Social-Cognitive Career Model for Social Studies Teacher Candidates' Leadership in Educational Technology

Özkan Akman [i]
Gaziantep University

Abstract

In today's knowledge society, constant changes and developments in the information and communication technologies has affected all areas as well as educational systems. In order to comply with these changes and developments, teachers need to develop a proficiency in using the technology in a sufficient manner. Although the number of research studies were done on this proficiency of the social studies' teacher candidates is not sufficient, but the results of these studies are quite satisfactory. In the study, it was aimed to contribute to the literature, the attitudes of the social studies' teacher candidates have been studied according to the model of ''Social-Cognitive Career Theory'' (SCCT); the candidates have also been evaluated in terms of self-sufficiency, interests, intentions, and result expectations—the four important attributes of SCCT. A five-point Likert scale, adapted from a Turkish study by Sahin (2009), used in this research. Among the results, significant relationships were observed between the self-sufficiency, interests, intentions, and result expectations of the social studies' teacher candidates with regard to technology.

Keywords: Social studies, Social-cognitive career theory, Education technologies, Technology education

---

[i] **Ozkan Akman** is an assistant professor in the Department of Social Studies at Gaziantep University, in Turkey.

Correspondence: akmanozkan@hotmail.com

Introduction

In the present era, also entitled as the knowledge era, the advances made in the science and technology are related to the education as well as all areas of human life (Akturk et al. 2015). The technological developments related to the education have proved to be efficient in the career development of the individuals (Eryaman, 2007). Hence, "Social-Cognitive Career Theory" (SCCT) has recently become the center of attention for the researchers. According to Lent et al. (1994), who are accepted as the leaders of this subject, the two aspects of SCCT are "competence expectation" and "result expectation." The competence expectation is associated with the perceptions related with the performances of a person (e.g., "Can I do this?"), whereas the result expectation is associated with the expectations (e.g., "If I do this, what shall I obtain as the result?") related with the results, which may be obtained at the end of a performed work. These two aspects are quite efficient in determining the performance targets or selections of the individuals (Awofala et al. 2015; Kiray et al. 2015; Lent 2005). Besides, the result expectation levels related with the activities of the individuals are quite efficient in starting and continuing an activity (Bandura 1997).

The social-cognitive concept was developed by Bandura (1997). Hackett and Betz (1981) further examined Bandura's model and were the first to relate this concept to the career development of the women, focusing on occupational behavior. A relatively new concept known as social-cognitive career theory (SCCT) was developed by Lent et al. (1996), as a derivative of the general social-cognitive concept of Bandura. According to Lent et al. (1996), a scale is developed as to make this concept convenient for these four informative resources in terms of mathematical competence expectation. Ozyürek (2002) implied these findings on high school students and Aybay-Koroğlu (2005) used them on the students of eighth grade and obtained the similar results. The purpose of this study was to determine the usage of the technology by the social studies teacher candidates in the context of SSCT. The attributes of SSCT (Lent et al.1994) used in this research are—self-sufficiency, interests, intentions, and result expectations. The relation between these four attributes is depicted in Figure 1.
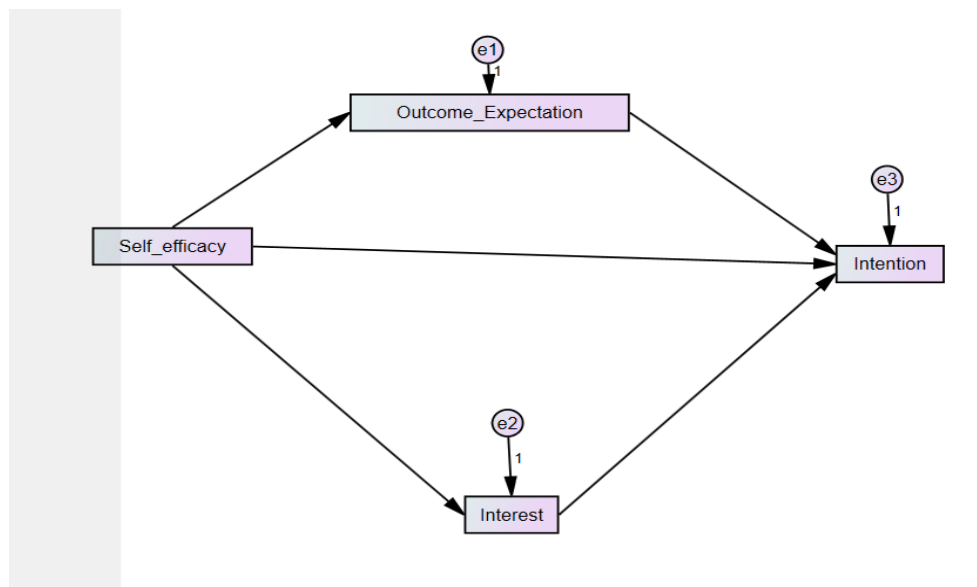

Figure 1. *SCCT Choice Goals Model*

Review of the SCCT literature

To select a profession that is a turning point in the life of an individual is one of the most important decisions people make throughout the lifespan. While making these decisions, an individual is, indeed, influenced by many internal and external factors and forms his decision according to the results of various cases. The self-sufficiency of an individual plays a very important role in choosing

his profession. The physiological dimensions of vocational choice have been analyzed by the researchers for many years. Some aspects of the study focus on vocational choice process as an important element, whereas others conceptualize personality dimensions for job satisfaction as significant (Sarı & Sahin 2013). Findings of the similar studies are described in the following paragraph.

The social-cognitive career theory was first applied in the field of engineering. The research studies investigated the continuity of the academic interests in the field of engineering, science, mathematics, and so on (Navarro et al. 2014). Byars et al. (2010) examined the relations between the intentions, academic interests, campus climate perceptions, racial specifications, and social-cognitive values of the students of different races in the field of science and mathematics. However, it has been observed that there is an important relation among the values between the intentions, continuity, interests, and result expectations. A similar study was conducted by Inda et al. (2013) on 579 engineering students, including both males and females. Furthermore, in a study examining the self-sufficiency perceptions, future expectations, interests, purposes, social support, and challenges of the engineering students, it was concluded that the self-sufficiency perceptions of the women are less than the men; however, their interests are much more than those of the men. It was also mentioned that there were no significant differences between their future expectations and purposes. Huı et al. (2013) conducted a research on 122 Asian students pursuing education in America, applying "social-cognitive theory" of Hentand Brown. Environmental supports, self-sufficiencies, purposes and satisfactions, and behavioral acculturation and enculturation were analyzed considering global precautions. However, it was also mentioned that the environmental factors have an indirect effect on both acculturation and enculturation.

In a study conducted on total 257 students, Tokar et al. (2007) mentioned that the two important factors of social-cognitive career theory, self-sufficiency and future expectations, contribute less to learning experiences in experimental approaches, whereas the major three contributors are the personality, gender, and conformity to norms of gender role.

In a study on the welfare level during the education and the business environment after education with a social-cognitive perspective, Shu and Lent (2008) mentioned that the level of welfare and happiness increases when the complete integration of cognitive, behavioral, social, and personality variables is achieved with respect to social-cognitive theory.

Using the social-cognitive career theory framework, developed by Lent et al. (2012), Rogers and Creed (2011) conducted a study on 631 high school students. The students were randomly divided into two groups, namely T1 and T2. A planning was made to the T1 group incorporating SCCT, whereas the other group remained untouched. Students were examined in terms of self-sufficiency, future expectations, given supports, and personality variables. The findings of the study indicated that the students in the T1 group who were served by the support programs and those who had high self-sufficiency gained success in their career.

Lent et al. (2010) performed a study on 116 students of the first two semesters from the engineering department. According to the path analysis results, they have mentioned that there should be a prior condition on the result expectation of the self-sufficiency, purpose, interest, and supports. Besides, they found that there was no significant relation between the challenges, expectations, and self-sufficiency, whereas a bidirectional relation exists between the interest and self-sufficiency.

In a comparative study, Lent et al. (2013) examined a social-cognitive career model designed for estimating the relation between the satisfactions and interests on a sample of 1377 students enrolled in engineering departments of two white and two black universities. They found that the dimension of the relation between the intention and interest is rather high.

Lent et al. (2012) conducted two transverse and longitudinal studies on the Portuguese university students. In the first study, academic self-sufficiencies, environmental supports, purpose,

academic satisfaction, positive contributions, and factors affecting the life were examined in 366 students. In the second study performed on 158 students, the same factors were accepted. In both the studies, academic stress and life satisfaction were the main attributes of academic satisfaction in students.

Scheuermann et al. (2014) made a research using an SCCT model to examine the interest and targets of Afro-American women. The backgrounds of these women are analyzed by using the SCCT framework. The study was conducted on a total of 198 women, and a direct significant relation was found between the professional competence, future expectations, and self-sufficiency. To attain prestige in the future has always been an important focus for Afro-American women. Hence, the self-sufficiency among them is associated with the professional competence in terms of prestige. However, the authors also found that there is a lack of significant relation between the future expectations and self-competence.

Kurtaslan et al. (2012) investigated the attitudes of the music teachers toward the use of educational technology incorporating SCCT as a framework. They determined that the service period, education status, and type of school graduated by the music teachers affect their self-sufficiencies, result expectations, interests, and intentions to use the educational technology.

Isik (2013) conducted a research on 263 university students, via using SCCT as a basis. According to the results, there are negative significant relations in supervision focus and a positive relation between the perceived social support points from a special person, family, and friend and professional result expectations. When the professional result expectation points are examined in terms of social support, the only significant precursor is the family support and it is observed that the supervision focus is the significant precursor of the professional result expectation.

Ozyurek (2010) has mentioned that when the environments convenient to the career are considered, the informative resources have a major role in changing the competence expectation. When it is considered from this cognitive frame, it becomes easier to measure the result expectations of university students related with the profession and to determine the other variables that may be associated with the professional result expectation. However, when the relevant literature in Turkey and other countries is examined, no sufficient studies are obtained in terms of other variables that may be associated with professional result expectations (Ozyurek, 2010).

Aim of the study

As demonstrated in the studies discussed above, integrating the instructional technology in education, social studies being an important sub-dimension of education, it creates a powerful learning environment in many ways. The aim of this research is to determine self-efficacy, result expectations, interests, and intentions of social studies teacher candidates based on the SCCT concept.

Method

The study was conducted by using the descriptive scanning technique from quantitative research methods for the research model. Scanning models are research approaches aiming to describe a situation in the past and present. Event, individual, and object are defined in their own conditions (Karasar, 2000).

Participants

In this study, the participants were fourth-grade teacher candidates studying in Necmettin Erbakan University, Social Studies Teaching in the 2014–2015 spring term. Fourth-grade teacher candidates were chosen since they were closer to graduate and about to being a teacher. The total number of the participants were 160, 55% of which were women and 45% were men.

Instruments

The instruments of this research are established on the basis of educational technologies, self-sufficiency perceptions, future expectations, intentions, and interests of the social studies teacher candidates. These instruments have been divided into five sub-groups.

1. Technological self-sufficiencies of social sciences teacher candidates

This section focuses on questions that arise while determining the self-sufficiencies of the social sciences teacher candidates toward the use of educational technology. It consists of eight articles, including some questions measuring the self-sufficiency of the social sciences teacher candidates, such as, "*I trust myself for showing the information and skill required for using the education technology in class*," "*I trust myself for solving the problems of the students related with the education technologies*," and "*I trust myself that I shall teach a subject by using the appropriate education technologies*." For determining the self-sufficiencies of social sciences teacher candidates in using the educational technologies, the five-point Likert scale, which is graded from 1 to 5 (1= not trusting, 5= completely trusting), was used. The higher points show that their self-sufficiency belief in using the educational technologies are more positive.

2. The future expectations of social studies teacher candidates

In this section the result expectations are measured, throwing light on the possible result expectations of social sciences teacher candidates for their careers about educational technologies which were used in the class. It consists of eight articles, including questions that measure the result expectations of social sciences teacher candidates, such as "*I have more satisfaction in my profession by using the education technology in my profession*." "*I can make my courses more efficient by using education technology in my profession*." and "*I am seen in higher position in my profession by using education technology in my profession.*" The five-point Likert scale was used. The higher points show that their result expectations in using the educational technologies are more positive.

3. The interests of social studies teacher candidates

In this section, the interest level of the social sciences teacher candidates for educational technologies was measured. It consists of six articles, including questions, such as "*How much interest do you have for participating to social study group for education technology; for reading a book or article related with education technology.*" The five-point Likert scale, which is graded from 1 to 5 (1 = not interested, 5 = interested), is used. The higher points show that the interest for using the educational technologies is more positive.

4. The intentions of social studies teacher candidates

In this section, the intentions of social sciences teacher candidates for developing themselves in educational technologies were measured. It consists of four articles. There are questions such as "*I plan to increase my knowledge and skills in education technologies*." "*I plan to develop the class activities and projects including education technologies*." and "*I plan to participate to the courses which are organized for education technologies.*" The five-point Likert scale, which is graded from 1 to 5 (1 = not sharing, 5 = completely sharing), is used. The higher points show that their intentions in using the education technologies are more positive.

5. The demographical specifications of social studies teacher candidates

In this section, only the gender specifications of the participants were measured.

Data collection tools

A five-point Likert scale consisting of 27 articles, modified by Sahin (2008), was used as a data collection tool within this study. The scale is formed of four sub-dimensions: first sub-dimension was adapted by Sahin (2008) from a Turkish study "Self-sufficiency Scale of Education Technology" (Wang et al. 2004); second sub-dimension was adapted from the previous studies by Perkmen et al. (2006), where SCCT was used for measuring the results expected by the elementary school teachers using the educational technologies in their future classes (Sahin 2008); third and fourth sub-dimensions were also adapted by Sahin (2008) from the Turkish studies.

Analysis of the data

In this study, a factor analysis is carried out for each part of the scale variables. The factor load for each article of the questionnaire is over 0.66. The factor analyses show not only the factor loads of the scales but also the reliability results of the attributes (intentions, interests, self-sufficiency, and result expectations) (see Appendix A for the results of factor analyses and reliability tests). In addition, the results of Kaiser–Meyer–Olkin (KMO) and Bartlett's tests show that the scale has a good fit. According to the results of the study, the reliability coefficient of *Cronbach Alpha* was found to be 0.904. According to Buyukozturk (2002), the coefficients ranged between 0.80 and 1.00, showing the excellent harmony of the articles. In addition, the structural equation model was used for explaining the complex relation between the variables.

The harmony index values which we presented much are—İ: X^2/df, CFI, RMSEA, GFI, AGFI, NFI, NNFI, and SRMR indexes (Celik, Sahin, & Aydin, 2014; Karademir, 2013; Karademir & Erten, 2013). Chi-square is evaluated as the rate between chi-square and the freedom degree. It is expected that this rate should be maximum (<3) for a good harmony, whereas for an acceptable harmony, it should be <5 (Marsh and However 1988). However, the chi-square value can easily be affected from the sample number, and other goodness-for-fit values are also obtained.

Goodness-for-fit index (GFI): It is developed for evaluation of the harmony as independent from the sample width. Their values range between 0 and 1. As much as the value is closer to 1, it is much convenient (Eroğlu 2003).

Corrected goodness-for-fit Index (AGFI): AGFİ is the GFI value which is corrected by considering the sample width. It ranges between 0 and 1. As much as AGFİ values are closer to 1, naturally it is much convenient (Tabanchinck and Fidel 2001).

Comparative fit index (CFI): The comparative fit index compare the covariance matrix which is produced by a structural equation model suggested with the covariance matrix produced by the latent variables and it gives a value between 0 and 1. The closeness of the value to 1 shows its conformity. The 0.90 value is considered as the most convenient value (Eroğlu 2003; Akman et al. 2015).

Square root of the average of estimation error squares (RMSEA): In contrast to GIF and AGFİ, the RMSEA values are expected to be close to 0. The values ≤0.05 are accepted as the convenient values (Karademir 2013; Akman and Güven 2015).

The fit index values are found by calculating the structural equation path analysis, in accordance with the obtained data. The data were classified by SPSS (Statistical Package for Social Sciences) 13.0 program and were solved with AMOS (Analyses of Moment Structures) 5 software.

<div align="center">

Findings

</div>

As illustrated in Table 1, the significant correlation relation level among SCCT variables is between 0.242 and 0.532. For example, the social studies teacher candidates are more interested in using these technologies. In addition, it has been observed that the future expectations related with the

usage of the technology (M= 3.99) and their intention of technology integration in education is in high level (M =4.36).

Table1. *Correlations between Variables used in the study*

Variables	1	2	3	4
Outcome Expectations	–			
Self-efficacy	0.318**	–		
Interests	0.242**	0.532**	–	
Intentions	0.396**	0.408**	0.435**	–
Mean	3.99	3.61	3.64	4.36
Std. Dev.	0.78	0.92	0.84	0.69

**:*p<0.01*

     In this study, to simplify the complex relation between the technological self-sufficiency, result expectations, interests, and intentions of the social studies teacher candidates, a structural equation model was used. According to the results of path analysis (Figure 2), the fit index values of the mentioned model were found as $\chi2 / df:$ 1.161, ***RMR: 0.925***, ***GFI:*** 0.996, ***CFI:*** 0.999, ***RMSEA:*** 0.034.
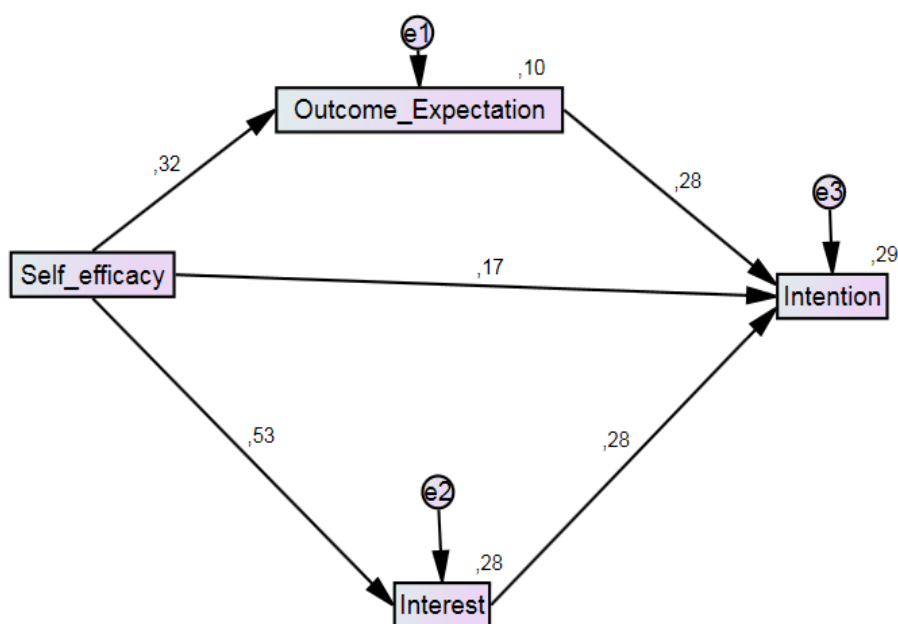

Figure 2. *COE Faculty Model for Leadership in Educational Technology*

     In this model, there is a direct relation between the technological self-sufficiency and result expectations of the social studies teacher candidates. Also, there is a direct relation between the technological self-sufficiency and interest. However, there are both direct and indirect relations between self-sufficiency and intention. Result expectations and interests are the two factors responsible for the direct relation between technological self-sufficiency and intentions of the social studies teacher candidates. It has also been observed that there is a direct relation between the interests and intentions and a direct relation between result expectations and interests. The explanation percentage of the result expectation, interest, and self-sufficiency is approximately %29. Likewise, the explanation of the interest by self-sufficiency has been found to be approximately 28% (R^2=0.29, $p <$ 0.01).

Discussion

The results of these studies reveal that in the technology education of social studies teacher candidates, there are both direct and indirect effects on the relation between the self-sufficiency and intentions. In the study conducted by Sahin (2009), there is an indirect relation between the self-sufficiency and intentions and result expectations and interests. In the study performed by Inda et al. (2013), it is determined that the relation between self-sufficiency and intention is direct and is parallel with our study. A study by Lent (2009) suggests that there is a mutual relation between self-sufficiency and intentions. Lent et al. (2010) presented that there is a direct relation between self-sufficiency and intentions. The results of the study of Scheuermann et al. (2014) demonstrate the same findings.

In this study, a direct relation has been found between the self-sufficiency and result expectations and interests of the social studies teacher candidates for the technology education. In other words, the technological knowledge of social studies teacher candidates directly affects the interests and future expectations. The results of some of other studies also support these findings (Inda et al. 2013; Lent et al. 2010; Sahin 2009; Lent 2009).

The most remarkable element in the findings of this research is the highest relation seen between the self-sufficiency and interests. The lowest relation level is between the self-sufficiency and intentions. This means that there is a high relation between the interests and self-sufficiencies of social sciences teacher candidates, whereas the relation level between the result expectations and intentions is low. Similar results are seen in a study by Sahin (2009). However, the research conducted by Scheuermann et al. (2014) presents a high relation between the result expectations and intentions, but no relation is found between the self-sufficiency and intentions. The study by Lent et al. (2010) reports that the relation between self-sufficiency and intentions is very low, but there is a medium relation between self-sufficiency and interests.

The research indicates a need for the social support programs for the high relation level between the self-sufficiency, interests, intentions, and result expectations, which are the instruments of SSCT (Lent et al. 1994; Wang et al. 2004; Scheuermann et al. 2014; Lent et al. 2010). These findings show a parallelism between the studies of Sahin (2008) and Smith (2002). However, it is considered that the weaknesses in the relation levels in this study shall change in positive direction.

Conclusions

The university years known as a determinant stage for vocational choice process can be stressful and compeller for the social studies teacher candidates, negatively affecting their heath and psychological formations in current and future years. Therefore, the career-oriented programs, especially for the university students, are always framed considering the effects of the psychosocial factors on psychological well-being of students. In Turkey, career consultancy is especially offered to students in career development/planning, implementation, research centers in the universities to ease the stress of vocational choice, and the primary objective of research and the interventions developed by the professionals working in these centers is to create more efficient and qualified candidates.

In comparison to other studies, within different points mentioned in this study focus on to handle the relations between SCCT as comprehensive and specific. Other studies mainly investigated the field of engineering, psychological consultancy and guidance, mathematical, music, and computer technology. However, this study is considered important as it opens a path to the future research opportunities for determining the result expectations and purpose of the technology, the point of view for technology, self-sufficiency of technology, and technology interests of the social studies teacher candidates in the knowledge era.

References

Aybay-Koroglu, Y. (2005). İlkögretim 8. Sınıf Ögrencilerine Yönelik Matematik Yetkilik Beklentisi Ölçekleri Geliştirme Çalışması. Yayımlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.

Akman, O. & Guven, C. (2015). TPACK survey development study for social sciences teachers and teacher candidates. International Journal of Research in Education and Science (IJRES), 1(1), 1-10.

Akman, O., Guven, C., Kiray, S. A & Celik, I. (2015). Views of Social Science Teachers and Preservice Teachers on their TPACK Perceptions. In *Society for Information Technology & Teacher Education International Conference* (Vol. 2015, No. 1, pp. 10717-10724).

Akturk, A.O., Mihci, S. & Celik, I. (2015). Metaphors of high school students about the concept of "interactive whiteboard". International Journal of Education in Mathematics, Science and Technology, 3(2), 120-131.

Awofala, A.O.A., Fatade, A.O. & Udeani, U.N. (2015). Nigerian preservice science, technology and mathematics teachers' computer self-efficacy: An exploration based on gender, age, and discipline of study. International Journal of Education in Mathematics, Science and Technology, 3(2), 101-119.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.

Büyüköztürk, S. (2002). Faktör analizi: Temel kavramlar ve ölçek geliştirmede kullanımı. Kuram ve uygulamada eğitim yönetimi, 32(32), 470-483.

Byars-Winston, A., Estrada, Y., Howard, C., Davis & D, Zalapa (2010). Influence of social cognitive variables and ethnic variables on academic goals of underrepresented students in science and engineering: A multiple-group analysis. Journal of Counseling Psychology, 57(2), 205–218.

Celik, I., Sahin, I. & Aydin, M. (2014). Reliability and validity study of the Mobile Learning Adoption Scale developed based on the Diffusion of Innovations Theory. International Journal of Education in Mathematics, Science and Technology, 2(4), 300-316.

Eroglu, E. (2003). Toplam kalite yönetimi uygulamalarının yapısal eşitlik modeli ile analizi. İstanbul Üniversitesi Sosyal Bilimler Enstitüsü İşletme Anabilim Dalı Sayısal Yöntemler Bilim Dalı, İstanbul.

Eryaman, M. Y. (2007). Examining the characteristics of literacy practices in a technology-rich sixth grade classroom. *The Turkish Online Journal of Educational Technology (TOJET) 6*(2), 26-41.

Fouad, N. A., Smith, P. L. & Zao, K. E (2002). Across academic domains: Extensions of the social-cognitive career model. Journal of Counseling Psychology, 49(2), 164.

Hackett, G. & Betz, N. E. (1981). A self-efficacy approach to the career development of women. Journal of vocational behavior, 18(3), 326-339.

Hui, K., Lent, R. W. & Miller, M. J. (2013). Social cognitive and cultural orientation predictors of well-being in Asian American college students. Journal of Career Assessment, 1069072712475289.

Inda, M., Rodríguez, C. & Peña, J. V. (2013). Gender differences in applying social cognitive career theory in engineering students. Journal of vocational behavior, 83(3), 346-355.

Isık, E. (2013). Mesleki Sonuç Beklentisinin Yordayıcıları Olarak Algılanan Sosyal Destek ve Denetim Odağı.

Karademir, E. (2013). Öğretmen Ve Öğretmen Adaylarının Fen Ve Teknoloji Dersi Kapsamında "Okul Dışı Öğrenme Etkinliklerini" Gerçekleştirme Amaçlarının Planlanmış Davranış Teorisi Yoluyla Belirlenmesi. Doktora tezi. Ankara: 2013.

Karademir, E. & Erten, S. (2013). Determining the factors that affect the objectives of preservice science teachers to perform outdoor science activities. International Journal of Education in Mathematics, Science and Technology, 1(4), 270-293.

Kiray, S.A., Gok, B. & Bozkir, A.S. (2015). Identifying the factors affecting science and mathematics achievement using data mining methods. Journal of Education in Science, Environment and Health (JESEH), 1(1), 28-48.

Kurtaslan, Z., Arat, T. & Cakırer, S. (2012). Müzik Öğretmenlerinin Sosyal-Bilişsel Kariyer Kuramına Göre Öğretim Teknolojilerine Yönelik Tutumları. İDİL, 2012, Cilt 1, Sayı 4 / Volume 1, Number 4

Lent, R.W. (2005). A Social Cognitive View of Career Development and Counseling.

Lent, R.W., Brown, S. & Hackett, G. (1996). Career Development. Career choice and development, 373.

Lent, R.W., Do, Céu. Taveira M. & Lobo, C. (2012). Two tests of the social cognitive model of well-being in Portuguese college students. Journal of Vocational Behavior, 80(2), 362-371.

Lent, R.W., Lopez, F.G., Brown, S.D. & Gore, Jr. P.A. (1996). Latent structure of the sources of mathematics self-efficacy. Journal of Vocational Behavior, 49(3), 292-308.

Lent, R.W., Miller, M.J., Smith, P.E., Watford, B.A,, Lim, R.H., Hui, K., ... & Williams, K. (2013). Social cognitive predictors of adjustment to engineering majors across gender and race/ethnicity. Journal of Vocational Behavior, 83(1), 22-30.

Lent, R.W,, Sheu, H.B., Gloster, C.S. & Wilkins, G. (2010). Longitudinal test of the social cognitive model of choice in engineering students at historically Black universities. Journal of Vocational Behavior, 76(3), 387-394.

Lent, R.W., Brown, S. D. & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. Journal of Vocational Behavior, 45, 79-121.

Marsh, H.W. & Hocevar, D, (1988). A new, more powerful approach to multitrait multimethod analyses: Application of second-order confirmatory factor analysis. Journal of Applied Psychology, 73, 107-117.

Navarro, R.L., Flores, L.Y., Lee, H.S & Gonzalez, R. (2014). Testing a longitudinal social cognitive model of intended persistence with engineering students across gender and race/ethnicity. Journal of Vocational Behavior,85(1), 146-155.

Ozyurek, R. (2002). Kız ve Erkek On Birinci Sınıf Öğrencilerinin Kariyer Yetkinlik Beklentisi, Kariyer Seçenekleri Zenginliği, Akademik Performan ve Yetenekleri Arasında İlişkiler. Türk Psikolojik Danışma ve Rehberlik Dergisi,2(17), 19-32.

Ozyurek, R. (2010). Matematik Yetkinlik Beklentisi Bilgilendirici Kaynaklar Ölçeği'nin geçerlik ve güvenirlik çalışmaları [The Reliability and Validity of the Mathematics Self-Efficacy Informative Sources Scale]. Kuram ve Uygulamada Eğitim Bilimleri Dergisi, 10(1).

Perkmen, Serkan., Niederhauser, Dale. & S.Charania, Amina. (2006). Factors that influence preservice teachers' careergoals in instructional technology. Annual meeting of American Educational Research Association (AERA). Retrieved.

Rogers, M.E. & Creed, P.A. (2011). A longitudinal examination of adolescent career planning and exploration using a social cognitive career theory framework. Journal of Adolescence, 34(1), 163-172.

Sahin, I. (2008). From the social-cognitive career theory perspective: A college of education faculty model for explaining their intention to use educational technology. Journal of Educational Computing Research, 38(1), 51-66.

Scheuermann, T.S., Tokar, D.M. & Hall, R.J. (2014). An investigation of African-American women's prestige domain interests and choice goals using Social Cognitive Career Theory. Journal of Vocational Behavior, 84(3), 273-282.

Serkan, V & Sahin, M. (2011). Lise Son Sınıf Öğrencilerinin Mesleğe Karar Verme Öz-Yeterliliklerini Yordamada Umut Ve Kontrol Odağının Rolü. Kastamonu Eğitim Dergisi, Cilt:21 No:1 97-110

Sheu, H.B. & Lent, R.W. (2009). A social cognitive perspective on well-being in educational and work settings: Cross-cultural considerations. International Journal for Educational and Vocational Guidance, 9(1), 45-60.

Smith, S.M. (2002). Using the social cognitive model to explain vocational interest in information technology. Information Technology, Learning, and Performance Journal, 20(1), 1-9.

Tabachnick, B.G. & Fidell, L.S. (2001). Using multivariate statistics (4th ed.). MA: Allyn & Bacon.

Tokar, D.M., Thompson, M.N., Plaufcan, M.R. & Williams, C.M. (2007). Precursors of learning experiences in social cognitive career theory. Journal of Vocational Behavior, 71(3), 319-339.

Wang, L., Ertmer, P.A. & Newby, T.J. (2004). Increasing preservice teachers' self-efficacy beliefs for technology integration. Journal of Research on Technology in Education, 36(3), 231-249.

Appendix A: Results of factor analyses and reliability tests

Variables		Items	Mean	Factor Loadings	KMO and Bartlett test	Std. item alpha
Self-Efficacy in Educational Technology	I feel confident that I can …	...demonstrate necessary skills to use educational technology in the classroom	3.68	,804	0,900***	0,929
		...help students when they have difficulty with educational technology	3.53	,805		
		...evaluate software for teaching and learning	3.47	,777		
		...successfully teach relevant subject content using appropriate educational technology	3.59	,891		
		...consistently use educational technology in an effective way	3.87	,835		
		...mentor students in using educational technology appropriately	3.90	,869		
		...use educational technology that will aid in meeting curriculum standards	3.39	,721		
		...create a lesson plan that contains student activities requiring educational technology	3.45	,798		
Outcome Expectation from Educational Technology	Using educational technology in my career will likely	…do work that I would find satisfying	4.57	,734		
		…teach effectively	4.68	,745		
		…gain more respect of my colleagues	3.32	,645		

	allow me to…	…increase my sense of accomplishment	3.34	,699	0,921***	0,941
		…increase my teaching productivity	4.47	,721		
		…take more pleasure in my profession	4.21	,764		
		…to be regarded competent teacher by my colleagues	3.61	,720		
		…increase the quality of my work	3.78	,652		
Interest in Educational Technology	How much interest do you have in…	...reading books or articles about educational technology?	3.67	,584	0,886***	0,902
		...learning about new educational software?	3.49	,663		
		...participating in an educational technology conference?	3.66	,738		
		…working on a project involving educational technology concepts?	3.61	,578		
		…getting benefit from a computer lab?	3.72	,729		
		…attending to an educational technology seminar or workshop?	3.69	,737		
Intention to Learn and Use Educational Technology	I intend to…	…gain more skills on educational technology	4.49	,849	0,791***	0,845
		…prepare classroom activities and student projects involving educational technology	4.61	,900		
		…use educational technology more in my teaching	4.71	,893		
		…attend to training programs on educational technology	3.64	,680		