# An investigation of office management and wxecutive assistant lecturers' attitudes towards information technology

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## Abstarct

*This study aims to investigate the attitudes of office management and executive assistant department lecturers working at a vocational school towards information technology and the extent to which they use technology tools in their life. Research population consists of 455 office management and executive assistant department lecturers working at a vocational school in Turkey and the sample consist of 100 lecturers who returned the survey. Data were collected with "Office Management and Executive Assistant Lecturers' Attitudes Towards Information Technology Survey Scale", which was published in "Computers in the Schools" journal in 2014 and named "Measuring Teacher Attitude Towards Instructional Technology: A Confirmatory Factor Analysis of TAC and TAC". The score of the reliability check, done with Cronbach Alpha, was 0.858 for the questionnaire. In order to ensure the accuracy of the data mixed methods research was used combining both quantitative and qualitative research methods. The results of the data analysis yielded positive findings regarding office management and executive assistant lecturers towards information technology and their use of the computer, e-mail, multi-media, world wide web (www) correlating with their positive attitudes ($p<0.05$).*

***Keywords:*** *Office management, information technology, technology usage, education technology*

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# Büro yönetimi ve yönetici asistanlığı öğretim elemanlarının bilgi teknolojilerine olan tutumlarının belirlenmesine yönelik bir alan çalışması

## Öz

*Bu çalışma, Meslek Yüksekokullarının Büro Yönetimi ve Yönetici Asistanlığı programında görev yapmakta olan öğretim elemanlarının bilgi teknolojilerine olan tutumlarını ve teknoloji kullanımlarını araştırmayı amaçlamaktadır. Araştırmanın evrenini Türkiye'de bulunan Meslek Yüksekokullarının Büro Yönetimi ve Yönetici Asistanlığı programında görev yapmakta olan 455 öğretim elemanı oluşturmaktadır. 455 öğretim elemanına anket verileri ulaştırılmış fakat yalnızca 100 öğretim elemanı anket verilerine geri dönüş yapığı için, araştırmanın örneklemini 100 öğretim elemanı oluşturmuştur. Bu araştırmanın verileri "Büro Yönetimi ve Yönetici Asistanlığı Öğretim Elemanlarının Bilgi Teknolojilerine Olan Tutumları Ölçeği" ile toplanmıştır. Ölçek 2014 yılında "Okullarda Bilgisayar: Disiplinlerarası Uygulama, Teori ve Uygulamalı Araştırma Dergisinde (Computers in the Schools: Journal of Practice, Theory and Applied Research)" yayınlanmış olan "Öğretmenlerin Öğretim (bilgi ve bilgisayar) Teknolojilerine Olan Tutumları: Doğrulayıcı Faktör Analizi (Measuring Teacher Attitudes Toward Instructional Technology: A Confirmatory Factor Analysis of the TAC and TAT)" makalesinden Türkçeye uyarlanılarak kullanılmıştır. Yapılan güvenilirlik analizi sonucunda cronbach alfa değeri 0.858 olarak bulunmuştur. Araştırmada nitel ve nicel yöntemlerin birarada kullanıldığı karma araştırma modeli kullanılmıştır. Bu araştırma sonucunda, Büro Yönetimi ve Yönetici Asistanlığı programında görev yapmakta olan öğretim elemanlarının bilgi teknolojilerine olan tutumlarının pozitif düzeyde olduğu ve tutumlarındaki bu pozitifliğin teknoloji kullanımlarıyla (bilgisayar kullanımı, internet kullanımı (www), e-mail kullanımı, çoklu-mesya kullanımı) parelellik gösterdiği saptanmıştır.*

***Anahtar Kelimeler:*** *Büro yönetimi, bilgi teknolojileri, teknoloji kullanımı, eğitim teknolojileri*

## Introduction

Information and communication technologies (ICT), which are claimed to be at the center of technological advancements related to globalization, are now seen as the indicators of the information society we are in. Technological developments have accelerated the research processes of scientists. As the universities are rendering cost-effective education to students by using information technologies, they have reached higher qualification and flexibility (Tural, 2002).

Technology, which causes a lot of changes in our lives, has effects on education, too.Planning, managing, and application of education or the utilization of technology for different fields are researched when new technologic innovations or improvements occur (Eryılmaz & Akbaba, 2013). ICT technologies are thought to increase their importance in educational settings in the future. The goal of researchers and educators, who want to spread scientific literacy nowadays, ought to be the development of new equipment and technologies; therefore, the instruction of information technologies and its integration into learning activities. Educators can use information technologies with the whole class, small groups or individuals. Educators can use information technologies for the presentation of knowledge, demonstration of process and skills, explanation of concepts, delivering of instruction, formation of bonds between concepts and ideas,demonstration with video and audio, and the exhibition of writings for the entire class (Meadows, 2004). Nowadays, people and organisations are faced with an ever increasing amount and variety of information and content with the growing demand for knowledge and skills. The teaching profession is not limited to the teaching of new courses or an after-school programme, but is an extension of a developing pedagogical role. Teachers need to change if they want to try new methods and technologies for education (Kalogiannakis, 2010).

Information and computer into education has often been premised on the potential of the new technological tools to revolutionize an outmoded educational system, better prepare students for the information age, and/or accelerate national development efforts.

In developing countries in particular, the above promises have generated a whole set of wild speculations about the necessity of educational reforms that will accommodate the new tools (Pelgrum, 2001). With the effect of computer technology and later internet technology, innovation studies in educational area in the world has been conducted based on these technologies. Traditional classroom environments have yielded to the new learning environments with the introduction of new media in the educational settings. The education limited to only chalk and blackboard is now being exchanged with ICT (Tarman & Baytak, 2011). Attitudes towards computer use are influenced by different variables. Among these are the users' beliefs about various aspects of technology use. These interact with one another to impact the attitudes towards computer use (Teo, 2011 as cited in Teo & Wong, 2013).

Advances in ICT have transformed traditional teaching and learning methods (Livingstone, 2012). In educational practice, teachers' role is the center of all actions. Teacher decides on the way lecture flows and decide how the information will be delivered. In traditional methods, books are what teachers use to deliver information. However, with the vast advances in technology, the role of the teacher shifts to a mediator or a facilitator rather than being in the center. (Bidaki & Mobasheri, 2013) The development and evolution of smart phones and mobile networks may also change the learning systems in tertiary education institutes. However, the main obstacle for teachers in the use of ICT tools is insufficient proficiency and knowledge (Tondeur et al. 2012). Although teachers recognize the potential of such technology and believe that it enhances student learning and connect students' school work with daily activities, they do not believe that it facilitates student teamwork and learning reflection in classroom-based education (Barak, 2006).

ICT in education implies that 'ICT will be used, applied, and integrated in activities of working and learning on the basis of conceptual understanding and methods of informatics' (Khvilon & Patru, 2002). Livingstone (2012) stated that ICT is a combination of educational technologies such as information technology, the Internet, books,

databases, videos, and audio. Therefore, teachers must possess the ability to effectively integrate ICT into their teaching (Wang 2008). Information technology in education is defined as a combination of the processes and tools involved in addressing educational needs and problems by using computers and other related electronic resources and technologies (Roblyer, 2006 as cited in Bally & Levy, 2008).

The functions of ICT tools, rather than the tools, determine their use in a classroom. Accordingly, teachers must identify ICT tool functions that facilitate teaching and increase study interest. In addition, ICT enhances learning through traditional teaching methods and assists teachers in developing students' abilities (Thomas and Thomas 2012). These expectations pose challenges for teachers as well as for teacher educators. It is important for teacher educators to find ways to provide new teachers with the abilities to use ICT and to enhance their intentions to use ICT for teaching and learning. Even though different ICT applications are a part of today's pre-service teachers' everyday world, their use of them for teaching and learning appears to be problematic (Lei, 2009 as cited in Valtonen et al., 2011). The Council for the Accreditation of Educator Preparation (CAEP) identified three broad standards, indicating skills teacher candidates should be able to demonstrate in the classroom. One of the indicators specifies preservice teachers should have the ability to utilize technology to enhance instruction, contribute to classroom management, and assess student learning (URL - 1).

In any school, teachers play a key role in the effective integration of technology for teaching and learning. Teachers decide on the type, frequency, and quantity of technology tools they use in their curriculum design and lesson delivery. Although it may appear that technology integration is a part of their job description, teachers exercise complete volition over their intention and actual usage of technology within their professional space (Yang & Huang, 2008). Researchers on education are of the same opinion that new media-equipped education environments have positive effects on more facilitative teaching and increased learning (Teo & Lee, 2010).

Education can be defined as desired behaviour changing. Education is mostly affected by today's information technology era. Many studies have shown that the development of technology depends heavily on education. Therefore, information technology and education has become one of the most highly debated issues in academic world (Yildirim, 2015). Developments in information technology also affect occupational groups. Office management has diversified and changed with these developments too. The preponderance of the research about teachers' attitudes towards the information technology has been studied in large located. However, no study located has investigated the attitudes of office management and executive assistant lecturers towards information technology.

## Method

### Participants

The study was consisting of two stages; pilot study and main study. Firstly, the pilot study was conducted for reliability analysis and then the main study followed. The sample of the study consisted of 200 participants. The participants of the pilot study were 100 lecturers who lived in Istanbul. The participants of the main study were 100 lecturers who work at the office management and executive assistant department of a Vocational School in Turkey. Office management education is given by 255 vocational schools in Turkey. Gazi University, Faculty of Commerce and Tourism Education was the only school offering office management bachelor program in Turkey. It closed in 2010 and the Master's program in Office Management Education closed in 2013. 455 lecturers working at the office management and executive assistant department were given the survey; however, only 100 were returned.

### Collection and analyses of data

In this study, both quantitative and qualitative research methods were combined. Thus, a mixed methods research methodology was conducted for the implementation of this study. This study was conducted on the Office Management and Executive Assistant lecturers working at a Vocational School in Turkey. Data were collected with

"Office Management and Executive Assistant Lecturers' Attitudes Towards Information Technology Survey Scale", which was published in "Computers in the Schools" journal in 2014 and named "Measuring Teacher Attitude Towards Instructional Technology: A Confirmatory Factor Analysis of TAC and TAC" (Shattuck et all., 2014). It was adapted to Turkish. The score of the reliability check done with Cronbach Alpha was 0.858 for the questionnaire.Kaiser-Meyer-Olkin (KMO) is 0.783, and Bartlett's test was significant. The scale comprised 42 statements on lecturers' interest (7), comfort level (3), interaction e-mail (4), concern (5), utility (4), computer usage (4), e-mail usage (3), world wide web usage (3), multimedia usage (3)and lecturers' productivity (6). Data were gathered from 100 office management and executive assistant department lecturers working at a vocational school in Turkey through a questionnaire in December 2015. The data from the survey were analyzed using the statistical computer package program, SPSS 17.0. Descriptive statistics including percentage distribution, frequency, arithmetic average, mean, one-way ANOVA, univariate ANOVA, T-test and standard deviation were calculated.

**Purpose of study**

The purpose of the study is to determine the attitudes of office management and executive assistant department lecturers working at a vocational school towards information technology and their proficiency levels. The research questions explored in this study were:

Is there a significant mean difference in lecturers' attitudes towards information technology based on their Bachelor degree?

Is there a significant mean difference in lecturers' interest level in information technology based on gender?

Is there a significant mean difference in lecturers' concern level towards information technology based on their Masters degrees?

Is there a significant mean difference in lecturers' use of information technology for education based on their bachelor degree?

Is there a significant mean difference between lecturers' perception levels towards information technology based on their bachelor degree?

Is there a significant mean difference between lecturers use of information technology based on education?

## Results

### Demographic data

100 Office Management and Executive Assistant lecturers working at the vocational school participated in this study. Of the 100 participants, 47 (%47) were females and 53 (%53) were males. Of the 100 participants, 30 (%30) hold a bachelor degree, graduated from the department of Office Management teaching, 45 (%45) from the department of Economics and Administrative programs, 8 (%8) from the department of Education programs while 17 (%17) from the other departments. Of the 100 participants, 21 (%21) hold a master's degree, graduated from the department of Office Management education, 51 (%51) from the department of Economics and Administrative programs, 5 (%5) from the department of Education programs while 23 (%23) from the other departments. These results show that lecturers usually employ other programs.

### Lecturers' technology usage

In the survey, participants were asked to rate their perception of computers. The participants were allowed to choose four factors for rating. The first - second points were seen as positive attitudes; fourth – fifth points were negative attitudes and third point was seen as a neutral attitude. The results has shown that the most rated factor was "computers make me likeable" by 55% followed by "computers make me fresh" by 48% and then "computers make me exciting" by 40% and "computers make me happy" by 39%. The participants were also asked whether computers are necessary tools in both educational and work settings. Of the 100 participants who responded to this question, 97 said yes.

The participants were also asked to rate their e-mail, multi-media, world wide web (www) and teacher productivity. The participants were allowed to choose three factors for rating. The first - second points were seen as positive attitudes; fourth - fifth points were negative attitudes and the third point was seen as a neutral attitude. The results show that the e-mail usage option of "To me, electronic mail (e-mail) is appealing" was chosen by 55% followed by "To me, electronic mail (e-mail) is exiciting" by 47% and "To me, electronic mail (e-mail) is fascinating" by 45%. The results were shown in the most frequent factor of multi-media usage. "To me, multimedia (for example, HyperStudio, KidPix, ezedia, etc.) is exciting" wa chosen by 58% followed by "appealing" and "fascinating" which were both rated by 55 participants. Also, the results showed that the most rated factor was "To me, using the world wide web (www) is fascinating" by67% and "My productivity is fascinating" by 64%.

**Lecturers' attitude towards information technology**

The data obtained from the office management and executive assistant department lecturers' attitudes towards information technology questionnaire were compared according to the bachelor degree obtained and calculated by One Way ANOVA (F-Test). Results of One Way Anova are presented in Table 1. As it can be seen in the table, the results show that there is no statistically significant difference among the different Bachelor degrees obtained *($p < 0.05$)*

*Table 1: Comparison of the lecturers' attitudes towards information technology based on the obtained bachelor degrees.*

| | Group Statistics | | | Test Statistics | | |
|---|---|---|---|---|---|---|
| | **n** | **Mean** | **Std. Deviation** | **F** | **df1 -df2** | **P** |
| Office Management Teacher | 30 | 80 | 8,339 | 6,42 | 3 - 96 | 0,590 |
| Economics and Administrative Programs | 45 | 79 | 7,459 | | | |
| Faculty of Education Programs | 8 | 83 | 12,141 | | | |
| Others | 17 | 80 | 9,229 | | | |

The data obtained from the office management and executive assistant department lecturers' interest levels towards information technology questionnaire were compared based on gender calculated by an independent samples t- test. The results of t-test are presented in Table 2. The two variables were determined to be homogeneous *(p = 0,909)*by levene test *(p < 0.05).*As it can be seen in the table, results show that there was statistically significant difference among different genders *(p < 0.05).* The males' (M=26,962) interest level was higher than that of females (M=24,063).

*Table 2: Comparison of the lecturers' interest levels towards information technology based on gender*

| | Group Statistics | | | Test Statistics | | |
|---|---|---|---|---|---|---|
| | **n** | **Mean** | **Std. Deviation** | **T** | **df** | **P** |
| Female | 47 | 24,063 | 5,001 | 2,880 | 98 | 0,005 |
| Male | 53 | 26,962 | 5,041 | | | |

The data obtained from the office management and executive assistant department lecturers' comfort levels towards information technology questionnaire were compared according to the genders and was calculated by an independent samples t-test. The results of t-test are presented in Table 3.The two variables were determined to be homogeneous *(p = 0,996)* by levene test *(p < 0.05)*. As it can be seen in the table, results show that there is no statistically significant difference among different genders *(p < 0.05)*.

*Table 3: Comparison of the lecturers' concern levels towards information technology based on the obtained master's degrees*

| | **Group Statistics** | | | **Test Statistics** | | |
|---|---|---|---|---|---|---|
| | **n** | **Mean** | **Std. Deviation** | **F** | **df1 - sdf2** | **P** |
| Office Management Education | 21 | 17,66 | 4,016 | | | |
| Economics and Administrative Programs | 51 | 17,39 | 3,538 | 0,78 | 3 - 96 | 0,514 |
| Educational Sciences Programs | 5 | 17,60 | 4,393 | | | |
| Others | 23 | 16,13 | 4,082 | | | |

The data obtained from the office management and executive assistant department lecturers' usage levels of information technology were compared based on the obtained bachelor degrees; it was calculated by One Way ANOVA (F-Test). Results of the One Way ANOVA are presented in Table 4. As it can be seen in the table, results show that there is no statistically significant difference among different bachelor degrees obtained ($p < 0.05$).

*Table 4: Comparison of The Lecturers' Level of Utility Towards Information Technology with Regard to Graduated Bachelor's Degree*

| | Group Statistics | | | Test Statistics | | |
|---|---|---|---|---|---|---|
| | **n** | **Mean** | **Std. Deviation** | **F** | **df1 - df2** | **P** |
| Office Management Teacher | 30 | 16,50 | 3,126 | | | |
| Economics and Administrative Programs | 45 | 17,51 | 1,890 | 1,186 | 3 - 96 | 0,319 |
| Faculty of Education Programs | 8 | 17,00 | 2,138 | | | |
| Others | 17 | 16,82 | 1,845 | | | |

The data obtained from the office management and executive assistant department lecturers' perception levels towards information technology questionnaire were compared according to the obtained master's degrees and calculated by One Way ANOVA (F-Test). Results of One Way ANOVA are presented in Table 5. As it can be seen in the table, results show that there is no statistically significant difference between different bachelor degrees obtained *($p < 0.05$)*.

*Table 5: Comparison of the lecturers' perception levels towards information technology based on the obtained bachelor degree.*

| | Group Statistics | | | Test Statistics | | |
|---|---|---|---|---|---|---|
| | **n** | **Mean** | **Std. Sapma** | **F** | **df1 - df2** | **P** |
| Office Management Teacher | 30 | 16,50 | 3,126 | 1,186 | 3 - 96 | 0,319 |
| Economics and Administrative Programs | 45 | 17,51 | 1,890 | | | |
| Faculty of Education Programs | 8 | 17,00 | 2,138 | | | |
| Others | 17 | 16,82 | 1,845 | | | |

The data obtained from the office management and executive assistant department lecturers using the information technology questionnaire were compared according to education groups calculated by Univariate ANOVA (F-Test). Results of Univariate ANOVA are presented in Table 6. As it can be seen in the table, results show that there is no statistically significant difference between different bachelor and master's degrees *obtained ($p < 0.05$).*

*Table 6: Comparison of The Lecturers' Using Information Technology with Regard to Education*

| | **Sum of Squares** | **df** | **Mean Squares** | **F** | **P** |
|---|---|---|---|---|---|
| Bachelor | 17,754 | 3 | 5,918 | 0,332 | 0,802 |
| Master | 27,177 | 3 | 9,059 | 0,508 | 0,678 |
| Bachelor * Master | 32,652 | 4 | 8,163 | 0,458 | 0,766 |
| Error | 1586,036 | 89 | 17,821 | | |
| Total | 14246,000 | 100 | | | |

## Discussion and conclusions

This study aims to investigate the attitudes of office management and executive assistant department lecturers working at a vocational school, towards information technology and the extent to which they use technology tools in their private and professional lives. The results of the data analysis yielded positive findings regarding office management and executive assistant department lecturers' attitudes towards information technology. These results are consistent with findings by Cavas et al. (2009) in our study; almost all Turkish science teachers have showed positive attitudes toward ICT (Gülbahar, 2008). The results showed that, in general, both the preservice teachers and instructors are in favor of using technology in and out-of-class activities. This positive attitude is an important indicator of willingness and first step in effective integration. One of the prerequisites for acceptance and implementation of computers in an educational system is the positive attitude of both teachers and students toward their use. Having a positive attitude toward technology has been shown to be associated with increased classroom use of computers (Moursund et. al., 1999 as cited in Fluck, 2001). Similarly, Kersaint et. al., (2003) found that teachers who have positive attitudes toward technology feel more comfortable with using it and usually incorporate it into their teaching. The perception of teachers is very important because ICT support can play a crucial role in developing positive teacher attitudes toward technology and also successful implementation of technology in curricula (Saltan, 2015). Rana (2012) found that, most of the teacher educators have positive attitudes towards the general role that information and communication technology can play in education and in the educational process. Findings show that teachers possess positive attitudes toward ICT in school mostly due to the advantages that technology offers such as distant learning and visualization of the material (Mustafina, 2016). The findings of the study reveal that the ICT user teachers' attitude towards ICT is highly positive in comparison to ICT non-user teachers but they have also positive attitude towards ICT in relation to their school teaching subjects (Lal, 2014). Shah and Empungan (2015) found that, almost all the respondents hold positive attitudes towards ICT though the actual

use of ICT tools in the teaching and learning process is not so widespread.

The vocational school of office management and executive assistant department lecturers' interest levels towards information technology showed statistically significant difference between different genders ($p < 0.05$). The males' (M=24,063) interest level was higher than that of females (M=26,962). These results are consistent with the findings of Broos (2005) in general, female students have a more negative attitude towards ICT compared with their male counterparts. Generally, research has supported the idea that females have less experience with and a more negative attitude toward computers than their male counterparts (Campbell et al., 2002). Deniz (2005) indicated that male teachers have more positive attitudes than their female counterparts. Previous research findings have shown that males are more skillful in using technology and are more positive towards its usage for learning (Li & Kirkup, 2007 as cited in Vankatesh et. al, 2014). Female pre-service teachers had lower scores on perceived ease of use, suggesting that technology use was more challenging for female pre-service teachers than for their male counterparts (Teo et. al., 2015). Also similarly, Sadik (2006) found that comparing male and female teachers'scores on computer experience and the four computer attitude subscales showed that male teachers had statistically higher computer use experience, the ability to use various computer applications, and future plans (for computer use) and expressed statistically more positive attitudes toward computers on the four subscales than did female teachers. Cai, Fan and Du studied the gender attitude towards technology of the last 20 years; their work was called Gender and attitudes toward technology use: A meta-analysis". They found that males still hold more favorable attitudes toward technology use than females, but such difference would be characterized as small effect sizes.

According to the results, lecturers in general had positive attitudes toward information technology and their use of computer, e-mail, multi-media and world wide web (www) correlated with their possitive attitudes. These findings indicate that teachers are interested

in technological tools and their proficiency were high. Results of this study revealed that principals had positive attitudes toward the use of technology in teaching (Serhan, 2007). Teachers' positive attitudes exhibit their initiative in the innovation-decision process (Rogers, 1995). Having formed positive attitudes toward ICT in education, participants are expected to be using ICT in their classrooms once computers become more available to them. In fact, the behavioral subscale of the computer attitude scale showed that the majority of teachers had the intention to learn about computers and to use them in the near future. This symbiotic relationship between attitudes toward ICT and its use in the classroom has been widely reported in the literature (Blankenship, 1998 as cited in Isleem, 2003).As a result of the study, the teachers showed a very positive attitude towards using technological tools (Konca et al., 2016).

Finally, lecturers' use of information technology shows that there is no statistically significant difference between the obtained bachelor and master's degrees ($p < 0.05$). This study found that the vocational school of office management and executive assistant department lecturers' attitudes towards information technology were positive towards information technology and information technology tools.

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