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Öğretmen Adaylarının Sosyal Ağları Öğretim Faaliyetlerinde Kullanımına Yönelik Bir Araştırma

A Study on Preservice Teachers' Use of Social Networks in Teaching Activities

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Özet

Teknoloji'nin hızla ilerlemesi, web hizmeti sunan teknolojik araçların ve bu araçların bireylere sağladığı sanal ortamların hızla hayatımıza girmesine neden olmaktadır. Teknolojinin hayatımızın bir parçası olmasının nedenlerinden biri de teknoloji ile hayatımıza giren soysal ağlardır. Teknoloji ile yaşadığımız bu hızlı değişim, bireylerin teknolojiyi kullanma eğilimlerini araştıran çalışmaların da ortaya çıkmasına neden olmuştur. Bu çalışmaların odaklarından biri de teknolojinin mesleki anlamda kullanılması ve potansiyel kullanıcıların teknolojiyi kullanma niyetleridir. Bu çalışmanın amacı öğretmen adaylarının teknoloji kullanma niyetlerini ve öğretim faaliyetlerinde teknoloji kullanımının kullanışlılığına yönelik algılarını etkileyen faktörleri sosyal ağlar bağlamında belirlemektir. Araştırmada verilerin toplanmasında Teknoloji Kabul Modeli esas alınarak geliştirilen bir ölçek kullanılmıştır. Çalışmanın örneklemini farklı öğretmenlik programlarında öğrenim gören 571 öğretmen adayı oluşturmaktadır. Çalışma sonucunda öğretmen adaylarının öğretim faaliyetlerinden teknoloji kullanma niyetlerini en çok etkileyen boyutun algılanan kullanışlılık olduğu; algılanan kullanışlılığı en çok etkileyen faktörün imaj olduğu bulunmuştur.

Anahtar kelimeler: Teknoloji Kabul Modeli II, sosyal ağlar, öğretmen adayları

Abstract

Many technological tools enter into our lives with the rapid developments in technology. One of the reasons that technology has become part of our lives is the social networks. This fast change we experienced with the technology also gave inspiration to the studies, which searched the tendencies of the individuals in using technology. One of the focuses of these studies is the professional use of technology and the intentions of the potential users. The aim of this study is to determine the purpose of pre-service teachers' use of technology and the factors which affect their

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perceptions of the practicality of the use of technology in teaching activities regarding social networks. In data collection, a scale that was developed on the basis of Technology Acceptance Model was used. The sample of the study consisted of 571 pre-service teachers from different departments of an education faculty. Findings showed that the most effective aspect of the intention of the use of technology in teaching activities is the perceived usefulness; and the most effective factor of the perceived usefulness is the image.

Keywords: Technology Acceptance Model II, social networks, pre-service teachers

Introduction

In last decades, varying in number and type, serving for different purposes increased the use of social networks; the popularity and the ease of use enabled them to be used by more users by allowing them to shift between social networks. For example, according to the results of research carried with university students in Turkey, people who have interaction anxiety get in contact with their friends via social networks instead of face to face contact and get social help from their friends by using these networks (Baltacı, İşleyen, Özdemir, 2012). According to the data of the research, which was done by Global Web Index (2015) for the third quarter of 2015 on the social networks, the daily time spent on the social Networks by typical internet users was determined as 1,77 hours. According to the same study, the users have accounts on an average of 6 different social networks, and they use actively about 4 of them. The users between 16 to 24 years old and 25 to 34 years old, on the other hand, were determined to be the ones who use the social networks mostly. It can be seen that, when close attention is paid, these age groups consists of high school students, pre-service teachers and teachers with a greater tendency towards technology. Thus, social networks are used intensively by the age groups, which include the three groups that are at the center of the focus of education.

If the negative sides of this usage rate are left aside, it reveals as an inevitable fact that a common area, which is used in this scale, would also be used by students and educators in teaching activities (Acarlı and Sağlam, 2015). The use of technology and its products in education and teaching has important consequences not only for students but also for the educators. These technologies shorten the

period of reaching information and sharing it with the students and thus increase the productivity within the process of education. Therefore, apart from their original reasons for existence, that was communication and social sharing; social networks are also used for teaching purposes. Besides being flexible and user friendly, social networks that are easier to use when compared with the teaching management systems, provide many benefits for academicians (and teachers), and enable many conveniences in terms of allowing the students and the researchers to form groups, share information within the groups, communication and feedback (Gülbahar, Kalelioglu, and Madran; Özmen, Aküzüm, Sünkür, and Baysal, 2012). Social media also facilitate activities which encourage participation, collaboration of students and commitment to learning (Seifert, 2016). Besides, as a tool of learning, social networks are taking part in forming new learning theories like connectivism (Siemens, 2005) or constructs like personal learning environments (Dabbagh and Kitsantas, 2012). Pinchuk (2016) gathered up some psychological, social and pedagogical argument in favor of application of social networks which were identified by experienced researchers. According to Pinchuk, the most convincing features of social networks are: Electronic social networks (ESN) have different opportunities to store data; are popular among young people; provide opportunities for young people to improve their skills in learning environment, and engage them in activities. Besides them a class discussion can be continued in the social networks, and a learning group which is set up in virtual environment is always available by using mobile networks.

There are studies carried out about the social networks, which have such a significant role in our lives, in order to be used more accurately, efficiently and in parallel with educational purposes. In higher education, some social media tools is being used for the educational purposes like assessment (Rosen and Nelson, 2008), engagement of student in collaborative projects (Hazari, North, and Moreland, 2009) increasingly. However, some researchers found that some social networks (facebook) are used by university students mostly for social reasons instead of formal teaching purposes, although it was sometimes used informally for learning purposes (Madge, Meek, Wellens, & Hooley, 2009). In this respect, İşman and

Albayrak (2014) emphasize that we should educate the learners about how they can communicate with people around them and develop an effective cooperation on the internet, and we should show them that they can socialize not only in their lives outside the school but also in the school environment by developing their points of view on these platforms. However, one of the points we should research before doing this is to determine for which purpose and how often the target group use the social networks, and determine their intention and belief in using the Social Networks academically because beliefs of teachers also affect their classroom activities (Pajares, 1992).

The theories that examine the human behaviors were generally developed in the literature of psychology and have often been used in other academic disciplines (Gürol, 2008). The rapid entry of technology into our lives caused the appearance of new studies that research the technology usage tendencies of the individuals. One of the focuses of these studies is the professional use of technology and the intentions of the potential users. Technology Acceptance Model, (TAM) is a model that was produced by Davis (1989) to explain the professional usage of communication technologies and the acceptance of these technologies by the users. According to TAM2 (Figure 1), the intentions of individuals in using a system are affected by two factors: "perceived usefulness" which can be defined as degree of belief that using the system will increase the job performnace of a person, and "perceived ease of use" which includes the belief that to use that system needs no effort (Vankatesh and Davis, 2000). These two factors are also affected by the structures like social effect processes (subjective norm, voluntariness, and image) and instrumental processes (job relevance, result demonstrability and perceived ease of use) (Vankatesh and Davis, 2000).

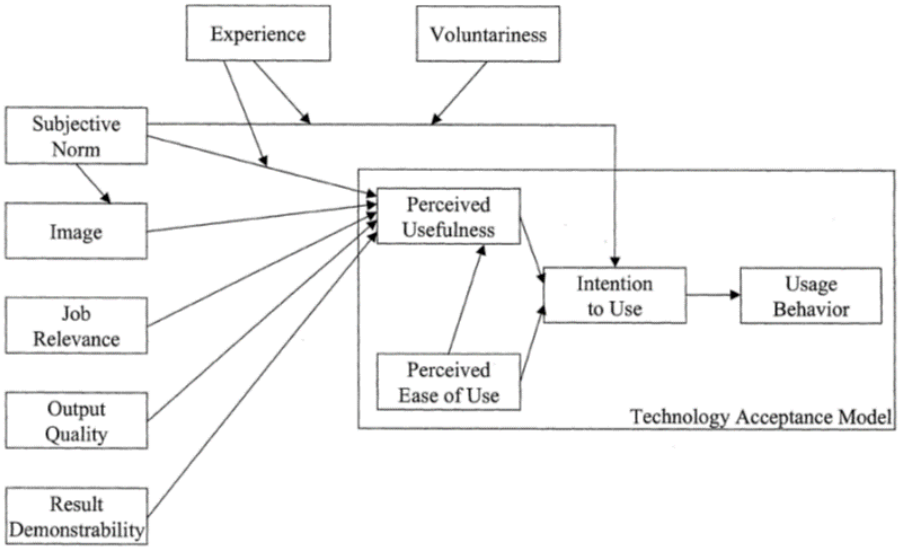

Figure 1. TAM2 (Vankatesh and Davis, 2000)

TAM studies found that different aspects (attitude, subjective norm, real usage, compatibility/suitability, exterior factors, etc.) have effect on technology acceptance, so these aspects were added to the model in time in order to increase its explanatory power (Legris, et. al, 2003). In this study, the subjective norm, which was added to the model, can be defined as ‘‘a person’s perception that most people who are important to him think he should or should not perform the behavior in question’’ (Fishbein and Ajzen, 1975; Ajzen, 2005). In short, TAM claims that it is the behavioral intention of the individual which determines whether the individual accepts or rejects to use the information technologies, in other words, the primary factor that determines the real usage is the behavioral intention of the individual, and that the behavioral intention of the individual has an important role on the individual’s tendencies towards the use (Gürol, 2008).

The aim of this study is to determine the technology usage intentions of the pre-service teachers and the factors affecting their perceptions of the usefulness of the technology usage in teaching activities in terms of social networks.

Method

This is a quantitative study. Survey method was used. Data were gathered via a questionnaire, developed by the researchers by using the Technology Acceptance Model 2 (TAM2; Venkatesh and Davis, 2000) during the 2014-2015 academic year.

Sample of Research

The research was carried out with 571 pre-service teachers that were studying in different teaching programs (teachers of secondary school physics, chemistry, math, biology; primary school, science and math; computer; pre-school; foreign language) in the city of Ankara. Demographic details of sample are shown in the Table 1.

Tablo 1. Frequency and Percentage of Demographic Characteristics of Sample

		f	**%**
Sex	Women	485	85
	Men	86	15
Grade level	1	122	21
	2	173	30
	3	113	20
	4	97	17
	5	66	12
Usage frequency of social networks	Never	14	2.5
	Rarely	15	2.5
	Few times a week	51	9
	Everyday	491	86
Aim of use	Communication, online chat	464	81
	Sharing (video, photo etc.) updating status and profile	359	63
	Spending time	359	63
	Educational purposes	313	55
	Checking what friends are doing	204	36
	Playing games	140	24
	Finding new friends	36	6
The most commonly used social network types	Facebook	534	93
	Twitter	330	58
	Instagram	327	57

	Tumblr	47	8
	WhatsApp	33	6
	Snapchat	31	6
	LinkedIn	23	4
	Foursquare	23	4
	Swarm	22	4
	Pinterest	7	1
	Flickr	6	1

Data Collection and Analysis

In the data collection of the research, the scale which was developed within the frame of TAM2 (Venkatesh and Davis, 2000) and adapted to Turkish by Acarlı and Sağlam (2015) was used. The scale which was prepared for use as a result of the adaptation studies consists of a total of 20 clauses from 7 dimensions as; intention (e.g.: *I am planning to use social media in my teaching activities*), subjective norm (e.g.: *The people whose opinions I valued expect me to use social media effectively during my teaching activities*), perceived ease of use (e.g.: *It is easy for me to carry out teaching activities on social media*), perceived usefulness (e.g.: *Using social media will improve my performance in teaching as a profession*), image (e.g.: *The teachers who use social media in their teaching activities will be more prestigious than those who do not*), job relevance (e.g.: *Using social media is important for my profession*) and demonstrability of the results (e.g.: *I think I will be able to see the results of using social media clearly*) .

To determine the technology usage intentions of the pre-service teachers and the factors that affect their perceptions of the usefulness of the use of technology, separate multiple regression analysis were carried out. Data were checked for the major assumptions of multiple regression analysis. The dimensions in the analysis and their relations were examined on the basis of TAM2 (Venkatesh and Davis, 2000). The technique of "Enter", in which all independent variables were modeled at the same time, was used in the analysis.

Findings

The average and reliability values that were calculated as a result of the Turkish adaptation study of the Technology Acceptance Model are given in Table 2. The average points of the dimensions vary between 3.33 and 3.76, and their reliabilities were between .66 and .90.

Table 2. The Average and Reliability Values for the Dimensions of TAM2

Dimensions	Mean	Reliability
Intention to Use	3.72	r=.66
Subjective Norm	3.40	α=.84
Perceived Ease of Use	3.58	α=.82
Perceived Usefulness	3.64	α=.90
Image	3.33	r=.66
Job Relevance	3.45	α=.85
Result Demonstrability	3.76	α=.73

When the double correlations between the variables of subjective norm, perceived usefulness and perceived ease of use are examined, it is seen that there are positive and high-level relations between these variables; but the partial correlation ratios which were calculated by the control of other variables were very low (Table 3). As a result of the regression analysis, together with the variables of subjective norm, perceived usefulness and perceived ease of use, there is a high level and significant relation with the technology usage intentions of the pre-service teachers (R=.81; R^2=.65; p=.000). These variables, all together, explain the technology usage intentions of the pre-service teachers to the extent of 65% (Table 3). The effect of each of these variables on the intention is significant ($p < 0.001$), and in order of importance they are lined up as; perceived usefulness (β=.39), perceived ease of use (β=.31) and subjective norm.

Table 3. The Results of the Multiple Regression Analysis Regarding the Evaluation of the Intention of the Technology Usage

Variable	B	Std. Error$_B$	β	t	p	Zero-order r	Partial r
Subjective Norm	.18	.039	.18*	4.74	.000	.66	.20
Perceived Usefulness	.42	.049	.39*	8.46	.000	.76	.33
Perceived Ease of Use	.35	.050	.31*	6.95	.000	.74	.28
R=.81; R^2=.65; F:346.87; p=.000							

* p < 0.001.

The results of the regression analysis are given in Table 4. The perceived usefulness, which is another assumption of TAM2, was explained by subjective norm, image, job relevance and demonstrability of the results and perceived ease of use. According to the findings, there are positive, high-level relations between these variables, which explain the perceived usefulness; however, when the other variables are taken under control, partial correlation ratios are very low. In other words, the relation between the variables is suitable for regression analysis. As a result of the analysis, it was seen that the variables in question were all together in high level and significant relation with the perceived usefulness towards the usage of technology (R=.90; R^2=.80; p=.000). These variables, all together, explain the 80% of the variance in the perceived usefulness towards the usage of technology (Table 4). The effect of these variables on the perceived usefulness in order is as; perceived ease of use (β=.32), image (β=.23), demonstrability of the results (β=.22), job relevance (β=.15) and subjective norm (β=.14) (Table 4).

Table 4. The Results of the Multiple Regression Analysis Regarding the Evaluation of the Perceived Usefulness Regarding Technology Usage

Variable	B	Std. Error$_B$	β	t	Zero-order r	Partial r
Subjective Norm	.13	.027	.14*	5.49	.71	.20
Image	.19	.021	.23*	7.04	.73	.35
Job Relevance	.13	.029	.15*	15.02	.76	.19
Result Demonstrability	.25	.034	.22*	11.69	.75	.30
Perceived Ease of Use	.33	.033	.32*	4.20	.81	.39
R=.90; R^2=.80; F:456.52; p=.000						

* p < 0.001.

The effect of the subjective norm, which is another assumption set forth by TAM2, on image, again was analyzed by regression analysis, and it was determined that the subjective norm explains 35% of the variance of image (r=.57; β= .59, p < 0.001; R=59, R^2=.35; F=301.51, p=.000). The model, which was prepared by considering the values obtained as a result of the regression analysis, is given in Figure 2.

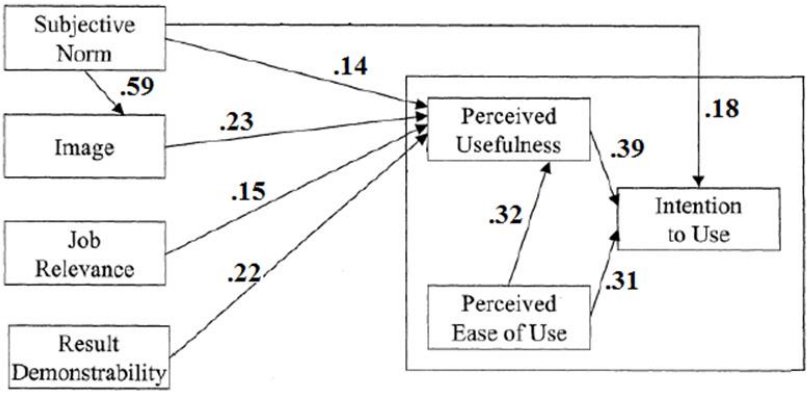

Figure 2. The relation between the dimensions of TAM2 (R^2=.65; Explains the intention of the usage of technology to the extent of 65%)

In summary, subjective norm, image, job relevance and result demonstrability, all together, explain the 80% of the variance in the perceived usefulness towards the usage of technology. Also, perceived usefulness, subjective norm and perceived ease of use explain the technology usage intentions of the pre-service teachers to the extent of 65% (Figure 2).

Results and Discussion

Today, it is already a must to regulate learning platforms in accordance with the conditions and expectations by reviewing the requirements of students and society. For the preparation of such teaching platforms, the students must be provided with opportunities to be able to use any kind of device that will enable the students to reach information; enable the use, production and transfer of the infor-

mation. Besides, the teachers are also expected to have certain abilities and be able to make use of technology (Akkoyunlu, 2002). Teachers' possessing the abilities of the effective use of the novelties brought by technology is necessary both in terms of improving themselves and preparing activities by following the advancements in their profession, and helping the students to acquire these abilities, as well as creating opportunities for the students to use these acquired abilities and organize platforms accordingly (Kaya and Durmuş, 2008).

The aim of this study is to determine the intentions of the usage of social networks and the factors that affect the perceptions about the usefulness of using social networks in teaching activities for pre-service teachers who study in different programs, when they start their professional lives when they carry out teaching activities. In the study which was carried out for this purpose, it was determined that TAM2 explains the intentions of the pre-service teachers' usage of social networks to the ratio of 65%. The subjective norm, image, job relevance and demonstrability of the results, which are the sub-dimensions of the model, have explained the perceived usefulness with the ratio of 80%. When the obtained results were compared with the study of Vankatesh and Davis (2000), it was seen that the explanation percentages of the model were higher. It is thought that this situation can stem from the fact that the homogeneities of the samples in the studies were different. Hence, while the sample of Vankatesh and Davis'in (2000) consisted of individuals working in four different firms and institutions, the samples of this study consisted of pre-service teachers studying in the same faculty. Besides, in the research of Legris, et. al (2003), which is one of the meta-analysis studies on TAM in the literature, while they are basing the reason for about 40% of explanation rate on the fact that the sample was usually chosen from the students, Schepersa and Wetzels (2007) have emphasized that the results in their studies differed because of the difference of measurement tools, and that when viewed from the perspective of student, teacher, and employees, TAM may show difference (qtd. Ursavaş, et. al, 2014). In this study, on the other hand, the usage of technology is examined regarding social networks. It is also thought that the frequent use of social networks in today's world may have an effect on the results.

When the results of the study are examined, it is seen that image is the most effective dimension in the perceived usefulness in the use of social networks by the pre-service teachers. This is followed, in order, by demonstrability of the results, job relevance, and subjective norm. Whereas, job relevance was determined as the dimension that explained the perceived usefulness to the highest ratio in the previous study (Vankatesh and Davis, 2000). In this respect, it can be commented as expectations of the people, whose views are valued by the pre-service teachers in general, are not important for the pre-service teachers in this case. Likewise, the relationship of the usage of social media with the profession is another dimension that has a minor effect on the perceived usefulness. Based on this finding, it can be said that the pre-service teachers do not directly associate the usage of social media in teaching activities with the profession. On the other hand, it also looks as if having prestige by using social media is important for pre-service teachers. This can also be explained by the popularity of the usage of social media.

When the relations between the main dimensions of the model are examined, the most explanatory variable that explained the intention of usage of social media was found as perceived usefulness. This is followed by perceived ease of use and subjective norm respectively. In this sense, the promoting of the perceived usefulness will be effective in increasing the intentions of social media usage of the pre-service teachers in teaching activities. In order to increase the perceived usefulness, on the other hand, awareness can be created in the pre-service teachers in terms of the least effective variables for this dimension (subjective norm and the job relevance). For this purpose, adding courses to the teaching programs that give information about the effective use of social media in teaching activities and including activities towards practice can be helpful.

It was determined that the demonstrability of the results, was the second most effective factor, after image, on the perceived usefulness. When the fact that the average of this dimension was also very high (M=3.76) is considered, it can be said that the pre-service teachers believe that they can explain the benefits of the usage of social media in teaching activities, see the results clearly and contact with their colleagues about this subject.

Conclusion

As in the whole world, in our country, the number of social networks web sites and the number of their users are increasing day by day. Although the web sites of social Networks can be used for different purposes, they also include lots of opportunities for education. As the social network sites are flexible and user-friendly, they can be used more easily compared to other systems of teaching management. The fact that many students and teachers can follow simple steps and create a group, share among themselves, provide many conveniences in terms of communication and feedback. In this sense, it is also beneficial for the teacher's process of teaching and evaluation. The fact that the social networks have many features and opportunities, is helpful for teachers to support their education and teaching processes with active, creative and cooperative learning; for increasing the interaction between students and teachers; for allowing the students to use and develop their skills of research, questioning, discussing, critical thinking and problem solving (Gülbahar, et. al, 2010).

The key word in social networks is "social content". Pictures, sound files, web addresses, videos, presentations, activity announcements or other media types can be given as examples of social contents. These contents can be used, shared or produced in accordance with the opportunities that are provided by the social networks (Conole and Culver, 2010). Thus, social networks can be used to share such materials, create visuals for learning, follow new information, and learn languages, create e-portfolios for learning and evaluating purposes and participate in the discussion platforms. In fact, there are examples in literature, in which students share pictures, messages, presentations, videos, homework and applications appropriate to the subjects, and social networks are used successfully for educational purposes (Haverback, 2009; Muñoz and Towner, 2009). Based on this research, new studies should be carried out for increasing the intentions of the usage of technology in teaching activities. As for increasing the intentions of the teachers in this subject, it will be beneficial to develop sample applications regarding the usage of technology for improving perceived usefulness and easiness and add related activities to the teaching programs.

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Genişletilmiş Özet

Bilgisayar ve internet ekseninde gelişen teknolojilerin bir sonucu olarak, insanların web temelli ortamlarda ve bu ortamlara erişebildikleri teknolojik araçlarla geçirdikleri süre gün geçtikçe artmaktadır. Bu sürenin çoğunluğunun hangi ortamda harcandığı sorusuna verilecek ilk yanıt hiç şüphesiz "sosyal ağlar" olacaktır.

Farklı amaçlara hizmet eden çok fazla sayıda ve türde olması, sosyal ağların kullanımlarını daha da arttırmakta; popülerliği ve kullanım kolaylığı, kullanıcıların sosyal ağlar arasında geçiş yaparak daha çok kullanıcı tarafından kullanılmasını sağlamaktadır. Yapılan araştırmalar, 16-24 ve 25-34 yaş arası kullanıcıların sosyal ağları en çok kullanan yaş grubu olarak ortaya çıkmaktadır. Dikkat edilirse bu yaş grupları lise öğrencileri, öğretmen adayları ve teknolojiye yatkınlıkları daha fazla olan öğretmenlerin bulunduğu yaş gruplarını içermektedir. Dolayısıyla sosyal ağlar, eğitim odağının merkezindeki üç grubun dâhil olduğu yaş grubu tarafından yoğun bir şekilde kullanılmaktadır. Bu kullanım oranının olumsuz yanları bir kenara bırakılırsa, bu ölçüde kullanılan ortak bir alanının öğrenciler ve eğitimciler tarafından da öğretim faaliyetlerinde kullanılması kaçınılmaz bir son olarak ortaya çıkmaktadır (Acarlı & Sağlam, 2015). Teknoloji ve ürünlerinin eğitim ve öğretimde kullanılması sadece öğrenciler açısından değil, eğitimciler açısından da önemli sonuçlar doğurmaktadır. Bu teknolojiler eğitimcilerin bilgiye ulaşma ve bunları öğrencileriyle paylaşma süresini kısaltmakta böylece eğitim süreci içindeki verimliliğin artmasını sağlamaktadır.

Hayatımız içinde bu kadar büyük bir role sahip olan sosyal ağların daha doğru, etkili ve öğretimsel amaçlar doğrultusunda kullanılabilmesi için araştırmalar yapılmaktadır. Bir diğer araştırma odağı da bireylerin teknolojiyi kullanma eğilimlerini araştıran çalışmalardır. Bu çalışmalarda teknolojinin mesleki anlamda kullanılması ve potansiyel kullanıcıların teknolojiyi kullanma niyetleridir. Teknoloji Kabul Modeli (Technology Acceptance Model, TAM) iletişim teknolojilerinin mesleki anlamda kullanılması ve kullanıcıların bu teknolojileri kabulünün açıklanması için Davis (1989) tarafından ortaya konmuş bir modeldir. Daha sonra Vankatesh ve Davis (2000) tarafından geliştirilerek TAM2'ye dönüştürülen bu modele göre bireylerin bir sistemi kullanma niyetleri iki değişken tarafından etkilenmektedir: Bir sistemin kullanıldığı zaman bireyin iş performansını arttıracağına yönelik inançtan yola çıkan "algılanan kullanışlılık" ve bu sistemi kullanmak için çaba harcamaya gerek duyulmayacağı inancını kapsayan "algılanan kolaylık" (Vankatesh & Davis, 2000).

Amaç

Bu çalışmanın amacı öğretmen adaylarının teknoloji kullanma niyetlerini ve öğretim faaliyetlerinde teknoloji kullanımının kullanışlılığına yönelik algılarını etkileyen faktörleri sosyal ağlar bağlamında belirlemektir.

Yöntem

Araştırma, Ankara İli'nde farklı öğretmenlik programlarında (ortaöğretim fizik, kimya, matematik, biyoloji öğretmenlikleri; ilköğretim sınıf, fen ve matematik öğretmenlikleri; bilgisayar öğretmenliği; okulöncesi öğretmenliği; yabancı dil öğretmenliği) öğrenim gören 571 öğretmen adayı ile gerçekleştirilmiştir. Araştırmada verilerin toplanmasında TAM2 (Venkatesh & Davis, 2000) çerçevesinde geliştirilen, Acarlı ve Sağlam (2015) tarafından Türkçe uyarlaması yapılan ölçek kullanılmıştır. Öğretmen adaylarının teknoloji kullanma niyetlerini ve teknoloji kullanımının kullanışlılığına yönelik algılarını etkileyen faktörleri belirlemek için ayrı ayrı çoklu regresyon analizleri yapılmıştır.

Bulgular

Teknoloji Kabul Modeli'nin Türkçe uyarlaması çalışmada yer alan boyutların ortalama puanları 3.33 ile 3.76 arasında; güvenirlikleri ise .66 ve .90 arasında değişmektedir. Yapılan regresyon analizi sonucu kişisel norm, algılanan kullanışlılık ve algılanan kolaylık değişkenleri birlikte öğretmen adaylarının teknoloji kullanma niyetleri ile yüksek düzeyde ve anlamlı bir ilişki vermektedir ($R=.81$; $R^2=.65$; $p=.000$). Bu değişkenler birlikte öğretmen adaylarının teknoloji kullanma niyetlerini %65 oranında açıklamaktadırlar. TAM2'nin diğer bir varsayımı olan algılanan kullanışlılığın kişisel norm, imaj, meslekle olan ilgi, sonuçların açıklığı/gösterilebilirliği ve algılanan kolaylık tarafından açıklanması durumu için yapılan regresyon analizi sonuçlarına göre değişkenlerin birlikte teknoloji kullanımına yönelik algılanan kullanışlılık ile yüksek düzeyde ve anlamlı bir ilişki verdiği görülmüştür ($R=.90$; $R^2=.80$; $p=.000$). Bu değişkenler birlikte teknoloji kullanımına yönelik algılanan kullanışlılıktaki toplam varyansın %80'ini açıklamaktadırlar. TAM2'nin öne sürdüğü bir diğer varsayım olan kişisel normun imaj üzerindeki etkisi de yine regresyon analizi ile incelenmiş olup kişisel normun imajın varyansının %35'ini açıkladığı belirlenmiştir

Tartışma ve Yorum

Elde edilen sonuçlar Vankatesh ve Davis'in (2000)'in çalışmasıyla karşılaştırıldığında modelin, boyutları açıklama yüzdelerinin daha yüksek olduğu görülmüştür. Bu durumun çalışmalardaki örneklemlerin homojenliklerinin farklı olmasından kaynaklanabileceği düşünülmektedir. Bunun yanında alanyazında TAM üzerine yapılan meta analiz çalışmalarından biri olan Legris, Ingham ve Collerette (2003) araştırmalarında, açıklama oranının neden %40 civarında kaldığını, ve bu durumu örneklemin genellikle öğrencilerden seçilmiş olmasına bağlarken Schepers ve Wetzels (2007) çalışmalarında kullanılan ölçme araçlarının farklılaşması sebebiyle sonuçların da farklılaştığını, TAM'ın öğrenci, öğretmen ve çalışanlar

açısından bakıldığında farklılık gösterebileceğini vurgulamışlardır (akt. Ursavaş, Şahin & McIlroy, 2014). Bu çalışmada ise teknoloji kullanımı, sosyal ağlar bağlamında incelenmiştir. Sosyal ağların günümüz dünyasında sık kullanılıyor olmasının da elde edilen sonuçlarda etkili olabileceği düşünülmektedir.

Araştırma sonuçları incelendiğinde, öğretmen adaylarının sosyal ağları kullanmalarında algılanan kullanışlılığı en çok etkileyen boyutun imaj olduğu görülmüştür. Bunu sırasıyla, sonuçların açıklığı/gösterilebilirliği, meslekle olan ilgi ve kişisel norm izlemektedir. Oysa daha önce yapılan çalışmada (Vankatesh & Davis, 2000) meslekle olan ilgi, algılanan kullanışlılığı en fazla açıklayan boyut olarak ortaya çıkmıştır. Bu durumda öğretmen adayları için görüşlerine önem verdiği insanların bu konudaki beklentilerinin önemli olmadığı yorumu yapılabilir. Benzer şekilde sosyal medya kullanımının meslekle olan ilgisi de algılanan kullanışlılığı az etkileyen bir diğer boyuttur. Bu bulgudan yola çıkılarak öğretmen adaylarının öğretim faaliyetlerinde sosyal medya kullanımını doğrudan meslekle ilişkilendirmedikleri söylenebilir. Diğer taraftan öğretmen adayları için sosyal medyayı kullanarak prestij sahibi olmak daha önemli gibi görünmektedir. Bu da yine sosyal medya kullanımının popülerliği ile açıklanabilir.

Modelin ana boyutları arasındaki ilişkiler incelendiğinde sosyal medya kullanımına yönelik niyeti en çok açıklayan değişken algılanan kullanışlılık olarak bulunmuştur. Bunu sırasıyla algılanan kolaylık ve kişisel norm izlemektedir. Bu durumda algılanan kullanışlılığın arttırılması, öğretmen adaylarının öğretim faaliyetlerinde sosyal medya kullanma niyetlerini attırmada etkili olacaktır.

Sosyal ağlarda anahtar kelime "sosyal içerik"tir. Bu içerikler, sosyal ağların sunduğu olanaklar doğrultusunda kullanılabilir, paylaşılabilir veya buralarda üretilebilir (Conole & Culver, 2010). Dolayısıyla sosyal ağlar bu tür materyalleri paylaşmak, öğrenme için görseller oluşturmak, yeni bilgileri takip etmek, dil öğrenmek, öğrenme ve değerlendirme amaçlı e-portfolyo oluşturulmak, tartışma ortamlarına dâhil olmak amacıyla kullanılabilir. Nitekim literatürde öğrencilerin konulara uygun resimleri, mesajları, sunuları, videoları, ödevleri ve uygulamaları paylaştığı sosyal ağların başarılı bir şekilde eğitim amaçlı kullanıldığı örnekler mevcuttur (Haverback, 2009; Muñoz & Towner, 2009). Araştırma sonuçlarından yola çıkılarak öğretim faaliyetlerinde teknoloji kullanım niyetinin arttırılmasına yönelik çalışmalar yapılmalıdır. Öğretmenlerin bu konudaki niyetlerini arttırmak için ise algılanan kullanışlılık ve kolaylığın arttırılması amacıyla teknolojinin öğretimde kullanılmasıyla ilgili örnek uygulamalar geliştirilmesi ve öğretim programlarına bununla ilgili etkinlikler eklenmesi faydalı olacaktır.