment to build up their vocabulary knowledge. In the study, Cobb questioned whether, "computerized concordances can help students acquire the immense vocabulary needed in the short time available for their language instruction" (p.345). Cobb argues that the results of the study indicate that the corpus-based study of words helps learners to acquire lexical knowledge because they study the words in a rich context and can retain words and transfer their knowledge into other contexts.

Dexter, Anderson, and Becker (1999) in a study of 47 teachers from 20 K-12 schools in the US examined the use of computers by teachers and their perception of the impact of computers on their classroom practice and concluded that using computers in the classroom in a teacher/learner-centered way is the teacher's decision. They, moreover, argue that teachers must have opportunities to work with computers and technology resources, models of how these resources and tools can be used in instruction, and opportunities to reflect on the role of the computer in the learning process. Teachers must be provided with opportunities to construct their own knowledge about educational technology.

Method

The aim of the study was is to examine the profile of a sample of pre-service teachers in Turkey. It specifically aims to examine pre-service teachers' attitude toward computer use in English as a foreign language classrooms. It also aims to compare ELT pre-service teachers' attitudes to other courses. To achieve the aims of the study, the following questions will be answered:

1. How does each sub-attitude towards the use of computers affect students' overall attitude towards computer use?
2. Do personal variables such as age, gender, subject domain, and computer education have any effect on teachers' attitudes towards computer use?
3. Is there any difference between educational types in relation to attitudes towards computer use?

Participants

The participants in this study were 95 pre-service teachers from Middle East University, Gazi University, and Hacettepe University in Turkey. All participants were freshman undergraduate students. Among the 95 subjects who participated in the study, 36 were enrolled in ELT, 21 in Literature, 8 in Linguistics, 9 in Translation, and 21 were enrolled in other social science. There were 13 male and 82 female participants.

Research Instruments

The instrument used in the study was a questionnaire which consisted of two parts. The first part, developed by the researcher, referred to participants' demographic information, including their education in computers, age, gender, and graduation (subject domain). The second part dealt with the Computer Attitude Scale (CAS) developed by Selwyn (1997). Education in computers was measured by asking the participants "Have you taken a computer course in the past?

As represented in table 1, there were 21 items in the Computer Attitude Scale that in general measured the participants' attitudes towards computer use. The first component refers to 'Affect,' which is composed of six items and measures individual feelings towards computers. The second component is 'Perceived Usefulness,' which is composed of five items that measure the individual's beliefs about the usefulness of computers in their job. 'Perceived Control' is the third component and involves six items measuring the perceived easiness or difficulty of using computers. The last component is 'Behavioral Intention,' which examines four items measuring participants' intentions and actions with respect to computers.

Participants responded to the CAS using a five-point scale of strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). In this study, negatively

worded items were reversed. The CAS has been found to be a reliable instrument measuring attitudes towards computers among teachers, educators, and students. In using the CAS on 131 undergraduate students studying early childhood education, Sexton, King, Aldridge, and Goodstadt-Killoran (1999) reported that the CAS possessed high reliability (alpha = 0.90)(cited in Teo, 2006).

Table 1

Items in the Computer Attitude Scale

Affective Component	AFF_1	If given the opportunity to use a computer, I was afraid that I might damage it in some way.*
	AFF_2	I hesitate to use a computer for fear of making mistakes I can't correct.*
	AFF_3	I don't feel apprehensive about using a computer.
	AFF_4	Computers make me feel uncomfortable.*
	AFF_5	Using a computer does not scare me at all.
	AFF_6	I hesitate to use a computer in case I look stupid.*
Perceived Usefulness component	PU_1	Computers help me improve my work better.
	PU_2	Computers make it possible to work more productively.
	PU_3	Computers allow me to do more interesting and imaginative work.
	PU_4	Most things that a computer can be used for I can do just as well myself.*
	PU_5	Computers can enhance the presentation of my work to a degree which justifies the extra work.
Perceived Control Component	PC_1	I can probably teach myself most of the things I need to know about computers.
	PC_2	I can make the computer do what I want it to.
	PC_3	If I get problems using the computer, I usually know how to solve them one-way or another.
	PC_4	I am not in complete control when I use a computer.*
	PC_5	I need an experienced person nearby when I use a computer.
	PC_6	I do not need someone to tell me the best way to use a computer.
Behavioral Intention Component	BI_1	I would avoid taking a job if I know it involved working with computers.*
	BI_2	I avoid coming into contact with computers at school.*
	BI_3	I only use computers at school when I am told to.*
	BI_4	I will use computers regularly throughout school.

* Items for which scoring is reversed.

Procedure

Data collection was conducted in regular classes during the second semester with the assistance of 95 students from three universities; Gazi University, Middle East Technical University, and Hacettepe University. Before the questionnaire was given, the students were informed about the aims and purposes, as well as necessities, of the present study. They were reminded that the information collected through this questionnaire will be used only for research purposes and it will not affect their course grades by any means. In addition, to decrease their level of anxiety and stress, the students were not asked to write their names on the feedback forms.

The researcher and the instructors distributed the questionnaire to the students during class activities, and this made it feasible to receive completed responses from all of the participants. After examining the completed copies of the questionnaire, usable copies were coded for statistical analysis.

Results

In order to determine the appropriate statistic tests to analyze the gathered data, there was first the need to assess the distribution of the variables in terms of its normal distribution. To do so, *Exploratory Data Analysis (EDA)* and the *Kolmogorov-Smirnov Test* were used in order to reveal possible errors in the data, reveal features of the data set, e.g. skew, scatter, to test for a normal distribution, and to determine whether parametric or non-parametric tests should be used. According to the information represented in Table 2, it was observed that except behavioral intention (BI), other variables all had a normal distribution. As a result, in the study nonparametric tests were used for BI and parametric tests for analyzing AC, PU, PC, and OA variables.

Table 2

Results of One-Sample Kolmogorov-Smirnov Test for Determing Normal Distribution

		Af.Co.	Pe.Us.	Pe.Co.	Be.In.	Ov.At.
N		95	95	95	95	95
Normal Parameters a, b	Mean	67.80	22.68	44.38	63.09	49.47
	Std. deviation	11.85	11.59	9.87	13.11	5.93
More extreme differences	Absolute	.128	.105	.107	.198	.087
	Positive	.128	.105	.105	.087	.060
	Negative	-.104	-.095	-107	-.198	-.087
Kolmogorov-Smirnov Z		1.24	1.024	1.045	1.92	.849
Asymp. Sig. (2-tailed)		.090	.245	.224	.001	.468

Note: a. Test distribution is Normal b. Calculated from data

Descriptive statistics and reliability analysis tests were computed to investigate the participants' mean score for each of the computer attitude subscales and the reliability of the items in each component. The information represented in Table 3 shows that the mean score of the participants in AC (M=22.27) was more than the mean scores of the other subscales. It also means that the students' feelings towards computers were very high. In addition, the participants' overall mean score was 45.44, which reveals that they had, in general, high attitudes towards computer use.

Table 3

Descriptive Statistics and Reliability Coefficients for Each Subscale (n=95)

Subscales	*No of items*	*M*	*SD*	*Alpha*
Affective Component (AC)	6	22.27	2.84	.744
Perceived Usefulness (PU)	5	9.53	2.31	.590*
Perceived Control (PC)	6	16.65	2.36	.719
Behavioral Intention (BI)	4	14.09	2.09	.606*
Overall Attitude (OV)	21	45.44	8.09	.779

Note: *Mean inter-item correlation is between 0.2 and 0.4

In addition, the results of the reliability analysis revealed that Cronbach's alpha for CA components was quite high, confirming the reliability for each item. Ideally, according to Pallant (2007), Cronbach's alpha coefficient for a scale should be above (0.7). However, Cronbach's alpha values are quite sensitive to the number of items in the scale. With short scales (e.g. scales with fewer than ten items), it is common to find quite low Cronbach's alpha values (e.g. 0.5). In this case, it may be more appropriate to report the mean of inter-term correlation for the items. Briggs and Cheeks (1986) recommend an optimal range for the inter-item correlations of 0.2 to 0.4. In the study, for the variables that Cronbach's alpha was less than (0.7), the means of the inter-term correlations were 0.3 and 0.4.

Pearson correlation test was computed to investigate the relationship between the four components of participants' computer attitude (CA). The results of the study, as represented in Table 4, reveal that there was a strong relationship between the factors, whereas all the subscale variables were positively correlated to overall attitude, there were both direct and contrary correlations between the subscale variables. Affective components negatively correlated to PU and PC, but positively correlated to BI. Perceived usefulness components negatively correlated to BI. There was not any significant correlation between AC and PU, PU and PC, and PC and BI. Perceived control had no significant correlation with any of the other subscales. In addition, PU was poorly correlated to overall attitude. This means that the beliefs of the participants about the usefulness of computers in their daily life and job were low. Affective components were highly correlated to the students' behavioral

intention (BI) and overall component. There was an ordered and increasing positive pattern between the correlations of subscale variables with overall attitude. As we moved in a positive range from PU (r=.269) to PC (r=.558) to BI (r=.593) to AC (r=.620), the intensity of correlation largely increased. This in general terms means the participants of the study had high positive attitudes towards computer use.

Table 4

Results of Pearson Correlation Test for the Relationship Between Subscales of Attitude Towards CU

Subscales	***Affective Component***	***Perceived Usefulness***	***Perceived Control***	***Behavioral Intention***	***Overall Attitude***
Affective Component	----	----	----	----	----
Perceived Usefulness	.-.269**	----	----	----	----
Perceived Control	-.036^	.166^	----	----	----
Behavioral Intention	.434**	-.225*	.062^	----	----
Overall Attitude	.610**	.296**	.558**	.593**	----

**is significant at 0.01(2-tailed) *is significant at 0.05(2-tailed)

A *T-test* was used to study the role of gender and computer education in AC, PU, PC, and overall attitude, and a *Mann-Whitney U Test* was used to study the role of gender and computer education in BI. The results of the studies revealed that there were not any significant differences between male and female, or between *taken / not taken a computer course* in any of the variables (p>0.05).

To study the role of the participants' education type on overall attitude (OA) and the four subscales - AC, PU, PC, and BI - we used both a parametric *ANOVA Test* and non-parametric *Kruskal-Wallis Test*. The results of the study, as represented in Tables 5, revealed that there were significant differences between education types in AC, PU, BI, and OA. In the current research study, it was found that AC, BI, and OA among students of Translation and Interpretation and PU among ELT students were greater than the other education types. The results of the study showed that students of translation and interpretation had a high attitude towards computer use.

Table 5

Results of ANONA Test for Role of Subject Domains on Different Variables

Scale	*Source*	*SS*	*df*	*MS*	*F.*	*Sig.*
Affective Component	Between Groups	1886.562	4	471.640	3.749	.007
	Within Groups	11323.234	90	125.814		
	Total	13209.795	94			
Perceived Usefulness	Between Groups	1361.905	4	340.476	2.717	.035
	Within Groups	11278.621	90	125.318		
	Total	12640.526	94			
Perceived Control	Between Groups	97.469	4	24.367	.242	.914
	Within Groups	9061.157	90	100.680		
	Total	9158.626	94			
Overall Attitude	Between Groups	467.503	4	116.876	3.693	.008
	Within Groups	2848.018	90	31.645		
	Total	3315.521	94			

SS: Sum of Square, *MS*: Mean Square

The results of Table 5 show that at a significance level p=.007 (p<0.01), the mean score of students of translation and interpretation (M=78.24) was significantly higher than the mean scores of students in the other subject domains. It can be seen from this that translation and interpretation students had very good feeling towards computer.

It was also found that ELT (Engligh Language Teaching) students' mean of (M=27.50) with a significance level p=.035 (p<0.05) and confidence level 95% was significantly higher than other students. This revealed that ELT students in comparison to other students had a strong belief about the usefulness of computers in their job. On the basis of the information represented in Table 5, it was observed that difference between the mean scores for students' overall attitude between education types (subject domains) was more significant. This showed that translation and interpretation students' mean score of (M=53.83; *p*=.008 p<0.05) for overall attitude was also higher than students of other subject domains. However, there was no significant difference between educational groups in students' perceived control components towards computers.

Table 6

Results of Kruskal-Wallis Test for the Role of Subject Domains on Behavioral Intention

BI.	***Education type (Grouping Variables)***	***N***	***Mean of Rank***
	ELT	36	48.25
	Linguistics	8	43.19
	Literature	21	56.74
	Translation and Interpretation	9	65.67
	Other Courses	21	33.10
	Total	95	
	Chi-Square		12.62
	df.		4
	Asymp. Sig.		.013

In addition, the results in Table 6 show that translation and interpretation students for a significance level p=.013 ($p<0.05$) and confidence level 97% had a significantly higher mean score (M=65.67) in BI than the students of other subject domains. This revealed that translation and interpretation students in comparison to other students have very high intentional behaviors and actions, or attitudes, with respect to computers.

Table 7

Results of Mann-Whitney U test for the Role of Age on Behavioral Intention

BI.	*Age (Grouping Variables)*	*N*	*Mean of Rank*	*Sum of Rank*
	20-24	81	50.78	4113.50
	25 and over	14	31.89	446.50
	Total	95		
	Mann-Whitney U			341.5
	Wilcoxon W			446.5
	Z			-2.409
	Asymp. Sig.			.016

The *T-test* and *Kruskal-Wallis test* were also computed to study the effect of learners' age on computer attitude subscales and overall attitude towards computers. The results, as represented in Tables 7 and 8, revealed that only the observed differences within the means of scores for BI and OA between the two age groups (20-24 and 25-over) were significant

Table 8

Results of T-Test for role of Learners' Age on Overall Attitude

Age	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
20-24	81	50.11	5.23	.58
25 and over	14	45.78	8.28	2.21

Independent Samples Test

OV.	*Levene's Test for Equality of Variances*		*T-test for Equality of Means*						
	f	*Sig.*	*t*	*df*	*Sig. (2.tailed)*	*Mean difference*	*Std. error difference*	*95% confident interval of differences*	
								lower	*upper*
Equal Variance Assumed	5.07	.027	2.62	93	.010	4.36	1.66	1.05	7.68
Equal Variance Not Assumed			1.90	14.84	.076	4.36	2.28	-.51	9.25

The results, Tables 7 and 8, show that mean scores of students in BI and OA among those within the age group 20-24 was higher than the mean scores of students older than 20. As such, students within the age group 20-24 have a more favorable attitude towards computer use.

Discussion and Conclusion

In the current study, it was found that the participants showed a positive attitude toward computer use. Participants' mean scores for each subscale ranged from M=9.53 (PU), 14.09 (BI), 16.65 (PC) to 22.27 (AC). In addition, their mean score for overall attitude was 45.44, which represents a high level for positive attitudes towards computer use. Between the subscales, the mean scores for PC and AC were more significant, which revealed that the participants had very a strong feeling towards computers and their perceived comfort level of using computers. The overall positive attitude towards computer use provides the opportunity for pre-service teachers to have availability and accessibility to computers in the educational setting. In a study of 47 teachers based in the US, Dexter, Anderson, and Becker (1999) concluded that using computers in the classroom in a teacher/learner centered way is the teachers' decision, rather than that of the learners. They argue that teachers must have opportunities to work with computers and technology resources,

models of how these resources and tools can be used in instruction, and opportunities to reflect on the role of computers on the learning process. In congruent with the aforementioned studies Teo (2006, 2008) postulates that teachers integrating computer use in their teaching processes and classroom activities plays a significant role in their students' learning processes. Put differently, teachers must be provided with opportunities to construct their knowledge about educational technology in order to be able to act upon it, and as Teo (2006, 2008) also states, this acts as a driver for the effective integration of technology both for teaching and learning in the educational setting.

Dexter, Anderson, and Beker (1999) also conducted a study which revealed there to be a significant intensive correlation between subscales of computer attitude and overall attitudes. In other words, it represents the extent to which every component affects the participants' overall attitudes towards computer use. The high intensity of correlations were most for affective component (r=.610), behavioral intention (r=593), and perceived control (r=558). The significant correlation between perceived usefulness and overall attitude (r=.296) in comparison to other subscales was poor. This may be due to the fact that pre-service teachers may not have had enough opportunities to deal with computers as an educational technology in their job up to this point. To improve pre-service teachers' beliefs about the usefulness of computers in their job, educational settings need to provide appropriate situations for their teacher to deal more with computers. This, in turn, will provide opportunities for pre-service teachers to integrate and internalize the usefulness of computer use for their benefit. In this way, it will be possible for pre-service teachers to find the importance of computer use in their job. In addition, they will be more interested in using computer technology in the classroom.

The results of the study also show that the affective component (r=.438) had a significant positive correlation with behavioral intention, but significant negative correlation with perceived usefulness (r=-.269). The more the students' feelings towards computer use increased, the more intensively their beliefs about the usefulness of computers in their job decreased. In addition, it was found that perceived usefulness (r=-225) was negatively correlated to behavioral intention. This may be because of the fact that, as Lam (2000) states, many teachers fail to use technology not because they are technophobic, but because they cannot understand how technology can be utilized in their teaching practices, or have doubts about the usefulness of technology. Morton (1996) found that one major factor that prevents teachers from integrating computer technology into their classrooms was a lack of knowledge for how it can promote learning. Teachers not only need to have knowledge about computer technology, but also the knowledge of how to use computers in the educational settings. To integrate computer technology into the teaching and learning process in educational settings, teachers should be familiar with its relation to the subject being taught. Dusick (1998) notes that knowledge about the usefulness of computer technology is a key factor for the integration process. Teachers need to know how computer technology can be useful in classrooms in order to promote learning. Furthermore, this helps learners become aware of how computer use facilitates learning.

In this study, no significant relationship between learners' gender and computer course (taken/not taken) with computer attitude were found. The findings of the present study do not support previous studies, which resulted in significant differences between males and females (Margolis & Fisher, 2002; Culley, 1988) and significant differences for taking or not taking a computer course (e.g. Aydogdu, 2001).

A significant relationship between participants' age with their behavioral intention and overall attitudes towards computers was found through this study. The results revealed that there are significant differences between the two age groups – (20-24) and (more than 25). Students within the age group between the ages of 20 and 24 had significantly high intentional behavior and a high overall attitudes towards computer use.

It was found that there were significant differences between participants' overall attitude and its subscales in different subject domains. Participants with respect to their subject domain (Linguistics, English Language Teaching, Literature, Translation and Interpretation, etc.) differed in their perceptions of how they feel about/like computers (affective), how useful they find computers in their job (perceived usefulness), and their behavioral intentions (behavioral) in using computers. In the current study, it was found that ELT students, in comparison to other subject domains, found computers significantly more useful in their job. In addition, translation and interpretation students when compared with other subject domains liked more significantly computers and possessed high intensive behavioral intentions towards using technology and working with computers.

Conclusion

Teachers act as significant figures at schools, with students mostly imitating their teachers. Educational settings need to provide more opportunities for pre-service teachers to deal with computer technology. In addition, as Morton (1996), Dusick (1998), Dexter, Anderson, and Becker (1999), Lam 2000, Gündüz (2005), Shanbarger and Joseph (2005), Davies (2006, cited in Berns 2010), and Teo (2006, 2008) have previously stated, teachers' knowledge about technology use as a significant and important educational tool needs to be improved. Teachers have to be trained with regards to how technology works and how it can come to their help to facilitate their teaching and the learning of their students.

In the current study, it was found that pre-service teachers were very interested in computers but their belief about using computers as an educational tool as part of their job was a bit poor. Educational centers have to be aware that if teachers don't have enough internal interest towards computer use, they won't use computers in their classrooms. The most important aspect that educational centers need to focus on is to integrate and internalize the use of computers as an educational tool.

Language centers need to be aware that computers affect fundamental changes that occur not only in society outside of classroom walls, but also within them. The

invasion of electronic media has revolutionized language teaching methodology. Computers are now used as effective tools in terms of assessment, teaching grammar, vocabulary, syntax, reading, comprehension, and even in developing interactive communication skills and creating writing activities. In addition, the use of computers in language classrooms can, in turn, enhance language learners' motivation levels.

There are several limitations in the current study. Firstly, the study was conducted with a small sample size. Second, the subject domain in the study is limited to only a number of social sciences, including linguistics, literature, English language teaching, and translation and interpretation. Finally, data was collected using a single administration design, thus making it impossible to establish the stability of the participants' attitude towards computers.

In addition, there is the need for future studies to investigate the extent to which pre-service teachers are internally or externally motivated to use computers as an important educational tool in their teaching.

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Bilgisayar Kullanımına İlişkin Okulöncesi İngilizce Öğretmen Adaylarının Tutumu

Atıf:

Sarıçoban, A. (2013). Pre-service ELT teachers' attitudes towards computer use: A Turkish survey. *Egitim Arastirmalari-Eurasian Journal of Educational Research,* 53, 59-78.

Özet

Problemin Tanımı: Günümüzde bilgisayar teknolojileri yabancı/ikinci dil öğretiminde önemli bir rol oynamaktadır. Bu nedenle, yabancı dil öğretmenleri, öğretim aktivitelerinde bilgisayar kullanımına yönelik farklı tutumlar göstermektedirler. Bu öğretmenlerin bilgisayar kullanımına yönelik hangi tutumları gösterdiklerini ve yaş, cinsiyet, konu alanı ve bilgisayar eğitimi gibi çeşitli etmenlerin bu tutumlar üzerinde etkili olup olmadığını öğrenmek oldukça önem arz etmektedir.

Araştırmacılar, uzun yıllardır, kullanıcıların tutum ve inançlarının, onların teknoloji kullanımlarını nasıl etkilediğini anlamakla ilgilenmişlerdir (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Dishaw & Strong, 1998; Taylor & Todd, 1995; Venkatesh & Davis, 2000). Bilgisayarlara duyulan tutumlar, öğretmenlerin, teknolojinin faydalı olduğuna dair düşüncelerini ve aynı zamanda, öğretmenlerin bu tür kaynaklara nasıl yaklaştığını ve onları derslerine dahil edip etmediklerini etkilemektedir (Clark, 2000; Akbaba & Kurubacak, 1998). Belirli bir bilgisayar teknolojisi kaynağının uygunluğu ile ilgili inanç, öğretmenlerin o kaynağı kullanıp kullanmayacağını belirleyen bir anahtar etmendir. Bu fikri desteklemek için, Huang & Liaw (2005) bilgisayarların etkili biçimde kullanılmasını etkileyen etmenler, öğretmenlerin bilgisayarlar karşı tutum ve inançlarıdır.

Pek çok öğretmen, teknolojiyi kullanmaktan korktukları için değil, aslında teknolojiyi öğretim etkinliklerinde nasıl kullanacaklarını bilmediklerinden veya teknolojinin faydalı olduğu konusunda şüpheleri olduğu için, teknolojiyi kullanmakta zorlanmaktadırlar. (Lam, 2000). Morton (1994, Morton, 1996'da belirtildiği gibi) öğretmenlerin bilgisayar teknolojisini sınıflarına dahil etmelerini engelleyen ana etkenin, öğrenmeyi tetikleyen bir etkisi olduğunu bilmemeleri olduğunu saptamıştır.

Başka bir taraftan bakılırsa, öğretmenler sadece bilgisayar teknolojisi bilgisine sahip olmamalı, bunun yanında bilgisayarı öğretim ortamlarında nasıl kullanacağını bilmelidir. Bilgisayar teknolojisini öğretim ortamlarında öğretim ve öğrenmeye dahil etmek için, öğretmenlerin, öğrenilen konuyla bağlantılarını bilmesi gereklidir. Dusick (1998) bilgisayar teknolojisinin faydalılığı ile ilgili bilginin, onu dahil etmede anahtar bir etken olduğunu belirtir. Diğer bir deyişle, öğretmenler bilgisayar teknolojisinin sınıflarda nasıl faydalı olabileceğini ve öğrenmeyi etkileyeceğini bilmelidir. Daha da önemlisi, öğreniciler bilgisayarların öğrenmelerini olumlu yönde etkileyeceğini bilmelidirler.

Çalışmanın Amacı: Bu çalışma, Türk öğretmen adaylarının bilgisayar kullanımına yönelik tutumlarını belirlemeyi amaçlamaktadır.

Yöntem: Bu çalışmada Türk öğretmen adaylarının bilgisayar kullanımına ilişkin tutumları incelenmiştir. Daha önce Timothy Teo (2008) tarafından geliştirilen bir anket kullanılarak Hacettepe, Gazi ve Ortadoğu Teknik Üniversitelerinde okuyan 95 İngilizce Öğretmenliği, Dilbilim, Edebiyat ve Mütercim-Tercümanlık bölümü öğrencilerine uygulandı. Likert anketi kullanılarak katılımcıların bilgisayar kullanımına ilişkin tutumları dört faktör çerçevesinde değerlendirildi: duyuşsal unsurlar, algılanan yararlılık unsuru, algılanan kontrol unsuru ve davranışsal hedef unsuru.

Bulgu ve Sonuçlar: Sonuçlar, katılımcıların genelinin bilgisayar tutumuna yönelik yüksek genel tutum değerleri gösterdiğini vurgulamaktadır. Sonuçlar, aynı zamanda, duygusal etkenlerin planlanmış davranış etkeniyle anlamlı bir pozitif ilgileşim; fakat algılanan yararlılık ile de negatif ilgileşim içinde olduğunu göstermektedir. Bir diğer deyişle, öğrencilerin bilgisayar kullanımına yönelik ilgileri arttıkça, iş yaşamında bilgisayar kullanımına olan inançları o yoğunlukta düşüş göstermektedir. Ayrıca, algılanan yararlılık etkeni planlanmış davranış ile negatif ilgileşim içindedir. Herhangi anlamlı bir cinsiyet farkı görünmemektedir. İlaveten, bilgisayar derslerinin bilgisayar kullanımına yönelik tutum üzerinde herhangi bir etkisi bulunmamaktadır. Katılımcıların yaş ve konu alanı faktörü, bu tutum üzerinde büyük rol oynamaktadır. Çalışmada, 20-24 yaş arası öğrencilerin bilgisayar kullanımına daha yoğun planlanmış davranış ve daha yüksek genel tutum gösterdiği görülmektedir. İngiliz Dili Öğretmenliği bölümü öğrencilerinin, diğer bölüm öğrencilerine kıyasla, iş yaşamında bilgisayar kullanımına yönelik konu alanı bazında daha yüksek ilgi seviyesine sahip olduğunu göstermektedir. Mütercim-Tercümanlık bölümü öğrencilerinin, diğer bölüm öğrencilerine kıyasla, bilgisayarlara daha fazla ilgisi bulunmaktadır. Aynı zamanda, aynı bölüm öğrencileri, yine diğer bölüm öğrencilerine kıyasla, bilgisayar kullanımı konusunda daha yoğun planlanmış davranış ve daha yüksek genel tutum değerlerine sahiptirler.

Anahtar Kelimeler: Öğretmen tutumları, yabancı dil eğitimi, bilgisayar kullanımı, teknoloji