

# ULUSLARARASI SOSYAL ARAŐTIRMALAR DERGİSİ THE JOURNAL OF INTERNATIONAL SOCIAL RESEARCH

Uluslararası Sosyal Arařtırmalar Dergisi / The Journal of International Social Research  
Cilt: 13 Sayı: 73 Ekim 2020 & Volume: 13 Issue: 73 October 2020  
www.sosyalarastirmalar.com Issn: 1307-9581

## INVESTIGATION OF THE RELATIONSHIP BETWEEN PRIMARY SCHOOL TEACHERS' INITIAL LITERACY SELF COMPETENCIES AND ATTITUDES TOWARDS COMPUTER AIDED

### SINIF EĐİTİMİ ÖĐRETMEN ADAYLARININ İLK OKUMA YAZMA ÖZ YETERLİLİKLERİ İLE BİLGİSAYAR DESTEKLİ EĐİTİME İLİŐKİN TUTUMLARI ARASINDAKİ İLİŐKİNİN İNCELENMESİ

Sevil BÜYÜKALAN FİLİZ\*  
Osman GEDİK\*\*  
Mustafa EROL\*\*\*

#### Abstract

In this study, it is aimed to examine the relationship between pre-service teachers' attitudes towards literacy and their attitudes towards computer-aided education. The research was carried out with a relational screening model. In the 2017-2018 academic years, 299 pre-service teachers who were educated in Istanbul, Yozgat and Denizli and who were selected by easily accessible sampling method were formed. In the study, the data were obtained through the scale of first reading and writing self-efficacy scale and the attitude scale related to computer-aided education. Simple Linear Regression Analysis and Pearson Moments Product Correlation Analysis were used to analyze the data. According to the findings of the study, there was no significant relationship between the first literacy self-efficacy of the pre-service teachers and their attitudes towards computer-aided education according to the gender factor. In addition, when the results of regression analysis between the attitudes of the classroom education teachers towards computer-assisted education and the first literacy self-efficacy were examined, it was found that there were significant relationships and a positive low level relationship was found between the first literacy self-efficacy subscales and the attitudes towards computer-aided education.

**Keywords:** Self-Efficacy, Attitude, Computer-Aided Education

#### Öz

Bu arařtırmada sınıf öđretmenliđi öđretmen adaylarının ilk okuma yazma öz yeterlilikleri ile bilgisayar destekli eđitime iliŐkin tutumları arasındaki iliŐkinin incelenmesi amaçlanmıŐtır. Arařtırma nicel arařtırma yöntemlerinden iliŐkisel tarama modeli ile yürütülmüŐtür. Çalışanınun katılımcılarını 2017-2018 eđitim-öđretim yılında İstanbul, Yozgat ve Denizli'de öđrenim gören ve kolay ulařılabilir örnekleme yöntemi ile seçilen 299 öđretmen adayı oluŐturmuŐtur. Arařtırmada veriler, ilk okuma ve yazma öz yeterlilikleri ölçeđi ile bilgisayar destekli eđitime iliŐkin tutum ölçeđi aracılıđıyla elde edilmiŐtir. Arařtırmada elde edilen verilerin analizinde Basit Doğrusal Regresyon Analizi ve Pearson Momentler Çarpımı Korelasyon Analizi kullanılmıŐtır. Arařtırma bulgularına göre, sınıf öđretmeni adaylarının ilk okuma yazma öz yeterlilikleri ile bilgi-sayar destekli eđitime iliŐkin tutumlarının cinsiyet faktörüne göre anlamlı bir iliŐkiye rastlanmamıŐtır. Ayrıca sınıf öđretmenliđi öđretmen adaylarının bilgisayar destekli eđitime iliŐkin tutumları ile ilk okuma yazma öz yeterlilikleri arasındaki regresyon analizi sonuçları incelendiđinde anlamlı iliŐkiler olduđu ve ilk okuma yazma öz yeterlilikleri alt boyutları ile bilgisayar destekli eđitime iliŐkin tutum arasında pozitif yönde düşük düzey bir iliŐki olduđu belirlenmiŐtir.

**Anahtar Kelimeler:** Öz Yeterlilik, Tutum, Bilgisayar Destekli Eđitim

\*Gazi Üniversitesi, Eđitim Fakültesi, Eđitim Bilimleri Bölümü, Eđitim Bilimleri ve Öđretimi Anabilim Dalı, ORCID: 0000-0002-4955-4405, sevilb@gazi.edu.tr

\*\*Niđe Ömer Halis Demir Üniversitesi, Eđitim Fakültesi, Temel Eđitim Bölümü, Sınıf Eđitimi Anabilim Dalı, ORCID: 0000-0002-6362-7607, osmangedik@ohu.edu.tr

\*\*\*Yıldız Teknik Üniversitesi, Eđitim Fakültesi, Temel Eđitim Bölümü, Sınıf Eđitimi Anabilim Dalı, ORCID: 0000-0002-1675-7070, merol@yildiz.edu.tr



## 1. INSTRUCTION

The skill of reading and reading comprehension is one of the most important skills that make an individual successful throughout his life, from the first years of learning. Individuals provide their interpretation skills with reading in order to decode a fact or a code throughout their lives. Reading is the first step in learning and explanation. Initial reading and writing instruction is the first step in which the student begins to gain the reading skill formally by planning the reading teaching activities with what the student brings to the reading environment. Students spend most of their time reading and learning the information presented in the texts throughout their school years, starting from their primary school years (Ateş, 2011). The individual creates a life purpose for himself by using his learning skill. Reading, which is related to cognitive level skills, is a skill that directly affects academic achievement and learning processes (Calhoun, 2005). Since reading is the most important skill used in all lessons, it is inevitable for an individual, who has sufficient reading skills, to be successful in other lessons. Because the individual who cannot acquire reading skills not only fails at school, but also affected in his social relations negatively and cannot be noticed in the society as an entrepreneur who lacks self-confidence and who cannot be productive. From this point of view, it is possible to express reading as the activity as extracting meaning from written symbols through the study of cognitive behaviors and psychomotor skills (Razon, 1980). Today, we can define the reading as the process of making sense in a regular environment, based on an effective communication between author and reader, in which preliminary information is used, in accordance with an appropriate method and purpose, and reconstruction of meaning by synthesizing information beforehand (Akyol, 2015; Güneş, 2014). In its most general sense, reading can be defined as the process of making sense of writing and symbols through mental processes.

National and international level studies show that students studying in Turkey in primary and secondary levels indicate that some deficiencies in terms of reading skills. The self-efficacy of primary schoolteachers in the first literacy teaching process is one of the most important factors affecting student success. Because the subject of self-efficacy in education includes not only students but also teachers (Suchunk, 2009). Teachers who have high self-efficacy and self-confidence both improve students' cognitive memory and raise students with self-confidence in terms of being role models for the students. Self-efficacy is the most important factor regulating an individual's behavior (Luszczynska, Scholz, & Schwarzer, 2005). The higher the self-efficacy of individuals, the broader their perspective on life will be, so the society will attain the individual model it needs. Teachers who are tasked with providing individuals with literacy skills should have a good level of knowledge and skills regarding teaching reading and writing (Akyol, 2015). Teacher competence is defined as the belief in the degree to which the teacher can affect the performance of the student and the knowledge, skill, and attitude that must be possessed in order to fulfill the teaching profession efficiently (Guskey, 1986; MEB, 2008). Bandura (1997) stated that individuals who have strong self-efficacy beliefs do not escape from the experiences they have just encountered and have to struggle with and that they behave quite determined to successfully complete their actions. Based on this, it can be stated that teachers with high self-efficacy perception will have high confidence in their teaching abilities. In other words, it has been observed that teachers with high self-efficacy perceptions establish a positive relationship with students who have difficulties in the classroom (Podell & Soodak, 1993). Therefore, the perception of self-efficacy, which is one of the conditions that affect students' academic achievement the most, expresses teachers' confidence in their knowledge and skills.

The use of computers, which is one of the technological inventions of our age, by teachers in the classroom environment is one of the skills that constitute teacher self-efficacy (Gedik, Sönmez, & Yeşiltaş, 2019). A computer is a tool that has a positive effect on permanence due to the use of the eye and ear, which are the sensory organs that contribute the most to learning due to both audios, visuals, and activities. In addition, having the feature of learning by doing in activities performed using computer technologies positively affects learning. There is no information that teachers cannot be reached thanks to the use of the internet network at the same time as the computer. The internet is one of the most used resources for primary schoolteachers and primary school pre-service teachers to obtain information (Başaran, 2014).

It was emphasized that attitudes are one of the most important factors in raising the awareness of teachers and pre-service teachers about computer-aided education and being successful in their duties (Shashaani, 1997). The attitudes constitute feelings and beliefs about the individual's permanent or temporary assumptions about the world, expectations from other people, values and perspectives, and what is right and what is wrong, and what to approach and why. Attitudes show our tendency



towards acceptance and rejection of objects, ideas, and groups, and our feelings for and against them (Gay & Airasian, 2000). Attitudes are one of the most important factors in the success of teachers and pre-service teachers in computer-aided education as in all subjects in the life of the individual (Kutluca & Ekici, 2010). It will be seen that primary school teacher's attitudes towards computer-aided education will indirectly increase students' learning diversity and are one of the most important factors affecting comprehension in general.

When the literature is examined, computer-assisted education is the use of computers as an aid to educators in order to enrich their educational activities and to increase their quality (Akkoyunlu, 1998). In computer-aided education, the educator can use the computer according to the characteristics of the subject and the student, as it offers an important opportunity to repeat the course for students who missed the lesson and did not understand it. In addition, it can be used to provide private teacher service to the student, to make the assessment at the end of the lesson, to carry out the application and research studies, and to enable the students to make self-assessment by counseling the teacher (Demirel, 2005).

### **Purpose of the study**

When the domestic literature is examined, it is seen that there are studies on the perceptions of pre-service teachers' self-efficacy (Akar, 2008; Bıkmaz, 2002; Kurtuluş & Çavdar, 2010; Yıldırım & Ateş, 2016) and their attitudes towards computer-aided education (Arslan, 2006; Gedik, 2017; Gedik, Sönmez and Yeşiltaş, 2019; Kahraman, 2013; Kutluca & Ekici, 2010). However, no study was found to examine first literacy teaching self-efficacy and attitudes towards computer-aided education of primary school teachers. In this study, based on the view that self-efficacy beliefs affect the attitudes of the individual throughout his life, it is aimed to examine the relationship between the first literacy teaching self-efficacy of primary schoolteachers and their attitudes towards computer-assisted education. In line with the purpose of the study, the problem sentence of the research determined as "Is there a significant relationship between the first literacy teaching self-efficacy of the primary school pre-service teachers and their attitudes towards computer assisted education?" When the literature is examined, it is seen that pre-service teachers' attitudes towards computer-aided education are intensely examined, but first reading and writing teaching self-efficacy studies are limited. In this respect, it is hoped that the study findings will shed light on the future studies.

In line with the purpose of the study, answers were sought for the following sub-problems.

- Is there a significant difference between the first literacy teaching self-efficacy and the attitudes towards computer-aided education of the primary school pre-service teachers according to the gender variable?
- How is the relationship between primary school pre-service teachers' first literacy teaching self-efficacy and their attitudes towards computer-aided education?
- Do primary education pre-service teachers' first literacy teaching self-efficacy predict their attitudes towards computer-aided education?

## **2. METHOD**

### **Research Model**

This study was conducted within the scope of relational survey research, one of the quantitative study designs. Studies that examine the relationships and connections between different variables are called relational research (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2017). Studies, which are made for the search of the participants' opinions or interests, skills, abilities, attitudes, etc. on a topic or event, and where the characteristics are determined generally on larger samples than other studies, are called survey research (Büyüköztürk, 2016). Survey studies can be examined in two ways, cross-sectional and longitudinal. This study was conducted within the scope of cross-sectional survey research. Christensen, Burke Johnson & Turner (2015) defined the data of cross-sectional survey research as a single data collected from the participants in the sample in a relatively short time. In this study, since the relationship between the first literacy teaching self-efficacy of primary school pre-service teachers and their attitudes towards computer-assisted education was examined, the study was conducted in the relational survey model.



### Research Participants

The research was conducted with the criterion sampling method, one of the purposeful sampling types. The basic understanding of this sampling method is to meet all situations that meet a predetermined set of criteria (Yıldırım & Şimşek, 2016). In this direction, the criteria of the research are determined as follow;

- Pre-service teachers taking the first reading and writing course in the primary schoolteacher education undergraduate program,
- Identified as pre-service teachers who have taken computer skills courses in the undergraduate program.

### Data Collection Tools

The research data were collected by using the "Personal Information Form" created by the researcher, the "Self-Efficacy Scale for Teaching First Reading and Writing" developed by Delican (2016), and the "Attitude Scale for Computer Supporting Education" developed by Arslan (2006).

**Self-Efficacy Scale for Teaching First Reading and Writing:** The "Self-Efficacy Scale for Teaching First Reading and Writing" developed by Delican (2016) was used as a data collection tool. The items of the scale were prepared by the researcher by scanning the relevant literature and taking the opinions of the pre-service teachers. A total of 52 items were determined in the draft created. The scale was applied to 292 pre-service teachers studying at Gaziosmanpaşa and Cumhuriyet University Faculty of Education, Department of Primary School Education, and exploratory factor analysis was performed. At the end of the application, it was reduced to 25 items and these items were grouped in 3 sub-dimensions (preparation, application, evaluation). While the Cronbach-Alpha reliability coefficient for the whole scale is .90, it is seen that the Cronbach's alpha reliability coefficients for each sub-dimension of the scale vary between .77 and .90. Confirmatory factor analysis of the scale was performed and the 3-factor structure was confirmed as a result of the analysis. As a result of the factor analysis, it was determined that the scale measured the perception of self-efficacy towards literacy teaching validly and reliably.

**Attitude Scale for Computer Supporting Education:** The "Attitude Scale for Computer Supporting Education" developed by Arslan (2006) was used as another data collection tool. The items of the scale were obtained by benefiting from the opinions of the pre-service teachers and the related literature. The draft structure of the scale was determined as 41 items. The scale was applied to 151 pre-service teachers from Hacettepe University Faculty of Education, Department of Primary School Education. As a result of factor analysis, the scale was determined as 20 items. 10 of these items show positive and 10 negative features. The Kaiser-Meyer-Olkin (KMO) coefficient of the scale was found as 0.88, and the Bartlett Test significance value was found as 0.000. For the reliability study of the scale, the Cronbach-Alpha reliability coefficient was found as .93. When the structure of the scale is examined, it is seen that it will measure the attitude towards computer-assisted education in a valid and reliable way.

### Data Collection Process

The data in the study were obtained from universities in Istanbul, Yozgat, and Denizli. Pre-service teachers participating in the study were determined according to volunteering. A total of 317 pre-service teachers were reached in the study. Students who were not volunteers and did not answer the questionnaires or gave the same answers more than once were not included in the study. At the end of the data collection process, 299 pre-service teachers formed the study group of the research.

### Analysis of Data

Before starting the analysis of the data obtained in the study, the kurtosis and skewness coefficients were examined to determine whether the data were normally distributed. It was determined that the Self-Efficacy Scale for Teaching First Reading and Writing ranged from -.36 to -.07, and the Attitude Scale for Computer Supporting Education ranged from -.42 to -.05. Fidell and Tabachnick (2015) state that kurtosis and skewness values between -1.5 and +1.5 will satisfy the normality. In line with this criterion, it is possible to say that the data sets to be used in the study show normal distribution. In this direction, Simple Linear Regression Analysis and Pearson Product Moment Correlation Analysis were used in the study.





### 3. FINDINGS

In this study, it is aimed to examine the relationship between pre-service teachers' attitudes towards literacy and their attitudes towards computer-aided education. The data obtained from primary school teacher candidates for this study are presented below with their explanations.

**Table 1.** The Results of the T-Test for Independent Groups According to the Gender Variable of The First Literacy Teaching Self-Efficacy and The Attitudes of Computer-Assisted Education of Pre-Service Teachers

Pre-service Teachers'	Gender	N	Mean	Std. Deviation	Std. Error Mean	t	df	p
First Literacy Teaching Self-Efficacies	Female	232	97.2629	18.36840	1.20594	.983	297	.327
	Male	67	94.7761	17.82220	2.17733			
Attitudes Towards Computer-Aided Education	Female	232	77.3922	12.89607	.84667	.999	109.753	.811
	Male	67	77.8209	12.85222	1.57015			

\*p<05

When Table 1 is examined; It is seen that there is no significant relationship between the first literacy teaching self-efficacy ( $p < 0$ ,  $p = .327$ ) and their attitudes towards computer-aided education ( $p < 0$ ,  $p = .811$ ), when their t-tests results for the independent groups are examined according to gender.

**Table 2.** The Results of Simple Linear Regression Analysis in Terms of Predicting the Attitudes of Pre-Service Teachers; First Literacy Teaching Self-Efficacy towards Computer-Assisted Education (N = 299)

Predictive Variables	B	Std. E	β	t	p
(Constant)	61.071	3.908		15.628	.000
First Reading and Writing Self Competences	.170	.040	.241	4.275	.000

R= .241      R<sup>2</sup>=.058  
F= 18.277      p=.0.00\*\*

According to the results of the regression analysis in Table 2, it is seen that there is a significant relationship between the attitudes of pre-service primary school teachers towards computer-aided education and their first literacy teaching self-efficacy ( $R = .24$ ,  $R^2 = .06$ ,  $F = 18.277$ ,  $p < 0.00$ ). The attitudes of pre-service teachers towards computer-aided education and their perceptions of the first reading and writing teaching self-efficacy explain 6% of the total variance.

**Table 3.** Results of Correlation Analysis for the Relationship Structure between the Sub-Dimensions of First Literacy Teaching Self-Efficacy and Their Attitudes towards Computer-Aided Education (N = 299)

Teacher Candidates'	1	2	3	4	5	
1. Preparation Sub-Dimension	r	1				
2. Application Sub-Dimension	r	.829**	1			
3. Evaluation Sub-Dimension	r	.715**	.848**	1		
4. First Reading and Writing Teaching Self-Efficacies	r	.922**	.973**	.883**	1	
5. Attitude towards Computer-Aided Education	r	.177**	.265**	.215**	.241**	1

\*\* P < 0.01

When Table 3 is examined, it is seen that there are significant relationships between the preparation, application, and evaluation sub-dimensions. Accordingly, it is seen that there is a high-level positive correlation between preparation and application ( $r = .83$ ), preparation and evaluation ( $r = .76$ ), application and evaluation ( $r = .85$ ). It is seen that there is a low level positive relationship between preparation and attitude towards computer-aided education ( $r = .18$ ), attitude towards application and computer-aided education ( $r = .27$ ), evaluation, and attitude towards computer supported education ( $r = .22$ ).

### 4. CONCLUSION AND DISCUSSION

Considering the findings of the study, it is seen that there is no significant relationship between the first literacy teaching self-efficacy of pre-service primary teachers in terms of independent groups according to the gender variable. Öztürk, Ertem, (2017), determined in their study titled "Evaluation of Classroom Teachers



'Self-Efficacy Beliefs Towards Teaching First Reading and Writing' that female classroom teachers' self-efficacy belief levels in the first reading and writing teaching differ positively compared to male primary school teachers. This result does not agree with the results of our study. It is thought that reasons such as the study group and study method used in the research are effective in this situation. It is seen that there is no significant relationship between the attitudes of pre-service teachers towards computer-aided education according to the gender variable. In various studies examining pre-service teachers' attitudes towards computer-aided education (Balaman, 2015; Kuş, 2005; Başarıcı & Ural, 2009; Karataş, Alcı & Karabayık Çeri, 2015; Lehimler, 2016; Sezer, 2011; Şahin & Akçay, 2011; Özgen, Obay & Bindak, 2009; Yenice & Özden, 2015; Yenilmez & Karakuş, 2007; Yıldırım & Kaban, 2010), there was no significant difference by gender. However, in some studies (Kaplan, Öztürk, Altaylı, Ertör, 2013; Kutluca & Ekici, 2010; Sadık, 2006; Shapka & Ferrari, 2003; Schumacher & Moharan Martin, 2001; Teo, 2008), it is determined that gender is significant in attitudes towards computer-aided education. The reason for this situation can be shown as studying on different study groups.

When the results of the regression analysis of the study are examined, it is seen that there are significant relationships between the attitudes of pre-service primary school teachers towards computer-aided education and their first literacy teaching self-efficacy. It is seen that pre-service teacher's attitudes towards computer-aided education and their first literacy teaching self-efficacy explain 6% of the total variance. In addition, it is seen that there are significant relationships between the sub-dimensions of primary literacy teaching self-efficacy (preparation, application, and evaluation) of pre-service primary schoolteachers. It is possible to say that there is a high-level positive relationship between preparation and application, preparation and evaluation, and application and evaluation. On the other hand, it is seen that there is a low-level positive relationship between the sub-dimensions of the first reading and writing teaching self-efficacy of pre-service primary schoolteachers and their attitude towards computer-aided education. Teachers' attitudes towards computer-aided education take an important place among the factors that affect effective computer use and management of teachers in the classroom environment in which the teaching is performed (Huang & Liaw, 2005). In this direction, positive teacher attitudes towards computer-aided education will increase the quality of computer-aided education.

Considering the research results, the following suggestions can be made; The limitations of the study are that the data was collected and analyzed only quantitatively and that it was not supported qualitatively, the research was conducted in universities in only three provinces (Istanbul, Yozgat, Denizli), and the data was collected in the 2018-2019 academic year. In addition, in the study, it was assumed that the participants answered the questions sincerely and were equally affected by environmental conditions. It is recommended that this researched problem can be studied with qualitative research designs as well.

## REFERENCES

- Akar, C. (2008). Öz yeterlilik inancı ve ilk okuma ve yazmaya etkisi. *Uşak Üniversitesi Sosyal Bilimler Dergisi*, 1(2), 185-192.
- Akkoyunlu, B. (1998). *Bilgisayar ve eğitimde kullanılması çağdaş eğitimde yeni teknolojiler*. Eskişehir: Anadolu Üniversitesi Açık Öğretim Fakültesi Yayınları, 33-45.
- Akyol, H. (2015). *Türkçe ilk okuma yazma öğretimi* (15. Baskı). Ankara: Ankara: Pegem Akademi.
- Arslan, A. (2006). Bilgisayar destekli eğitim yapmaya ilişkin tutum ölçeği, *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, 3(2), 24-33
- Ateş, S. (2011). *İlköğretim beşinci sınıf Türkçe dersi öğrenme-öğretme sürecinin anlama öğretimi açısından değerlendirilmesi* (Yayımlanmamış Doktora Tezi). Gazi Üniversitesi, Ankara.
- Balaman, F. (2015). Meslek yüksekokulu öğrencilerinin bilgisayar destekli eğitim yapmaya ilişkin tutumlarının çeşitli değişkenler açısından incelenmesi, *Adıyaman Üniversitesi Eğitim Bilimleri Dergisi*, 5(2), 190-210.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.
- Başaran, M. (2014). Sınıf öğretmeni adaylarının bilgi okuryazarlıklarının değerlendirilmesi. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi*, 25(3), 163-177.
- Başarıcı, R. & Ural, A. (2009). Bilgisayar öğretmen adaylarının bilgisayar destekli eğitime yönelik tutumları. *International Online Journal of Educational Sciences*, 1(1), 165-176.
- Bıkmaz, F. H. (2002). Fen eğitiminde öz yeterlilik ölçeği. *Eğitim Bilimleri ve Uygulama*, (2), 177-210.
- Büyüköztürk, Ş. (2016). *Sosyal bilimler için veri analizi el kitabı: İstatistik araştırma deseni SPSS uygulamaları ve yorum*. Ankara: Pegem Akademi Yayıncılık.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş. & Demirel, F. (2017). *Bilimsel araştırma yöntemleri*. Ankara: Pegem Akademi.
- Calhoon, M. B. (2005). Effects of a peer-mediated phonological skill and reading comprehension program on reading skill acquisition for middle school students with reading disabilities. *Journal Learn Disabil*, 38(5), 424-433. <https://doi.org/10.1177/00222194050380050501>
- Christenson, L. B., Burke Johnson, R. & Turner, L. A. (2015). *Araştırma yöntemleri: Desen ve analiz* (A. Aypay, Çev. Ed.). Akara: Anı Yayıncılık.
- Delican, B. (2016). İlk Okuma yazma öğretimine yönelik öz yeterlilik ölçeğinin geliştirilmesi, *Turkish Studies*, 11(3), 861-877.
- Demirel, Ö. (2005). *Öğretimde planlama ve değerlendirme öğretme sanatı*. Ankara: Pegem Akademi Yayıncılık.
- Gay, L. R. & Airasian, P. (2000). *Educational Research*. Upper Saddle River.



- Gedik, O. (2017). *Sınıf eğitimi öğretmen adaylarının teknolojik pedagojik yeterlilikleri ve bilgisayar destekli eğitime ilişkin tutumlarının incelenmesi* (Yüksek lisans Tezi). Gaziosmanpaşa Üniversitesi Eğitim Bilimleri Enstitüsü, Tokat.
- Gedik, O., Sönmez, Ö. F., & Yeşiltaş, E. (2019). Sınıf eğitimi öğretmen adaylarının teknolojik pedagojik içerik bilgi yeterliliklerinin incelenmesi. *Eğitim Kuram ve Uygulama Araştırmaları Dergisi*, 5(2), 187-198.
- Guskey, T. R. (1987). Context variables that affect measures of teacher efficacy. *Journal Of Educational Research*, 81(1), 41-47.
- Güneş, F. (2014). *Türkçe öğretimi yaklaşımlar ve modeller*. Ankara: Pegem Akademi.
- Huang, H. M. & Liaw, S. S. (2005). Exploring user's attitudes and intentions toward the web as a surveytool. *Computers in Human Behavior*, 21(5), 729-743. <https://doi.org/10.1016/j.chb.2004.02.020>
- Kahraman, E. (2013). *Türkçe öğretmenlerinin bilgisayar destekli eğitime ve teknolojiye yönelik tutumları arasındaki ilişkinin incelenmesi* (Yayımlanmamış Yüksek lisans Tezi). Niğde Üniversitesi. Eğitim Bilimleri Enstitüsü, Niğde.
- Kaplan, A., Öztürk, M., Altaylı, D., & Ertör, E. (2013). Sınıf öğretmenlerinin bilgisayar destekli öğretime yönelik tutumlarının bazı değişkenlere göre karşılaştırılması. *Turkish Journal of Computer and Mathematics Education*, 4(2), 89-103.
- Karataş, H., Alcı, B & Çeri Karabıyık, B. (2015). Öğretmen adaylarının bilgisayar destekli eğitime ilişkin tutumları, *Eğitim ve Öğretim Araştırmaları Dergisi*, 4(3), 1-9.
- Kurtuluş, N. & Çavdar, O. (2010). Öğretmen adaylarının fen öğretimine yönelik öz yeterlilikleri. *E-Journal of New World Sciences Academy*, 5(3), 1302-1315.
- Kuş, B. (2005). *Öğretmenlerin bilgisayar öz-yeterlik inançları ve bilgisayar destekli öğretime yönelik tutumları* (Yayımlanmamış Yüksek Lisans Tezi). Hacettepe Üniversitesi Fen Bilimleri Enstitüsü, Ankara.
- Kutluca, T. & Ekici, G. (2010). Öğretmen adaylarının bilgisayar destekli eğitime ilişkin tutum ve öz yeterlilik algılarının incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, (38), 177-188.
- Lehimler, E. (2016). Müzik öğretmeni adaylarının bilgisayar destekli öğretime ilişkin tutum ve öz-yeterlik algılarının incelenmesi, *Turkish Studies*, 11(14), 441-456.
- Luszczynska, A., Scholz, U. & Schwarzer R. (2005). The general self-efficacy scale: multicultural validation studies. *The Journal of Psychology*, 139(5), 439-457.
- MEB. (2008). *Öğretmen yeterlikleri: Öğretmenlik mesleği genel ve özel alan yeterlikleri*. Ankara: Devlet Kitapları Müdürlüğü.
- MEB. (2012). *Uygun ve hazırlık çalışmaları öğretmen kitabı ilkököl 1*. Ankara: Özgün Matbaacılık.
- Özgen, K., Obay, M. & Bindak, R. (2009). Ortaöğretim matematik öğretmen adaylarının bilgisayar ve bilgisayar destekli eğitime yönelik tutumlarının incelenmesi, *Dicle Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 1(2), 12-24.
- Öztürk, B & Ertem, İ. S. (2017). Sınıf öğretmenlerinin ilk okuma ve yazma öğretimine yönelik öz yeterlik inançlarının değerlendirilmesi, *Anadolu Kültürel Araştırmalar Dergisi*, 1(3), 1-26.
- Pala, A. (2006). İlköğretim birinci kademe öğretmenlerinin eğitim teknolojilerine yönelik tutumları. *Manas Üniversitesi Sosyal Bilimler Dergisi*, 16, 177-188.
- Razon, N. (1980). Okuma bozuklukları ve nedenleri. *İstanbul Pedagoji Dergisi*, 1.
- Sadık, A. (2006). Factors influencing teachers' attitudes toward personal use and school use of computers: new evidence from a developing nation. *Evaluation Review*, 30(1), 86-113. <https://doi.org/10.1177/0193841X05276688>
- Schumacher, P. ve Moharan Martin, T. (2001). Gender, internet and computer experiences. *Computers in Human Behavior*, 17(1), 95-110. [https://doi.org/10.1016/S0747-5632\(00\)00032-7](https://doi.org/10.1016/S0747-5632(00)00032-7)
- Schunk, D. H. (2009). *Öğrenme teorileri eğitimsel bir bakışla*. Muzaffer Şahin (Çev. Ed.). Ankara: Nobel Yayıncılık.
- Sezer, A. (2011). Coğrafya öğretmeni adaylarının bilgisayar destekli eğitime ilişkin tutumlarının incelenmesi. *Uşak Üniversitesi Sosyal Bilimler Dergisi* 4(1), 1-19.
- Shapka, J. & Ferrari, M. (2003). Computer-related attitudes and actions teacher candidates. *Computers in Human Behavior*, 19(3), 319-334. [https://doi.org/10.1016/S0747-5632\(02\)00059-6](https://doi.org/10.1016/S0747-5632(02)00059-6)
- Shashaani, L. (1997). Gender-based differences in attitudes toward computers. *Computers and Education* 20(2), 169-181. [https://doi.org/10.1016/0360-1315\(93\)90085-W](https://doi.org/10.1016/0360-1315(93)90085-W)
- Podell, D., & Soodak, L. (1993). Teacher Efficacy and Bias in Special Education Referrals. *The Journal of Educational Research*, 86(4), 247-253. Retrieved October 7, 2019, from <http://www.jstor.org/stable/27541871>
- Şahin, A. & Akçay, A. (2011). Türkçe öğretmeni adaylarının bilgisayar destekli eğitime ilişkin tutumlarının incelenmesi. *Turkish Studies*, 6(2), 909-918.
- Teo, T. (2008). Pre-service teachers' attitudes towards computer use: A Singapore survey. *Australasian Journal of Educational Technology*, 24(4), 413-424. <https://doi.org/10.14742/ajet.1201>
- Yenice, N. & Özden, B. (2015). Fen bilgisi öğretmen adaylarının bilgisayar öz yeterlik algılarının ve bilgisayar destekli eğitime yönelik tutumlarının incelenmesi, *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 25, 175-201.
- Yenilmez, K. & Karakuş, Ö. (2007). İlköğretim sınıf ve matematik öğretmenlerinin bilgisayar destekli matematik öğretimine ilişkin görüşleri. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 14, 87-98.
- Yıldırım, K. & Ateş, S. (2016). Öğretmenlerin okuma yazma öğretimine yönelik öz yeterlilik algısı ölçeğinin Türkçe uyarlama çalışması. *International Journal Of Eurasia Social Sciences*, 7(25), 258-270.
- Yıldırım, S. & Kaban, A. (2010). Öğretmen adaylarının bilgisayar destekli eğitime karşı tutumları. *Uluslararası İnsan Bilimleri Dergisi*, 7(2), 158-168. <http://www.insanbilimleri.com>