Turkish Prospective Teachers' Perceptions about Technology in Education

Öğretmen Adaylarının Eğitimde Teknoloji Kullanımına İlişkin Algıları

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ABSTRACT

The aim of this study was determined as to analyze technology perceptions of Turkish prospective teachers who are in different universities, in terms of university membership and learning style variables. In the study, survey method was utilized by applying Kolb Learning Style Inventory and Technology Perception Scale. The study comprised of 518 elementary school prospective teachers. As a result of the ANOVA application, it has been found that there is a statistically significant main effect for university membership while there is no significant main effect for learning style variable and there is no significant interaction between university membership and learning style variables.

Keywords: Technology perception, Learning styles, University membership.

ÖZ

Bu çalışmada, farklı üniversitelerde öğrenim gören öğretmen adaylarının, teknolojiye ilişkin algılarının, kayıtlı oldukları üniversite ve öğrenme stilleri açısından analiz edilmesi amaçlanmıştır. Araştırmada tarama yöntemi kullanılmıştır. Veri toplama araçları olarak Kolb Öğrenme Stilleri Envanteri ve Teknoloji Algısı Ölçeği kullanılmıştır. Çalışmaya 518 sınıf öğretmeni adayı katılmıştır. Veri analizi için kullanılan ANOVA uygulaması sonucunda, öğretmen adaylarının teknoloji algılarının, öğrenim gördükleri üniversiteler açısından anlamlı bir farklılık gösterdiği, öğrenme stilleri açısından ise istatistiksel olarak anlamlı bir farklılık göstermediği, üniversite ve öğrenme stilleri değişkenlerinin interaksiyonun da istatistiksel olarak anlamlı bir farklılık oluşturmadığı tespit edilmiştir.

Anahtar Kelimeler: Teknoloji algısı, Öğrenme stilleri, Üniversite üyeliği.

INTRODUCTION

Perception, as attaching personal meanings to internal and environmental inputs received through the senses and neural impulses, is crucial factor in processing of these inputs (Schunk, 2000). The perception on anything is influenced by many factors such as customs, habits, education and motivation about it (Thinkquest, 2007). Indeed, it is more true to say that there are correlations between perception and factors mentioned above. Because, the perception, as a personal frame, might conversely affect motivation, understanding, personal interpretations of something, attempts to do something which are important parts of habits and thoughts (Vaughan, 2007). The perception does not have unaffected characteristics from social life. The perceptions have been influenced by cultural and historical factors such as speech and tool use which are important social factors in social and personal development (Vygotsky, 1978). The perception about social events plays important role in the most significant parts of social changes. In addition, social changes are always related to technological developments; TV, computers, radio, mobile phone etc. are important examples to initiators and accelerators of social changes. Human being has perceptions about technology as well as social events. Therefore, determination of perception on technology in education is an important step for planning and implementing of technological means into classrooms or labs and evaluating integration of technology into any environment such as classrooms or laboratories as social events (İşman, 2003). In today's world of education, technological developments have many effects on various aspects of education. Successful integration of technology into learning and teaching processes might lead to enhanced learning outcomes (Cope & Ward, 2002). The perception of teachers has also been affecting students' approaches to teaching and learning and indirectly quality of learning and teaching outcomes (Trigwell, Prosser & Waterhouse, 1999). By considering students' learning outcomes and students' perceptions or approaches, impact of teacher's perception about technology on students' perceptions of or approaches to learning can be illustrated as a circular model in Figure 1.
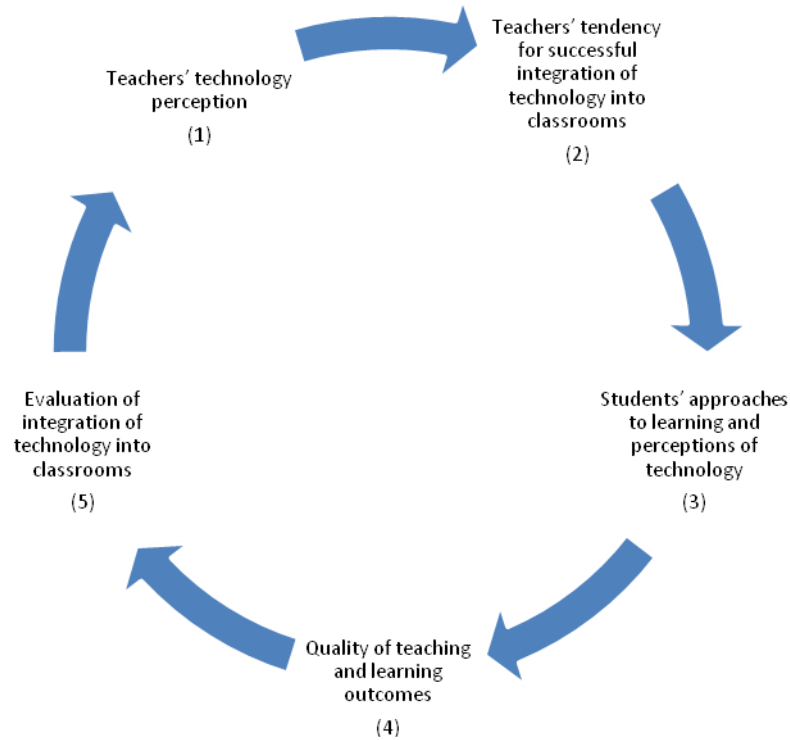
Figure 1. Relationship between teachers' perception of technology and students' learning outcomes.

Venkatesh, Morris, Davis, and Davis (2003) suggested eight elements that are effective in accepting technology, one of them included experiences regarding to technology. Pre-service years of teachers involve different courses focusing on technology, these courses provide experiences for their perception change and acceptance of technology. In spite of the courses and experiences, prospective teachers do not use computers as frequently as their experienced colleagues (Hadley & Sheingold, 1993; Sherwood, 1993). This situation might be related to perception differences. Prospective teachers' perceptions about technology are affected by some of variables. Two of the variables

that are the main points of this study are university membership variable and learning styles of prospective teachers. These two variables reflect one external (university membership) and one internal factor (learning styles) affecting learning in university. Studies indicated that learning styles are important to predict training (via computer, TV, technology or print based delivery) preference of individuals, technology use of education is also an alternative of preference on training and teaching (Buch & Bartley, 2002). Teachers are also affected by their training history. So teacher perception about use of technology as a teaching tool might be related to learning styles of them. At the same time, opportunity to reach and use technology in under-graduate years is another potential contributor of the perceptions of pre-service teachers on technology. Universities do not provide equal opportunity to their students in term of technology use, so difference among the universities should also be determined for understanding perceptions of pre-service teachers.

As the first variable, the learning style concept refers to individual differences with related to the learner's preferences for employing different phases of the learning cycle. With the effects of our hereditary characteristics, our experiences, and demands of our present environment, we might develop a preferred way of choosing among the four learning modes. We find and resolve the conflict between being concrete or abstract and between being active or reflective in patterned, certain and specific ways (Kolb & Kolb, 2005). If the learner is to be more successful in any field, he or she needs four different types of ability. These are classified as Concrete experience ability (CE), Reflective observations ability (RO), Abstract conceptualization ability (AC) and Active experimentation (AE). In consideration of these four concepts, for success, the learner is to be able to involve her or himself fully, openly and without bias in new experiences (CE). In addition, the learner must be able to observe and reflect on the experiences from different perspectives (RO) and to create concepts, ideas and thoughts that integrate her or his observations into logically certain theories (AC). As the last competence for success, the learner must be able to use these theories in problem solving process and to make decisions (AE) (Kolb,1981). By considering these abilities,

four types of learning styles were determined; the "diverging" including (CE) and (RO), the "assimilating" including (AC) and (RO), the "converging" including (AC) and (AE) and the "accommodating" including (CE) and (AE) (Kolb, Boyatzis & Mainemelis, 2001).

As the second variable, membership of a university where students experience some important events and activities which drive their attitudes, achievements and perceptions is another variable affecting perceptions of pre-service teachers. Every university of Turkey does not give equal importance for the education faculties due to funds, priorities, number of students and etc. At the same time, universities of Turkey have some differences such as lecturer characteristics with related to technology education, technology lab opportunities, numbers of computers, scores to enter to them and etc. The educational system of Turkey hopes technologically literate teachers from different universites at the same rate in spite of these differences in the universities (Asan, 2002; İşman, et al, 2003; Usun, 2004).

As there is a great knowledge increase in the world and usefulness of educational technology in classroom is supported by many studies, prospective teachers should have appropriate perceptions about technology for acceptance and successful implementation of it into educational aims. Perception about technology of prospective teachers may determine the tendency for use of technology by prospective teachers for educational aims. The determination of their perceptions in terms of various variables may provide a data set for finding appropriate way to educate them for their future teaching. The aim of this study is to assess the prospective teachers' perceptions about technology in terms of university membership and learning style variables.

METHOD

Participants

The study included 518 elementary prospective teachers who were enrolled in the different grades of four different faculties in 2006-2007 semesters. The elementary

teacher education in Turkey is a four-year program. The study nearly at same rate consisted of the prospective teachers who were at different grades. The number of participants for each grade were the following order; 119 for the first grade, 150 for the second grade, 110 for the third grade and 139 for the fourth grade. As 221 of the participants were male prospective teachers, 297 of the participants were female prospective teachers. In addition, the age range for the participants was from 18 to 25.

Instruments

The survey method was used for the study. To collect the data about learning styles, "Kolb's Learning Style Inventory" which was established on four fundamental quadrants including Accommodative, Divergent, Assimilative and Convergent, was used. This inventory was adapted to Turkish and, its validity and reliability was reevaluated by Aşkar and Akkoyunlu (1993). As a result, they found that it was valid and reliable for determining the learning styles in Turkish cases. This inventory has 48 items which are included in four main categories. Therefore, each style has 12 items. The time given for applying the inventory is 10 min. For each learning styles, the range for scores is from 12 to 60. So, the maximum total score for all items should be 120. One example for the items of the inventory is presented below;

When I learn, I learn by

......feeling

......watching

......thinking

......doing

As another data collection tool, "Technology Perception Scale" developed by Tınmaz (2004) was used for collection of data about prospective teachers' perception about technology. It is a five-point scale (Likert type). The scale has two factors; "belief of the positive effect of technology in education" (factor 1), "effects of undergraduate program" (factor 2). The values of the Cronbach Alpha of these factors were determined

as .89 for factor 1 and .81 for factor 2. The value of Cronbach Alpha coefficient for complete scale was calculated as .86 and split-half coefficient was .91. The scale has 28 items. The item examples for each factor of the scale are presented below;

Example 1. Using technology in classrooms increases learning level of the subject (Factor 1)

Example 2. The undergraduate level courses on technology I have taken, positively contribute to my teaching ability. (Factor 2)

Procedures

The study covered the prospective teachers who participated on a voluntary basis, they were from four different universities of Turkey; Karaelmas University (Northern Part) , Kırıkkale University (Middle Part), Cumhuriyet University (Eastern Part), and Kastamonu University (Middle Part) and Elementary Education Departments. These universities are nearly similar in terms of technology opportunities provided to their students. The "Kolb's Learning Style Inventory" and "Technology Perception Scale" were administered to the participants. Then, the data gathered from the study was entered into an SPSS sheet. The analysis for important descriptive values was carried out by considering the frequency, mean and standard deviation. After that, a 4x4 ANOVA design was conducted to evaluate the effects of membership to four different universities and four learning style types on the technology perception of the prospective teachers. Assumptions of the analysis were checked and found appropriate to go on. Post-hoc analysis was conducted by considering the Bonferroni approach to equal error variances across groups. Analysis frame includes two main analyses for learning style and university membership and one interaction analysis for Learning style and University Membership.

RESULTS

The results for descriptive analysis and ANOVA test are presented in this part of the article. The means and standard deviations for scores on "Technology Perception Scale" and frequencies in terms of four important variables; gender, home computer, competency and learning styles are presented in Table 1 and Table 2.

Table 1. Descriptives for Scores of Total Technology Perception in Terms of Gender, Having a Home Computer and Computer Competency Level

Technology Perception Scale Scores			
	Total		
Descriptive	n	M	SD
Gender			
Male	221	3.99	.48
Female	297	3.93	.47
Home Computer			
No	302	3.88	.48
With Internet	148	4.06	.42
Without Internet	68	4.04	.53
Competency			
Novice	82	3.70	.40
Intermediate	301	3.94	.46
Competent	135	4.15	.48
Total	518	3.95	.48

Table 2. Descriptives for Learning Styles of Prospective Teachers

Learning Styles of Participants			
Learning Styles	n	M	SD
Assimilative	213	4.02	.46
Divergent	134	4.05	.49
Convergent	93	3.87	.47
Accommodative	78	3.91	.49
Total	518	3.95	.48

For 4x4 ANOVA design, learning styles of the prospective teachers described as assimilative, divergent, convergent, and accommodative, and university membership variable of the prospective teachers determined as Karaelmas University, Kırıkkale University, Cumhuriyet University, and Kastamonu University were considered as the independent variables of the study. In addition, the scores of the prospective teachers on "Technology Perception Scale" were considered as the dependent variable of the study. The analysis model of the study is presented in Table 3.

Table 3. Design of the Study

Independent Variable	Value	Dependent Variable
University membership	ZKU / KU / CU/ KKU	Technology Perception Total Score
Learning Styles	Assimilative / Divergent/ Convergent / Accommodative	Technology Perception Total Score

The means and standard deviations for scores of the prospective teachers on "Technology Perception Scale" and frequencies as a function of the two factors are presented in Table 4.

Table 4. Means and Standard Deviations of Technology Perception Scores by University Membership (UM), Learning Styles of Prospective Teachers

UM	Learning Styles	N	Mean	SD
ZKU	Assimilative	76	3.92	.51
	Divergent	52	4.15	.44
	Convergent	21	3.96	.74
	Accommodative	24	4.04	.35
KU	Assimilative	43	3.99	.39
	Divergent	28	3.84	.49
	Convergent	32	3.79	.38

	Accommodative	17	3.87	.46
CU	Assimilative	40	3.94	.54
	Divergent	32	3.95	.41
	Convergent	21	3.85	.39
	Accommodative	21	3.80	.47
KKU	Assimilative	54	4.03	.46
	Divergent	22	4.05	.46
	Convergent	19	3.96	.32
	Accommodative	16	3.89	.70
Total		518	3.95	.48

ZKU: Zonguldak Karaelmas University, KU: Kırıkkale University, CU: Cumhuriyet University, KKU: Kırıkkale University

The ANOVA indicated no significant interaction between university membership and learning styles, $F(9, 502)= 1.09$, $p= .37$, partial $\eta^2= .02$, no significant main effect for learning styles, $F(3, 502)= 1.22$, $p= .30$, partial $\eta^2= .01$ and but a significant main effect for university membership variable, $F(3, 502)= 2.65$, $p= .05$, partial $\eta^2= .02$. Post-hoc test (Benforroni) showed significant differences between the scores of students in Kastamonu University and in Cumhuriyet University in favor of the students in Cumhuriyet University ($p<.05$). The Post-hoc test also revealed that there is a signficant difference between the scores of students in Kırıkkale University and in Karaelmas University in favor of the scores of the students in Karaelmas University ($p<.05$). The findings on the comparisons are presented in table 5.

Table 5. The Results of Total Analysis of Technology Perception Scores by University Membership (UM), Learning Styles of Prospective Teachers

Source of Variance	SS	df	MS	F	p
Learning style	.82	3	.27	1.22	.30
University membership	1.78	3	.60	2.65	.05*
Learning style * University Membership	2.20	9	.24	1.09	.37

*.05

The main effect of university membership indicated that the prospective teachers at different universities tended not to have equal positive perception for technology in education. The main effect of learning styles indicated that the prospective teachers at any level of learning styles did not tend to have greater positive perception for technology in education than the others. Overall, the 4x4 ANOVA indicates no significant difference between the perceptions of the prospective teachers who were enrolled in different universities and had different learning styles.

DISCUSSION and CONCLUSION

In this study, the perceptions of prospective teachers about technology in education were analyzed in terms of different variables; learning styles and university membership. According to results of this study, it was seen that 41.12 % of prospective teachers had assimilative, 25.87 % of prospective teachers had divergent, 17.95 % of prospective teachers had convergent and 15.06 % of prospective teachers had accommodator learning style. In her study consisted of 202 participants, Hasırcı (2006) determined that 41.1 % of prospective teachers had assimilative, 33.2 % of prospective teachers had divergent, 17.3 % of prospective teachers had convergent and 8.4 % of prospective teachers had accommodator learning style. This result was consistent with the findings of this study in terms of the order of style dominancy. After the determination of learning styles of prospective teachers, result of two-way ANOVA showed that there is no significant difference between the scores on the perceptions of prospective teachers who had different learning styles after total score analysis (p>.05). As a result, it was found that the perception levels of prospective teachers about technology in education would be same for prospective teachers who have assimilative, accommodative, convergent, divergent learning styles. This result might be explained by previous educational histories of and examinations taken by them and common educational environment and events shared by them. Before the university education, they were enrolled in similar context during the high school education. As related to this, they did not take any course regarding to technology in education. This might be a

factor for determining no difference between scores of them on technology perception in education. At the same time, the examinations taken by them and their results on these examinations for entering teacher education program were same or similar to each other. In the examinations, there is no questions for evaluation of technology competency. This might be an important factor for similarity of their expectations and perceptions about technology. In addition to these, common educational environment and events shared by them in university may be effective factor in their perceptions. For example; lecturer or model person with related to technology courses in university might construct general perception about technology because of his or her approach to course (Al-Ruz & Khasawneh, 2011; Dawson & Rakes, 2003). and students or there might be many problems about technology opportunities such as not having enough computer in lab.

When looked at the results of this study in terms of university membership, it was seen that 33.40 % of prospective teachers were at Karaelmas University , 23.17 % of prospective teachers were at Kastamonu University, 22.01 % of prospective teachers were at Cumhuriyet University, and 21.43 % of prospective teachers were at Kırıkkale University. When the means of the scores of students at different universities are considered, the mean of technology perception scores of the students who are at ZKU and KKU are higher than scores of the students who are at CU and KU. According to the result of two-way ANOVA, there was a significant difference between scores on the perceptions about technology in education of prospective teachers who were at different universities for total scores ($p<.05$). In fact the scores of the all participants are high enough (3.95/5) and the highest scores belong to the students in Karaelmas University. This might be related to feelings about competency, majority of the students feel competent or intermediate about using technology (Koksal & Yaman, 2009; Brubaker, 2004). The results indicated that the students in Cumhuriyet University had more positive perceptions regarding to technology than the students in Kastamonu University. Similarly, the students in Karaelmas University had more positive perceptions regarding to technology than the students in Kırıkkale University. The differences might be

related to opportunity differences in accessing technology in faculties and lecturer background giving technology courses. This point is opent to research in future. Lastly, the results of the study showed that there is no interaction between learning styles and university membership of prospective students on total technology perception scores of prospective students. This result might be related to common application in tech-related labs, common learning opportunities (giving handouts and making ordinary practices in courses) and fixed content about technology in education faculties of different universities. No interaction between these two aspects shows universities provide similar opportunites to apply learning styles. The "educational technologies" and computer lab courses include limited applications on MS word, power point, paint and etc. At the same time, these technology-related applications are limited to these courses. The students sometimes might not find any computer to study on applications out of lab. This general issue is common problem of Turkish universities. The academic specialists on technology-related courses are very few in Turkish universities. Only limited number of the universities find an expert on educational technologies. These common problems and events might provide general point of view about technological equipments and applications in university.

SUGGESTIONS

In educational settings for future, technology-based approaches will probably become predominant in teaching and learning processes. So, selection and application of appropriate technology in education will be important teacher competencies. Perceptions of teachers about technology in education will determine their tendencies to appropriate use of technology in education and programs' contents prepared for giving the competencies to teacher for future. In addition, it might be expected that prospective teachers who have more positive perception about technology in education will provide more effective technology use for learning and teaching. According to results of this study, prospective teachers who have different learning styles with related to Kolb's learning styles have same perceptions about technology in education, but other

approaches for learning styles might provide cues for determining the difference between perceptions about technology in education of prospective teachers. Therefore, perception differences of prospective teachers about technology in education should be examined in terms of other learning style approaches. In addition, learning style based technology classification for education should be done for effective technology use in education.

The result for university membership of prospective teachers showed that university membership of prospective teachers did give significant difference on point of view about technology to them. For the difference between the students in CU and KU, unequal distribution of frequencies on divergent and convergent styles should be examined by focusing on these two styles. According to this result, the studies on perception differences of Turkish prospective teachers should be extended and the universities should be analyzed in terms of technological opportunities, applications, context and profiles of them in terms of specialists on technology-related teaching. The universities should be classified for the state in terms of technology and should be analyzed to get information about these problems.

As a last point, for providing more positive perception about anything, firstly, the clear description of anything should be given, because sometimes uncertainty might be basic for more negative perception about anything. After this main point, other applications and activities should be carried out.

ACKNOWLEDGEMENTS

REFERENCES

Al-Ruz, J. A., & Khasawneh, S. (2011). Jordanian pre-service teachers' and technology integration: A human resource development approach. *Educational Technology & Society*, *14*(4), 77-87.

Asan, A. (2002). Attitudes of prospective science and social studies teachers toward computers. *Educational Research Journal. 7(1),* 136-146.

Aşkar, P., & Akkoyunlu, B. (1993). Kolbs' learning styles inventory. *Education and Science, (87)*, 37-47.

Brubaker, D.D. (2004). *An assessment of technology learning styles, skills, and perceptions among teachers of grades prekindergarten through four*. Unpublished doctoral thesis, University of North Texas, Texas.

Buch, K., & Bartley, S. (2002). Learning style and training delivery mode preference, *Journal of Workplace Learning, 14*(1), 5-10.

Cope, C., & Ward, P. (2002). Integrating learning technology into classrooms: The importance of teachers' perceptions. *Educational Technology & Society, 5*(1), *67-70.*

Dawson, C., & Rakes, G. C. (2003). The influence of principals' technology training on integration of technology into schools. *Journal of Research on Technology in Education,* 36(1), 29-49.

Hadley, M., & Sheingold, K. (1993). Commonalties and distinctive patterns in teachers' integration of computers. *American Journal of Education, 101*, 261-315.

Hasırcı, K. Ö. (2006). Learning styles of prospective primary school teachers: The Çukurova University case. *Journal of Theory and Practice in Education, 2*(1), *15-25.*

İşman, A. (2003). Technology. *The Turkish Online Journal of Educational Technology, 2*(1), 5.

İşman, A., Çağlar, M., Dabaj, F., Altınay, F., & Altınay, Z. (2003). *Attitudes of students toward computers.* III. International Educational Technology Conference and Fair 28-29-30 May 2003 Eastern Mediterranean University Gazimagusa, Cyprus.

Kolb, D. A. (1981). Learning styles and disciplinary differences. In A. W. Chickering & Associates (Eds.), *The Modern American College*. San Francisco: Jossey-Bass.

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001*). Experiential learning theory: Previous research and new directions.* In R. J. Sternberg & L. Zhang (Eds.), *Perspectives on thinking, learning, and cognitive styles. The educational psychology series* (pp. 227-247). Mahwah, NJ: Lawrence Erlbaum Associates.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education*, *4*(2), 193-212.

Koksal, M. S. & Yaman, S. (2009). An Analysis of Turkish Prospective Teachers' Perceptions about Technology in Education. *RELIEVE*, *15*(2),1-10.

Schunk, D. H. (2000). *Learning theories: An educational perspective*. New Jersey: Prentice-Hall.

Sherwood, C. (1993). Australian experiences with the effective classroom integration of information technology: Implications for teacher education. *Journal of Information Technology for Teacher Education 2*, 167-179.

Thinkquest, (2007). *General learning concepts*. Retrieved 20 February, 2007 from http://library.thinkquest.org/C005704/content_hwl_glc.php3#anchor5.

Tınmaz, H. (2004). *An assessment of preservice teachers' technology perception in relation to their subject area* (Unpublished Master Thesis). Middle East Technical University, Ankara.

Trigwell, K., Prosser, M., & Waterhouse, F. (1999). Relations between teachers' approaches to teaching and students' approaches to learning. *Higher Education*, *37,* 57-70.

Usun, S. (2004). Factors affecting the application of information and communication technologies (ICT) in distance education. *Turkish Online Journal of Educational Technology, 5*(1), Retrieved August 31, 2007, from http://www.tojet.sakarya.edu.tr.

Vaughan, P. (2007). *The "power of perception"*. Retrieved January 25, 2007 from http://www.dearpeggy.com/com035.html.

Venkatesh, V., Morris, F., Davis, A., & Davis, A. (2003). User acceptance of information technology: Toward a unified view.*MIS Quarterly*, *27*, 425-478.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

GENİŞ ÖZET

Algı, duyular ve nöral impulslar aracılığıyla alınan içsel ve dışsal girdilere bireysel anlamlar yükleme işlemidir. Algılar alınan gidilerin işlenmesinde önemli bir bileşendir. Öğretimin temel yürütücüsü olan öğretmenlerin öğretim unsurlarına ilişkin algısı da bu unsurlara ilişkin bilginin işlenmesinde ve kullanılmasında oldukça etkilidir. Olumlu bir algıyla teknolojinin eğitim ortamlarına başarılı bir şekilde entegrasyonu, öğrenme çıktılarında artışa neden olmaktadır (Cope & Ward, 2002). Bir öğretim unsuru olan teknolojik uygulamalara ilişkin öğretmen algılarının bu teknolojinin kullanımının planlaması ve yürütülmesinde etken olduğu belirtilmektedir (İşman, 2003). Öğretmenlik mesleğine başlamadan önce olumlu bir algı oluşumu ve sonrasında teknolojik uygulamların faydalarından yararlanma öğretimde teknoloji kullanımının verimliliğini arttırması beklenmektedir. Ülkemizde öğretmen eğitimi düzeyinde teknoloji algısının olumlu yönde değiştirilmesi için yapılandırılacak programlar, teknoloji algısıyla ilişkili olabilecek değişkenlerin araştırılmasını gerektirmektedir. Bu çalışmada, farklı üniversitelerde öğrenim gören öğretmen adaylarının, teknolojiye ilişkin algılarının, öğretim gördükleri üniversite ve öğrenme stilleri açısından analiz edilmesi amaçlanmıştır. Araştırmada nicel araştırma yöntemlerinden tarama yöntemi kullanılmıştır. Veri toplama araçları olarak Kolb Öğrenme Stilleri Envanteri ve Teknoloji Algısı Ölçeği kullanılmıştır. Çalışmaya 518 sınıf öğretmeni adayı (221 erkek, 297 kız) katılmıştır. Bu adaylardan 119'u birinci, 150'si ikinci, 110'u üçüncü ve 139'u dördüncü sınıf öğrencileridir. Veri analizi için kullanılan 4x4 ANOVA uygulaması yapılmıştır. Sonuçta öğretmen adaylarının teknoloji algılarının, öğrenim gördükleri üniversiteler açısından anlamlı bir farklılık gösterdiği, öğrenme stilleri açısından ise istatistiksel olarak anlamlı bir farklılık göstermediği belirlenmiştir. Ayrıca üniversite ve öğrenme stilleri değişkenlerinin interaksiyonunda istatistiksel olarak anlamlı bir farklılık olmadığı tespit edilmiştir. Bu sonuçlardan farklı üniversitelerdeki farklı teknoloji algısının üniversitelere ilişkin çeşitli değişkenlerin farklılıklardan kaynaklandığı, bu farklılıklara ilişkin değişimin gelecekteki çalışmalarda ele alınması gerektiği söylenebilir.