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by Burcu Gürkan, Ahmet Doğanay

The prediction of personality, culture and coping strategies on university students' psychological help seeking attitudes
by İsmail Yelpaze, Aydoğan Aykut Ceyhan

The effect of metaconceptual teaching activities on 7th grade students' understandings of and attitudes towards law related concepts
by Osman Sabancı, Şefika Kurnaz, Nejla Yürük

Development of Internet literacy self-efficacy scale for pre-service teachers
by Nehir Yasan Ak

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Table of Contents İçindekiler

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i

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iii

Factors affecting citizenship education according to perceptions and experiences of secondary-school teachers

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ABSTRACT   The present study examines the factors affecting citizenship education, such as school, environment, students, teachers, and the curriculum, as perceived and experienced by secondary school teachers. The study is qualitative and uses a phenomenological design. Maximum diversity sampling was used for selecting participants. The sample consisted by eight teachers of geography, history, and philosophy who worked in three different secondary schools in the Şahinbey district of Gaziantep province in the 2017-2018 academic year. The data was collected through semi-structured interview forms and analyzed through content analysis. The data revealed causality relations. The results of the study reveal that participants categorized the concept of citizenship and citizenship education as individual, state, rights, and responsibility, which is in line with the literature. All of the participants carried out studies on citizenship knowledge and skills during their teaching processes. It was discovered that citizenship education is realized through informal (unplanned) education together with curriculum content. According to participants, citizenship education is affected by various positive and negative factors such as students, teachers, and the curriculum.

Keywords: Citizenship, Citizenship education, Secondary school

Ortaöğretim öğretmenlerinin algı ve deneyimlerine göre vatandaşlık eğitimini etkileyen faktörler

ÖZ   Bu araştırmada vatandaşlık eğitimini etkileyen okul, çevre, öğrenci, öğretmen ve program kaynaklı faktörlerin ortaöğretim öğretmenlerinin algılarına ve deneyimlerine göre değerlendirilmesi amaçlanmıştır. Araştırma nitel bir araştırma olup, olgu bilime göre desenlenmiştir. Katılımcılar maksimum çeşitlilik örnekleme göre seçilmiştir. Araştırmanın çalışma grubu 2017-2018 eğitim öğretim yılında Gaziantep ilinin Şahinbey ilçesinde 3 farklı ortaöğretim kurumunda görev yapan 8 coğrafya, tarih ve felsefe öğretmeninden oluşmuştur. Araştırmada veriler yarı yapılandırılmış görüşme formu yoluyla toplanmıştır. Veriler içerik analizi yoluyla analiz edilmiştir. Veriler arasındaki ilişkiler nedensel ağlarla kurulmuş ve gösterilmiştir. Araştırmadan ortaya çıkan sonuçlar katılımcı öğretmenlerin vatandaşlık ve vatandaşlık eğitimi kavramlarını birey, devlet, hak, sorumluluk vb. olmak üzere literatürle benzer kodladıkları görülmektedir. Araştırmada katılımcıların tamamının öğretim süreçlerinde vatandaşlık bilgi ve becerisine yönelik çalışmalar yaptıkları anlaşılmaktadır. Vatandaşlık eğitimi sürecinde öğretim programlarının izlendiği ve informal (plansız) eğitim yoluyla da destek alındığı görülmektedir. Katılımcılara göre vatandaşlık eğitimi üzerinde okul, çevre, öğrenci, öğretmen ve program kaynaklı olumlu ve olumsuz birçok faktör etkilidir.

Anahtar Sözcükler: Ortaöğretim, Vatandaşlık, Vatandaşlık eğitimi

INTRODUCTION

Citizenship education involves not only the qualities of citizenship but also people's perceptions and expectations of the concept, how the topic is managed, and its status in the past, present, and future. In the past, the concept of citizenship was closely related to law-obedient people. Today, however, it is more about educating people to be active participants and raising awareness in terms of responsibility, universal consciousness, empathy, and critical and creative thinking (Acun, Demir, & Göz, 2010; Kan, 2009). The concept of global citizenship arose due to rapidly developing technology, and the ease of cultural transmission and formation of common universal values (OXFAM, 2015; Penner & Sanderse, 2017; Schattle, 2008; UNESCO, 2014). The fact that cities are digitalized, and that technology is an everyday part of life leads to the concept of digital citizenship (Ribble, Bailey, & Ross, 2004; Schuler, 2002). In other words, changes around the world contributed to the concept of citizenship. This study discusses the concept of citizenship in terms of education and the perception of national citizenship. The concept of global citizenship arose from the fact of today's rapidly evolving technology that brings individuals closer together and facilitates intercultural transfer, and the formation of common values upon which people act. Digitalization of cities and the skills and knowledge in the use of technology effectively, ethically, and appropriately constitute the concept of digital citizenship (Ribble et al., 2004; Schuler, 2002). Various definitions have been applied to the concept of *citizen* based on different aspects, for example national, global, digital, etc. In this study, the notion of citizenship refers to perceptions of national citizenship and education.

Citizenship

In democratic societies, citizens have the right to participate in governance, enjoy equality before the law and freedom of thought, and have responsibilities such as obeying the law (Doğanay, 2003, p. 17). In this kind of system, the more active the people are in the administration, the better and more efficient the administration is. The definitions of citizenship, in fact, include the role of citizens. Citizenship in the national context is defined in various sources as follows: it is the identity limited to the rules of a piece of Earth that is defined by specific characteristics and on which people have a right to live freely (Ulutaş, 2014); the state establishes a legal status in which it determines the conditions and provisions of the unilateral will and establishes a link between people (Çiftçi, 2006, p. 113); the rights that citizens expect from the state and the rights that the state expects citizens to fulfill (Al-Sabeelah, Alraggad, & Abou-Ameerh, 2015). Berlach (1996) states that certain groups and individuals are privileged through certain laws and rights, and other individuals or groups may feel weak and deprived of their rights. For this reason, the concept of citizenship changes according to an individual's particular social, economic, ethnic, religious opinions, and values. All in all, citizenship includes political, social, and civil rights and the duties and responsibilities that are expected from citizens. In simple terms, citizenship refers to the relationship between individual and state and the understanding of identity formation.

The concept of citizenship does not only have a political connotation; it has a connotation relevant to daily life as well. Citizenship is not only about the political field, but also about the meaning that individuals give to life at personal, interpersonal, and socio-political levels (Veugelers, 2007). Osborne (1991, p. 24) emphasizes citizenship as an active and not passive concept; Engle and Ochoa (1988, p. 13) argue that, fundamentally, the heart of socialization and democratic citizenship is based on effective decision- making based on knowledge and scientific reasoning. Although individuals are born with the rights and responsibilities of citizenship, citizenship knowledge and skills are learned later and depend on their mental and affective activity. At this point, citizenship should not be considered beyond or above being an individual. On the contrary, the knowledge, skills, attitudes, and competencies acquired throughout life shape active citizenship. Hablemitoğlu and Özmete (2012) state that ensuring continuity

107

in a country and combining differences in common points depend on citizenship education. Individuals need to be supported through education in order to gain citizenship characteristics such as thinking, actively participating, producing, and developing. The state undertakes the task of providing citizenship knowledge, skills, values, and attitudes to individuals through formal (planned) education.

Citizenship Education

Citizenship education involves the teaching of the knowledge, skills, and values required for an individual to be a productive citizen. Burton and May (2015) state that citizenship education is to educate people on the political system/constitution, to encourage participation as voters, to be tolerant of differences, and to prevent political extremism. Kennedy (2012) states that citizenship education can be a policy initiated by the state, a curriculum carried out in a school, a lesson given by a teacher, or an activity of a student; Brooks and Holford (2009) state that citizenship education should be cognitive as well as emotional and social. The sociality of the individual as a social being is necessary for its socialization. Osborne (1991, p. 13) states that schools provide both socialization of the individual and education of citizenship through various courses. He also states that this education is a lifelong, dynamic process. Veugelers (2011) also states that citizenship covers most of life and argues education institutions should give importance to citizenship education, as it contributes to the development of the identity of young people, and, in particular, the hidden curriculum socializes individuals. Sunal and Haas (2002) explain that individuals learn citizenship by interacting and practicing with their groups (pp. 194-195). Citizenship is also related to high-level thinking skills. Schools and teachers have significant responsibilities in the acquisition of these skills. Barr, Barth, and Shermis (2013) state that teachers know what needs to be learned and how to feel about what is learned. Akdağ and Taşkaya (2010, p. 93) make suggestions to teachers on video surveillance, projects, and performance assignments, inviting experts to class and creating a discussion environment for the subject of citizenship education. Print and Smith (2000) states that students who learn citizenship in schools as a participant are likely to be active citizens for a democratic society. Remy (1978) states that the development of citizenship in high schools and primary schools is the focus of formal and informal education processes. In this context, it is possible to say that individuals' citizenship development is supported not only by teachers and program factors related to schools but also to their current life outside the school. Torney-Purta, Lehmann, Oswald, and Schulz (2001, p. 21) summarized the factors concerning citizenship education, as present in the model in Figure 1, International Civil and Citizenship Education Study Evaluation Framework.
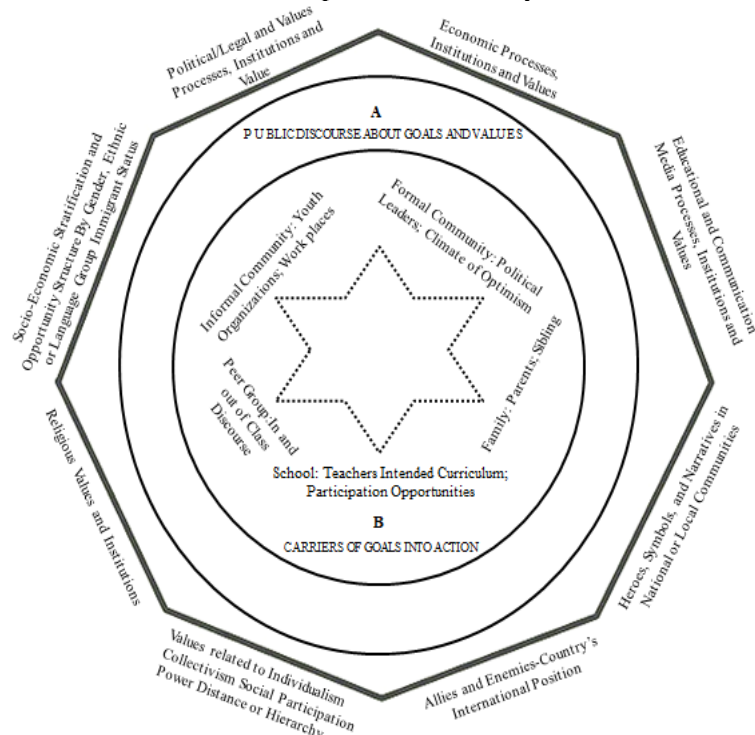

Figure 1. Model for IEA Civic Education Study

The model suggests that the subject of citizenship education is the individual, who grows with the values and gains of society. In this development process, cases and conditions related to disciplines such as politics, education, economy, sociology, religion, oral literature, international relations, media (communication), and so on are effective. Citizenship gains cannot be independent of the school, teacher, curriculum peer groups (in and out of school), family (parents/sisters), neighbors, immigration, language, gender, or television. As Akdağ and Taşkaya (2010, p. 90) state, in a child's education, family, environment, society, etc. also play as essential a role as school. People also acquire behaviors outside school such as seeking a legal remedy, exercising the right to vote and standing for election and adhering to rules. Similarly, in their research, Biesta, Lawy, and Kelly (2009) emphasize the insufficiency of schools and curriculums regarding citizenship education and the informal (structureless) experiences of young people outside school. Informal education is effective in citizenship education and, therefore, its contribution to this education process should be investigated.

Whether citizenship education should be given as a separate course or should be included in each course has been the subject of discussion. Som and Karataş (2015) argue that citizenship education should be integrated into other courses rather than being given as a separate course. Martin (2010), in his research, concluded that citizenship education could be taught through interdisciplinary or non-interdisciplinary methods in school processes. What is more, he specified in his study that citizenship education is considered valuable in many fields, for example maths, English, science, and social studies. In the secondary curriculum implemented in the 2018-2019 academic year, it was emphasized that there is an integrated approach that is associated with everyday life and different disciplines. Moreover, the curriculum includes eight key competencies that take into consideration the Turkey Qualifications Framework and support the development of knowledge, skill, and values of learners. One of these competencies is the acquisition of citizenship competence in all subjects. Citizenship competence aims to equip individuals with knowledge of social and political concepts in order to participate in civilized life based on democratic and active participation.

Various studies on citizenship education in the national and international literature have been carried out using qualitative, quantitative, and mixed-method approaches in primary, secondary, and higher education levels. There have been studies related to the opinions of the teachers of primary school, social studies or other courses on the application of citizenship education in primary education (Grades 1-8) (Arslan, 2014; Başaran, 2007, Çelik, 2009; Ekici, 2018; Ersoy, 2016; Güven, Tertemiz, & Bulut, 2009; İkinci, 2016; Özmen, 2011; Öksüz & Kansu, 2015). Also, there have been studies on the factors affecting the consciousness of citizenship according to the opinions of teachers (Keleş & Tonga, 2014). Moreover, the literature includes studies on teachers' perception of citizenship education competency (Ülger & Yel, 2013) and others, for example *"The Analysis of Human Rights, Citizenship and Democracy Lessons and Coursebooks"* (Er, Ünal, & Özmen, 2013; Sağlam & Hayal, 2015; Ünal, 2012) together with studies regarding the opinions of students in the same grade (Mısırlı-Özsoy, 2010; Yılmaz, 2013). There are also studies investigating the opinions of high school teachers on citizenship education (Bıçak & Ereş, 2018); the factors affecting the citizenship perceptions of high school students (Doğanay & Sarı, 2009); the perceptions of high school students about citizenship education (Dejaeghere & Hooghe, 2009; Kılınç & Dere, 2013); the role of geography courses, in active citizenship education (Atasoy & Koç, 2015) and the perceptions, opinions and competencies of teacher candidates (Acun et al., 2010; Doğanay, 2009; Koutselini, 2008; Martin, 2010; Şimşek, Tıkman, Yıldırım, & Şentürk, 2017; Yiğit, 2017). Moreover, descriptive and comparative studies have been carried out on citizenship education in Greece, Malesia, Canada, the U.K., China, and the USA (Cornbleth, 2010; Evans, 2006; Juanjuan, 2013; Kakos & Palaiologou, 2014; Mahmood, 2014; Osler & Starkey, 2006; Pontes, Henn, & Griffiths, 2019); along with descriptive and comparative studies in Turkey and the USA regarding citizenship education within the scope of social studies (Merey, Karatekin, & Kuş, 2012).

A review of national and international literature suggests that the notion of citizenship and citizenship training is a universal and recognizable topic that needs to be thoroughly thought through. In the literature citizenship is sometimes limited to a specific course and teachers' opinions are often collected with the use of pre-structured inventories or surveys. Teachers are the practitioners of a pre-determined

109

curriculum in the field, and they are expected to keep the curriculum alive. Since teachers are directly exposed to factors affecting citizenship education, it is important to examine the process through their eyes. Citizenship is a lifelong process and only becomes meaningful in education. Citizenship education is accepted as a fundamental goal in history, economics, geography, and other social science courses in high schools (Hoge, 2002). In addition, society, school, family, and student variables should be considered and evaluated together in citizenship education (Uğurlu, 2011). This study therefore contributes not only to the analysis of variables that influence citizenship education such as the environment, the teacher, the students, the school and the curriculum etc. but also to enriching possible educational interventions. This study aims to evaluate the factors affecting citizenship education according to the perceptions and experiences of secondary teachers. The questions posed for this general purpose are as follows:

How do teachers define the concepts of citizenship and citizenship education?

How do teachers provide citizenship competence to their students?

How do teachers explain the positive and negative factors and effects of school, environment, student, teacher, and curriculum on the development of citizenship in their students?

METHODOLOGY

Research Design

The research is a qualitative study that is patterned according to the phenomenological method. Phenomenology describes the common meaning of a few people in relation to a phenomenon or concept (Creswell, 2016, p. 77). In this research process, the aim is to reveal the in-depth meaning and nature of experience by focusing on the process of transforming experience into consciousness (Merriam, 2013a, p. 24; Patton, 2014, p.104). This in-depth study emphasizes secondary school teachers' perceptions and experiences of citizenship education. Phenomenological studies concentrate on investigating notions about which we have limited knowledge and, thus, contribute to a better understanding to them. Data sources in phenomenological studies generally tend to be the individuals or groups who have experienced and have been able to transfer the event (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2014, p. 20; Yıldırım & Şimşek, 2016). The concept of citizenship is associated with being a citizen and shapes the training of citizenship. The teachers that took part in this study who were responsible for citizenship education were asked to share their experiences and perceptions, thus contributing to a deep insight into the factors that potentially influence this training.

Participants

The participants were eight teachers working in three different secondary schools in the Şahinbey district of Gaziantep province during the spring term of the 2017-2018 academic year. The participants were selected by taking maximum diversity using a purposive sampling method. The key criterion was *"The school should have low-middle-high level socio-economic structures, and the teachers should come from different branches and seniority levels".* Before the study, Şahinbey District National Education Directorate was approached to obtain the necessary permission. The schools were chosen from different socio-economic levels using the information received from the provincial national education directorate. Participants were volunteers. The participants who work in these schools were teachers of different branches of social sciences. The demographic characteristics of the participants are given in Table 1.

Table 1.
Data on the demographic characteristics of participants

Participant	Gender	Branch	Years of service	Type of school and Social Economic Level (SEL)	The duration of employment in their school
K1	Male	Geography	22 years	Anatolian High School-Middle	4 years
K2	Male	Philosophy	7 years	Anatolian High School-Middle	3 years
K3	Male	History	23 years	Anatolian High School-Middle	12 years
K4	Female	History	4 years	Anatolian High School-Upper	1 year
K5	Male	History	23 years	Anatolian High School-Low	10 years
K6	Female	Geography	22 years	Anatolian High School-Low	4 years
K7	Male	Philosophy	26 years	Anatolian High School-Upper	14 years
K8	Male	Philosophy	10 years	Anatolian High School-Low	7 years

Two of the participant teachers were female and six males. Three of these teachers were teachers of history, three philosophy, and two geography, and all had worked in at least one and at most four different provinces. In addition, their years of service vary between four and 36 years, and their professional time in their respective schools' range from one to 14 years.

Data Collection Tools

In phenomenological research, the interview is the primary data collection tool and is used to reveal the underlying structure and reality of experiences (Merriam, 2013a, p. 25). In this study, a semi-structured interview form was prepared by the researchers in order to investigate in-depth perceptions and experiences of citizenship education of teachers working at secondary schools. The semi-structured interview form consisted of two parts. In the first part, items that included participant's demographic information "gender, branch, years of service, provinces they work, the socio-economic level of the school in which they work and their duration of employment in their school" were included. The semi-structured interview form that was designed for the study was assessed and revised by three experts in the field, and certain changes were subsequently made. In line with the experts' views, *"For you, what is citizenship?* was changed to *"What do you associate with the notion of citizenship?"*. The second part consisted of four open-ended questions. The semi-structured interview form was presented to three experts for their opinion. Following feedback from these experts, the questions were presented to two teachers (geography and philosophy teachers) to check their intelligibility and applicability. Following these checks, a semi-structured interview form with four questions was prepared for application.

Data Collection

Data was collected through interviews in May and June in the 2017-2018 spring semester. A recording device and note-taking were used to collect the data. To prevent data loss, the teachers who did not want to use voice recorders verified their quotations after the interviews. The interviews were conducted in the teachers' lounge or the school guidance office at times when teachers were available, such as during free classes or at the end of their shift. In general, the interviews lasted for 25-30 minutes.

Data Analysis

The data obtained through interviews was first transferred to computer (Microsoft Office Word). Codes and themes were generated from the data analyzed through content analysis. Themes and codes were determined with by the selective coding method. Lincoln and Guba (1985) state that expert control is the most important method in ensuring the reliability of a study (cited in Creswell & Miller, 2000). Merriam (2013b, p. 221) also states that a necessary strategy in terms of validity and reliability of a study is to interview colleagues for compliance of the findings with the raw data. In this context, the relevant codes and themes created by the researchers were presented to expert opinion. The coherence rate between the encoders were suggested by Miles and Huberman (1994, p. 64); "*P (Percent of Reconciliation) = [Na (Opinion Units)/Na (Opinion Units) +Nd (Visibility Separation)] X 100*" was

111

calculated with the reliability formula. Codes and themes were studied to determine compatibility between researcher and expert codes, and the fit value between the coders was calculated as 92%. Miles and Huberman (1994, p. 64) state that consensus among coders should be within a range of 90%. In this context, the compliance value is sufficient for reliability. The point on which the researchers disagreed was how some of the codes were expressed. For example, the expression "*being a nonchalant citizen*" was changed to "*being unconcerned about citizenship education*", as agreed.

Causal networks within the findings of the study were identified. Causal networks are networks that illustrate the causal connections between variables derived from multi-case analysis (Miles & Huberman, 1994, p. 209). For drawing the causal networks in the research, Microsoft Office PowerPoint software was used. In addition, each finding was supported with direct quotations, and the symbol "K" was used for the participants (e.g., K1, K2...K8, etc.). In the quotations, the participant code, the interview date, and the meeting place were given, for example [K2, 09.05.2018, Guidance Office].

Creswell (2012) states that researchers should be aware of any ethical problems that may arise in qualitative research and that various methods should be developed for these problems. In this study, the required permission was obtained from the Gaziantep Provincial Directorate of National Education for the schools where the study was to be carried out. Before the interviews, teachers were given a receipt of permission, in which the purpose of the study was explained. Interviews were conducted in places where teachers could express themselves comfortably (the teachers' lounge or guidance office). The data that was noted after each interview was read to the teachers. Also, raw data and findings obtained from the research were stored on computer.

FINDINGS

This study aimed to examine the citizenship education process in depth according to the opinions of eight secondary school teachers. The findings are presented below in order according to the sub-objectives of the research.

Concept Perceptions and Teaching Experiences

According to the participants, the concept of citizenship is divided into two themes: the individual and state. For the participants, the concept of citizenship is individual-based to which they gave different meanings. Participants [K1, K2, K5, K6, K7] perceived the concept of citizenship as knowing the rights of citizenship; [K4, K8] perceived it as a legal status and identity; [K1, K4] perceived it as the awareness of citizenship responsibility; [K4, K6] perceived it as being a member of a state; [K3, K7] perceived it as having legal responsibilities; and [K1] perceived it as fulfilling the duties of citizenship. The theme of 'state' revealed that only the teachers [K4] expressed the concept of citizenship as the responsibility of the state to the individual. The quotations for these views are given below:

"Citizenship is having rights defined by the laws of the country where the borders are located. Citizenship education is the transfer of information about rights, duties, and responsibilities in the law through schools. First of all, I am trying to make them aware of the rights that the constitution gives us. During the lessons, we talk about tasks against one's self, family, environment, and state." [K1, 09.05.2018, Teachers' Lounge]

"The individual has responsibilities towards the state, just as the state has responsibilities towards each individual. It can also be described as being a member of a state, and therefore having a status that includes certain legal title and provisions" [K4, 16.05.2018, Teachers' Lounge]

112

The participants' answers regarding what constitutes the concept of citizenship education were classified into three themes: individual, state, and state and individual. Their answers revealed that they perceive citizenship education in the context of the state. In this context, [K5, K7] perceive the concept of citizenship education as raising citizenship awareness; [K4] perceives it as raising awareness of national values; [K6] perceives it as forming a sense of belongingness; [K6, K8] perceive it as the acquisition of beneficial behavior. The individual context theme showed that participants [K1, K2, K3, K4, K7] saw citizenship education as rights and responsibility education; participant [K6] thinks that the individual develops respect for himself and his state. The following is one of the participants' views on these findings:

"To be able to teach individuals about belonging to the state. To exhibit useful behavior for the sake of the state. I think it is both teaching self-respect and teaching individuals to respect their country. Citizenship education. Uhmm, I think it is education about making individuals realize their rights and responsibilities towards the state as a citizen…" [K2, 09.05.2018, Guidance Office]

In the study, the participants were asked about their experiences of citizenship education, and all teachers explained with examples that they were working on citizenship knowledge and skills in teaching processes. Three of the participants [K1, K3, K6] carried out citizenship education according to the content of the curriculum; another three participants [K2, K7, K8] performed interdisciplinary education and one participant [K5] carried out citizenship education through formal and informal education. In addition, one participant [K4] stated that citizenship education is realized through latent learning. Exemplary teaching of participants' experiences in citizenship education is given in the following quotations:

"However, as the occasion arises, we convey the beauty of our country and its strategic geopolitical position in the world. In addition, patriotism is conveyed from time to time with questions and answers within the subjects of citizenship consciousness." [K1, 09.05.2018, Teachers' Lounge]

"I tell students the requirements and responsibilities of being a human in a general context and of being a citizen in Turkey in Democracy and Human Rights courses. Explaining the subject in the related fields of the Philosophy and Sociology course, I increase the perception of students about citizenship through examples." [K2, 01.06.2018, Guidance Office]

Factors Affecting Citizenship Development

In the present study, the positive and negative effects of participants' opinions regarding factors such as school, environment, student, teacher, and curriculum on citizenship education were emphasized. The findings obtained for this sub-purpose are presented through causal relationships.

School-Oriented Factors Affecting Citizenship Development

In the study, positive and negative factors affecting the development of citizenship and arising from the school environment were examined according to the participants' views. Relevant findings are presented in Figure 2 and Figure 3.

113
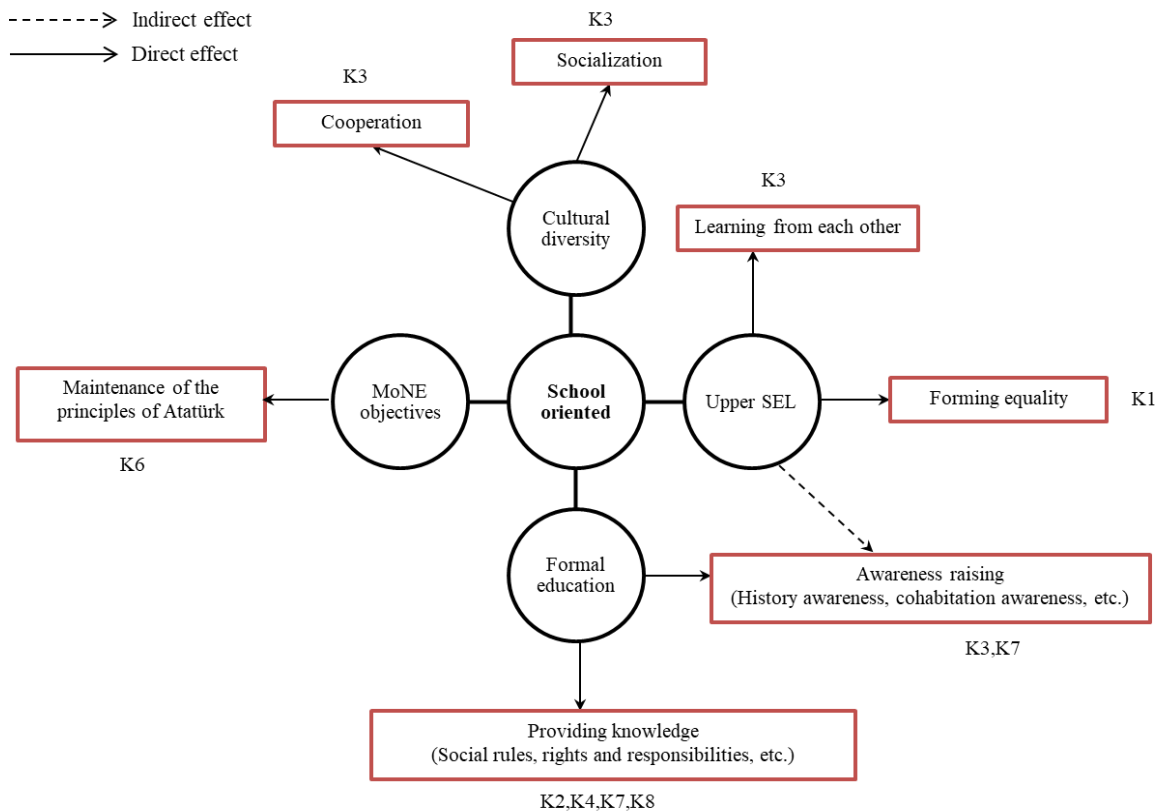
Figure 2. Causal network related to positive school-based factors affecting citizenship development

The participants see the multicultural atmosphere of the school environment, the upper socio-economic level of the school, the objectives of the Ministry of National Education, and formal (planned) education as positive factors affecting citizenship education. Participant [K1] mentioned the positive effects of the multicultural structure of the school in promoting socialization and cooperation. Participant [K6] pointed to the positive effects of the maintenance of the principles of Atatürk by the Ministry of National Education (MoNE).

Participants [K2, K4, K7, K8] consider the knowledge provided by informal education as a positive factor affecting citizenship education, while participants [K3, K7] consider awareness raised in the formal education as a positive factor affecting the citizenship education. The following criteria were specified as positive factors supporting citizenship development: equality among students due to upper socio-economic level [K1], the fact that students know each other well [K3], and that the school raises students' awareness [K3, K7]. The following are some of the participants' views on these findings:

"All colors of society coexist in a school. Socialization, awareness, cooperation, and historical awareness are provided." [K3,11.05.2018, Teachers' Lounge]

"Courses have a positive effect on citizenship consciousness. The development of the socio-economic environment of the school positively affects the consciousness of citizenship, because students who study at schools in an economically and socially developed environment are conscious individuals." [K7,16.05.2018, Teachers' Lounge]
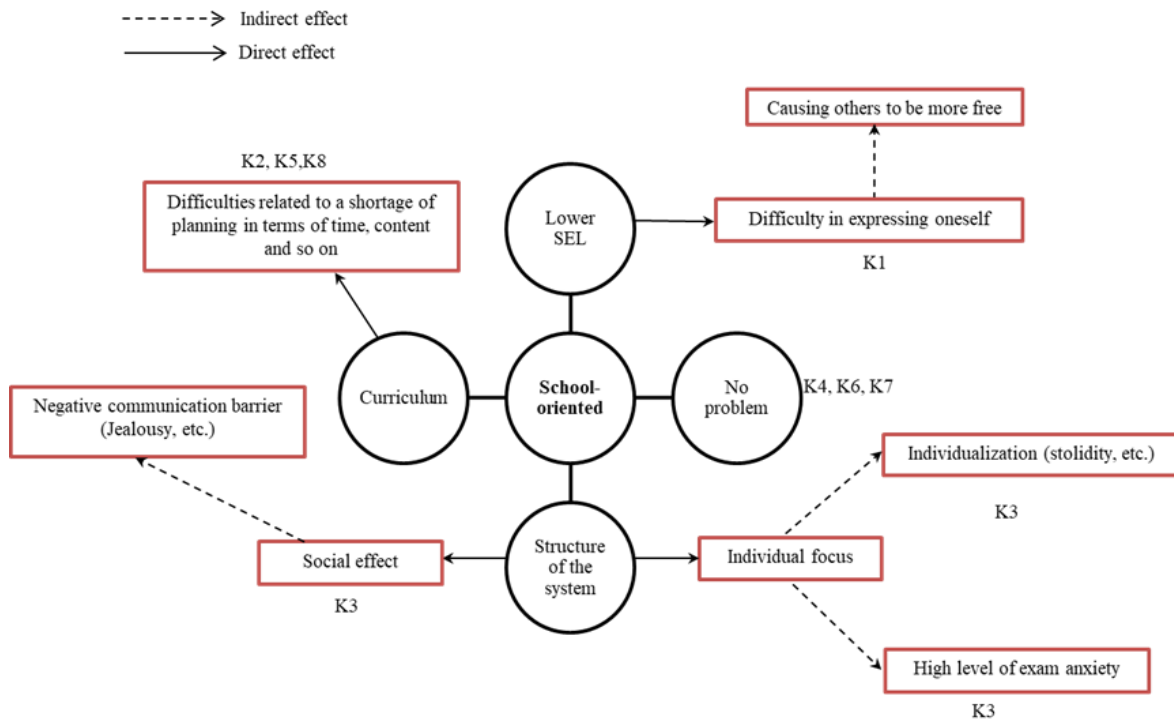
Figure 3. Causal network related to negative school-based factors affecting citizenship development

The participants' responses regarding the school-oriented factors that negatively affect citizenship education were categorized under the themes of curriculum, system structure, and lower socio-economic level. Participants [K4, K6, K7] believe that there are no factors in which the school adversely affects citizenship education. One of the participant teachers [K1] states that students studying at low socio-economic level schools have difficulty in expressing themselves, and this situation has caused others to be freer, which is one of the school-oriented negative reasons. Three participants [K2, K5, K8] think that where there are difficulties related to a shortage of planning in terms of time, content, and so on adversely affect citizenship education. In addition to these findings, one participant [K3] believes that the education system causes students to individualize, to have a high level of exam anxiety, and to have negative communication among themselves (jealousy, etc.), which are considered negative factors. The participants' opinions on these situations are as follows:

"Socio-economic subculture, the economic structure of disadvantaged groups cannot express themselves well. These people constitute free environment by pulling themselves back" [K1, 09.05.2018, Teachers' Lounge]

"There are also systemic reasons. Wrong examples, test anxiety, selfishness, self-interest, note-centered individualization, and indifference lead to jealousy." [K3,11.05.2018, Teachers' Lounge]

Environmental Factors Affecting Citizenship Development

In the study, positive and negative factors that affect citizenship development were examined according to the participants' views. The findings of this sub-objective are presented in Figure 4 and Figure 5.
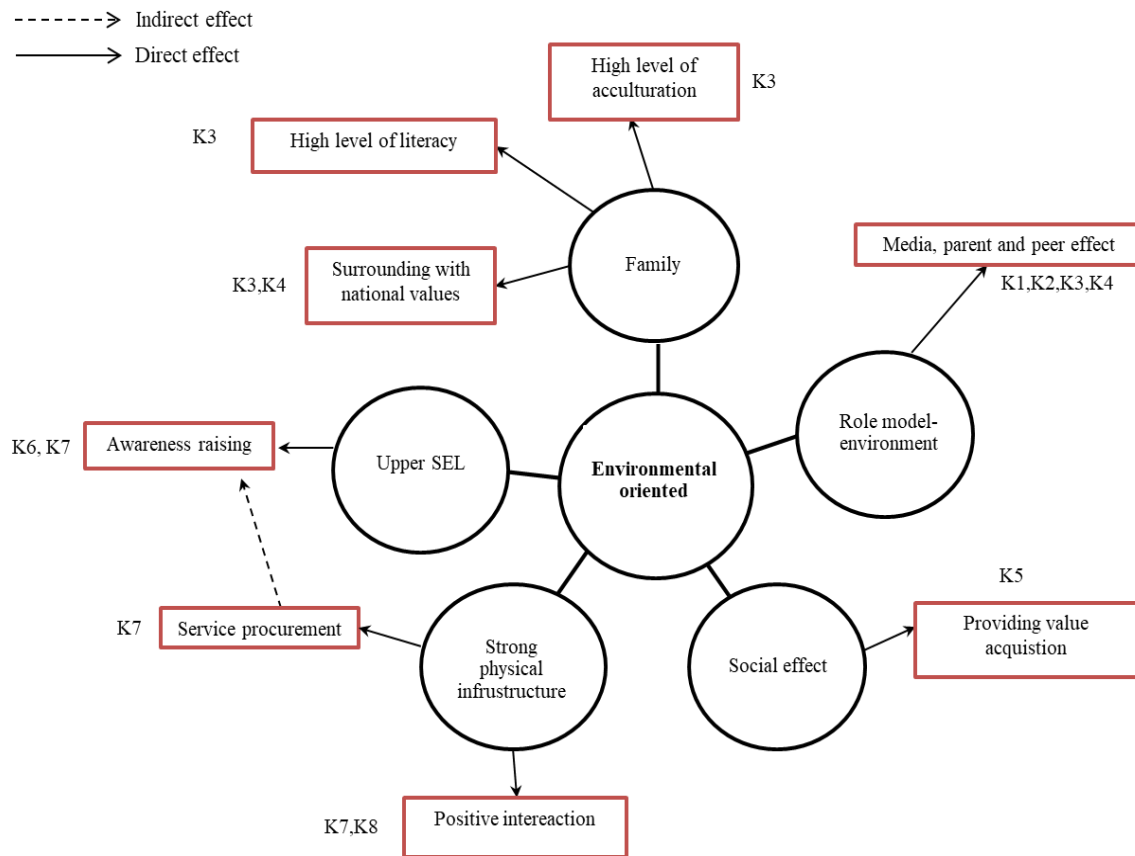
Figure 4. Causal network related to positive environmental factors affecting citizenship development

Participants think that family, role models, environment, upper socio-economic level, strong physical infrastructure, and social impact have a positive effect on citizenship education. Several of the participants believe that the high acculturalization of the family [K3], sufficient literacy level [K3], and being surrounded by national values [K3, K4] have a positive effect on citizenship education.

Participants [K1, K2, K3, K4] refer to the importance of role models in the media, parents, friends, etc. and participant [K5] believes in the role of the society. Participants [K6, K7] believe that the upper socio-economic level and the strong physical infrastructure also benefit individuals' awareness. Participants [K6, K7] believed that an upper socio-economic level and strong physical substructure also benefit individuals' awareness. Particularly in this context, participant [K7] believes that people can become conscious of the services they will get from a strong physical infrastructure, while participants [K4, K6, K7] think that it makes interaction between individuals more positive. The following are some of the participants' views on these findings:

"Individuals such as teachers and siblings can have a positive impact on students. In adolescence, TV series, artists, mothers, fathers, relatives can leave more lasting effects on the students. [K1, 09.05.2018, Teachers' Lounge]

"The environment is an important factor in raising the awareness of the individual about citizenship. A good environment means a good citizen. The family and the environment of the individual provide for the shaping of citizenship. Having a family with national values means raising a good citizen, a responsible individual. Young people are more affected by their environment. The family and environment have the greatest effect on shaping the person. [K4,16.05.2018, Teachers' Lounge]

116
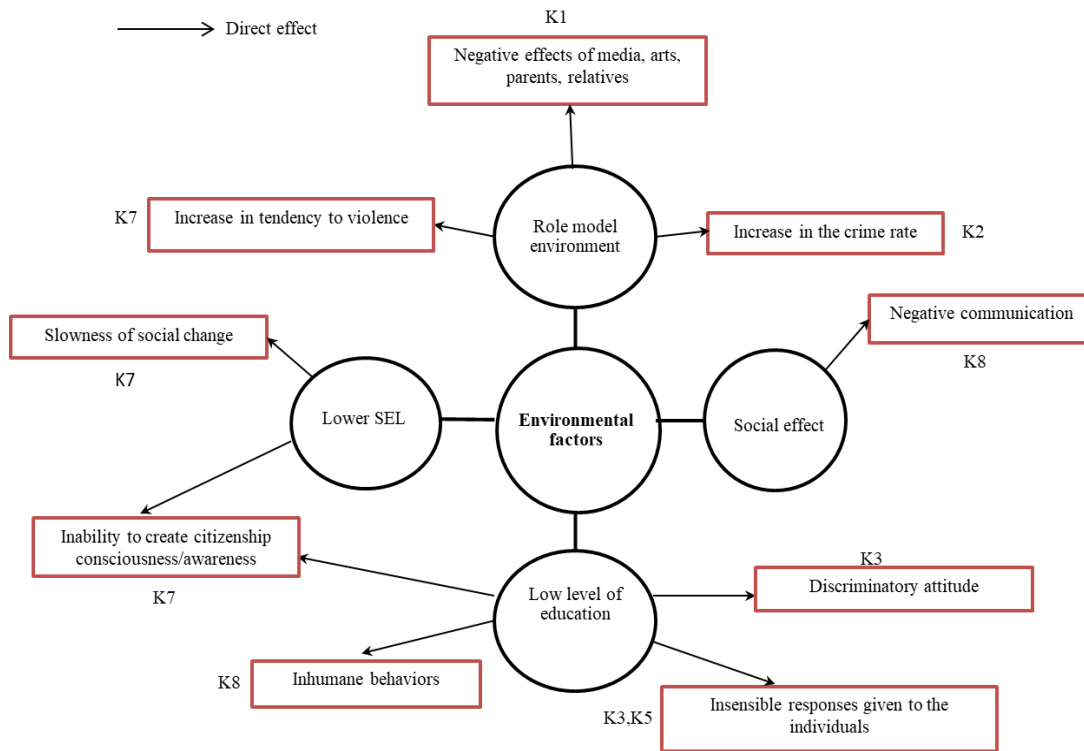
Figure 5. Causal network related to negative environmental factors affecting citizenship development

Participants think that environmental factors such as role models, environment, low socio-economic level, low education level and social effect have a negative impact on citizenship education. Among the participants, some think that an increase in the tendency to become violent [K7], negative effects of media, arts, parents, relatives [K1], etc. and the increase in crime rate [K2] affect citizenship education adversely. Negative communication between individuals in the living environment [K8], the slowness of social change caused by a low socio-economic condition of the environment [K7], and the lack of citizenship consciousness [K7] are thought to affect the development of citizenship adversely. In addition, among the negative effects, the following factors were mentioned: low education level of the environment creates a destructive, discriminatory attitude [K3], insensible responses given to individuals [K3, K5], the inability to create citizenship consciousness [K7] and inhumane behavior [K8]. The participants' views on this point are as follows:

"It is easier for citizens who grow up in a negative environment to be involved in crime. As a social citizen, every individual is very easily affected by the environment. [K2, 01.06.2018, Guidance Office]

"People have a lack of knowledge of citizenship and sometimes exhibit negative behaviors that are incompatible with citizenship and humanity, and thus can be a bad example. [K8,01.06.2018, Teachers' Lounge]

Student-Oriented Factors Affecting Citizenship Development

In the study, the positive and negative student-oriented factors that affect the development of citizenship were examined according to the participant views. Relevant findings are presented in Figure 6 and Figure 7.

117
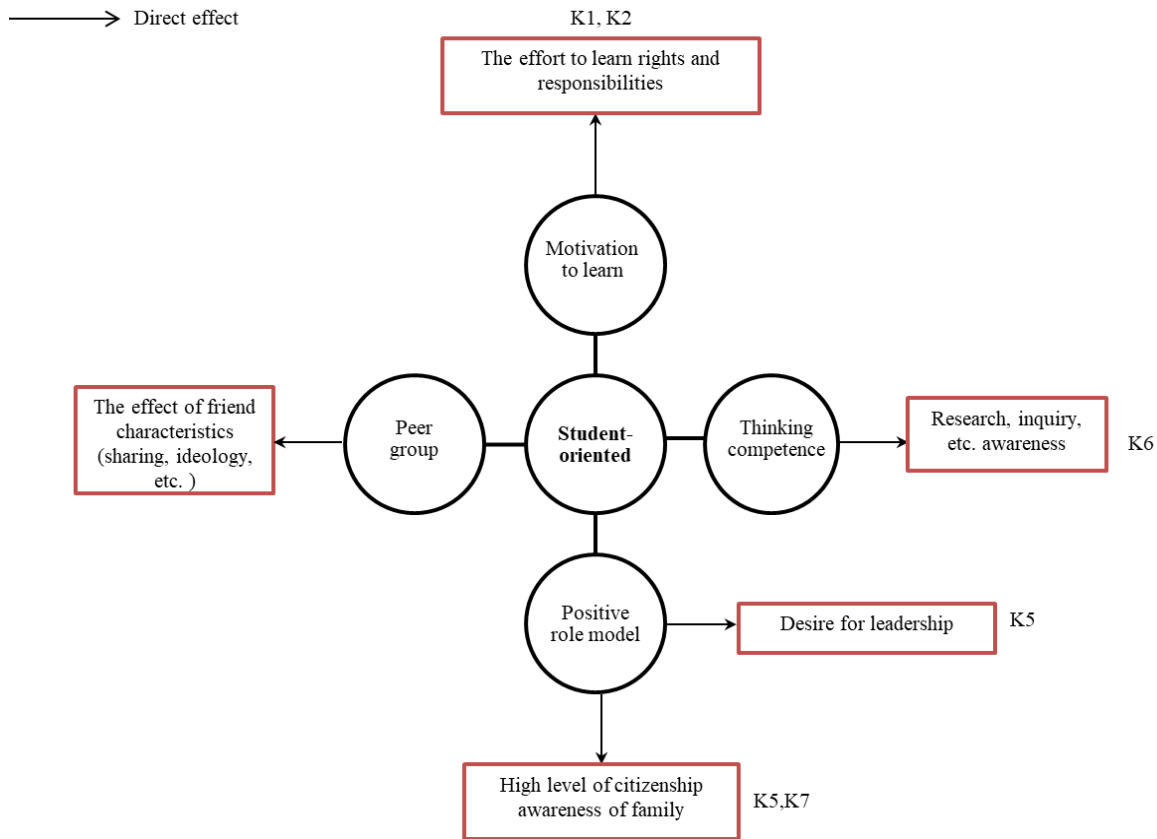
Figure 6. Causal network related to positive student-oriented factors affecting citizenship development

Participants stated that factors such as the desire to learn, positive role-modeling, peer characteristics, and competence in thinking have a positive effect on students' citizenship education. For participants [K1, K2], if students make an effort to learn their rights and responsibilities and, for participant [K6], if students have research, inquiry awareness, these students' citizenship education is positively affected. It is also thought that students' leadership desire [K5] and a high awareness of citizenship within the family [K5, K7] are a positive role model for students. In addition, participants [K3, K4, K6, K8] believe that peer-sharing during high school lead to positive gains in citizenship development. Below are the opinions of participants K4 and K6:

"If the student group is well-educated, the student becomes more likely to be a good citizen. The ideology and perspective of the group in which the student is involved substantially affect the individuals at high school age. If the group has good values and citizenship consciousness, the individual can also gain this value. Peer pressure is effective for students because young people are open to being affected by age." *[K4,16.05.2018, Teachers' Loung]*

"An investigating student is a student who asks for his/her rights. Usually, the social circle has a positive impact on students. A nice behavior exhibited by peers is accepted easily."[K6,01.06.2018, Guidance Office]
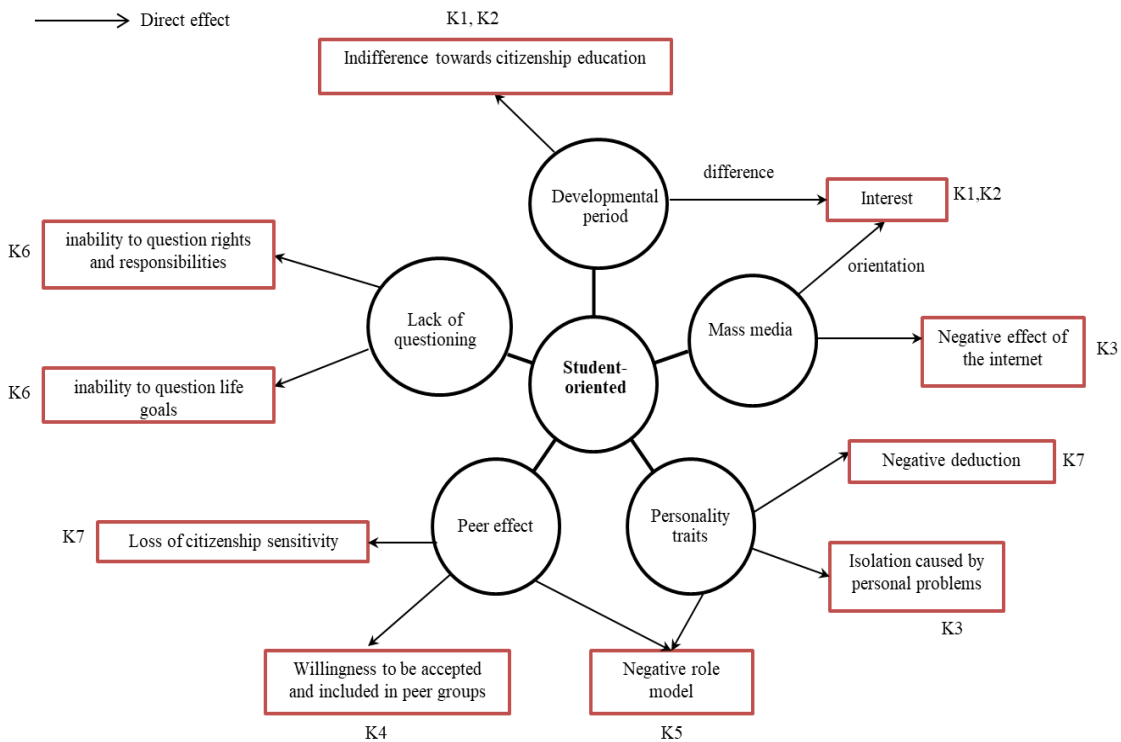
Figure 7. Causal network related to negative student-oriented factors affecting citizenship development

In the study, negative factors stemming from the students affecting citizenship education were collected within the context of the developmental period, mass media, personality traits, peer effect, and lack of questioning. Participant [K6] considers students' inability to question life goals, rights, and responsibilities is a negative factor. Participants [K1, K2] consider students' insensitivity and interest in different directions as characteristics of developmental periods and think that this is an obstacle to the development of citizenship. It is believed that the negative effect of the orientation of the mass media [K1, K2] and the internet [K3] have negative effects on students.

Students' negative role models in terms of their personality traits [K5], tendency to make negative inferences [K7], and isolation caused by personal problems [K3] suggest that citizenship education is not a desired quality. One of the findings of the study is that the loss of citizenship sensitivity [K7], students' willingness to be accepted and included in peer groups [K4], and negative role modeling [K5] are negative effects of peers on the development of citizenship. The views of participants K3 and K4 are as follows:

"The type of student who is lonely, irresponsible, and troubled with idle attitudes sets a bad example. Very fast popularization and encouragement of bad examples such as internet environment... "[K3,11.05.2018, Teachers' Lounge]

"Students often start bad behavior due to malicious groups of friends. Involvement in a group that does not know its responsibilities completely attracts individuals to this negativity. Peers are more effective than family members for students. Fear of rejection and desire to be included in the group due to age."[K4,16.05.2018, Teachers' Lounge]

Teacher-Oriented Factors Affecting Citizenship Development

In the study, positive and negative teacher-oriented factors that affect the development of citizenship were examined according to the participant's views, and their findings are given in Figure 8 and Figure 9, respectively.
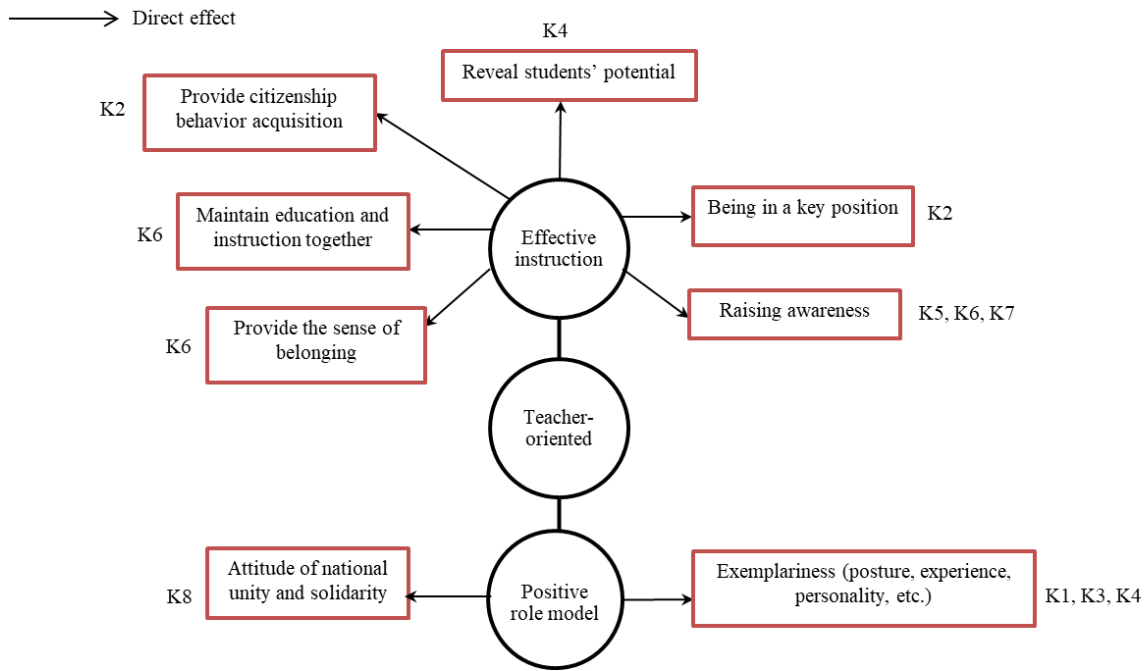
Figure 8. Causal network related to positive teacher-oriented factors affecting citizenship development

Teacher-oriented factors that positively affect the development of citizenship are grouped in the theme of effective teaching and positive role model. Participant [K2] perceives teachers being in a key position to encourage the acquisition of citizenship behavior as a positive factor in an effective teaching context. In addition, in this context, a teachers' ability to help a student reach their potential [K4], to maintain unity of education and instruction [K6], to provide students with a sense of belonging [K6] and to raise awareness [K5, K6, K7] is considered positive in terms of citizenship education. It is also believed that teachers' positive attitudes in the context of being a role model of the characteristics of national unity/solidarity attitudes [K8] and setting an example (posture, experience, personality, etc.) [K1, K3, K4]. Below are the opinions of participants K4 and K8:

"A teacher who is a good citizen educates students to exhibit positive behavior. The students usually take their teachers as role models. Teaching is already the art of revealing the power of the individual. [K4,16.05.2018, Teachers' Lounge]

"Their emphasis on national unity and solidarity and setting an example with their behavior. Contributing to the subject with their commitment to national values by exhibiting an exemplary identity and personality." [K8,01.06.2018, Teachers' Lounge]
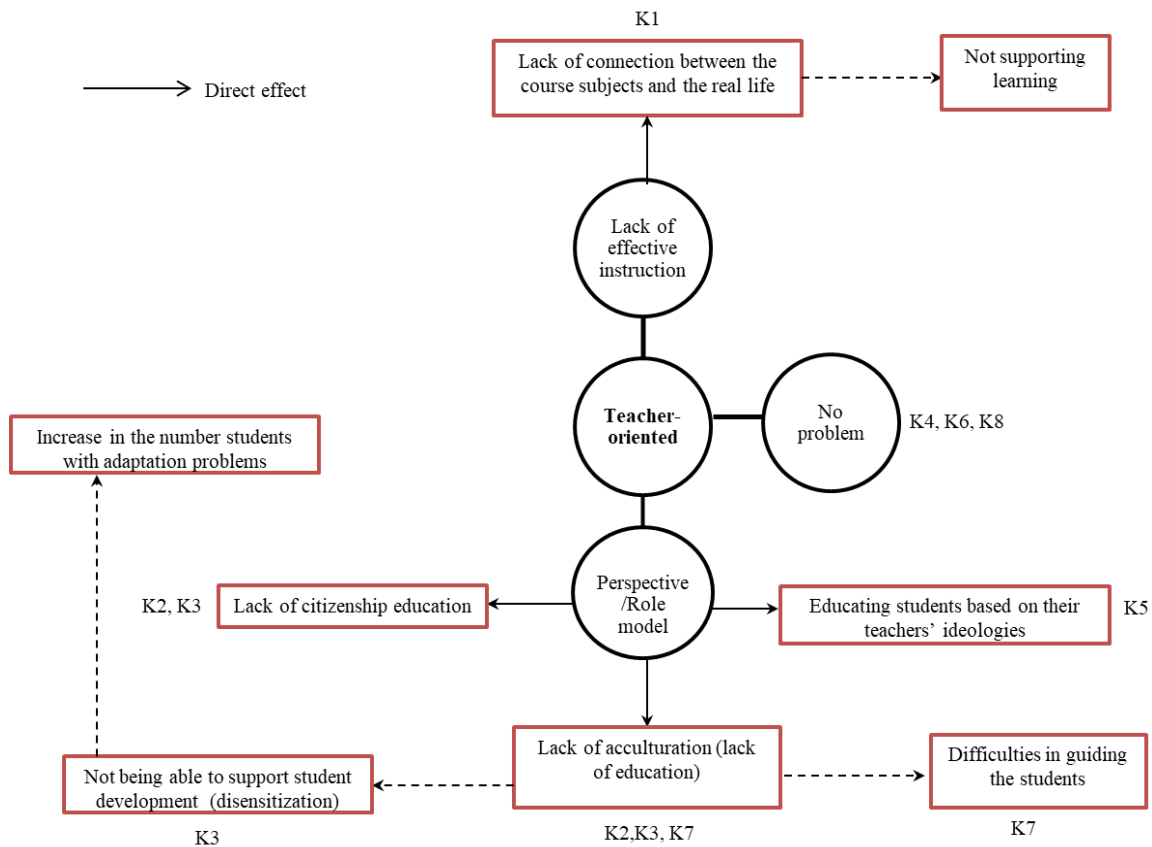
Figure 9. Causal network related to negative teacher-oriented factors affecting citizenship development

In the research, teacher-oriented factors that affect the development of citizenship negatively are grouped in effective teaching and positive role model themes. Three participants [K4, K6, K8] think that teachers do not cause any negative effect. Looking at the theme of effective teaching, participant [K1] thinks that learning is not supported in a positive way when teachers cannot establish a connection between their course subject and real life. The perspective/role model theme revealed that if teachers educate students based on their own ideology [K5]; if there are deficiencies in acculturation [K2, K3, K7]; if citizenship education is insufficient [K2, K3] problems such as difficulties in guiding students [K7] and adaptation among young people [K3] may occur. Below are the views of the participants K1 and K7:

"The teacher should involve daily life while explaining subjects. This is a general problem of our national education system. Students are more interested in the subjects that are based on true events "[K1, 09.05.2018, Teachers' Lounge]

"The fact that the teacher does not have sufficient knowledge on this subject affects the students adversely, and the teacher is inadequate in guiding students." [K7,16.05.2018, Teachers' Lounge]

Curriculum-Oriented Factors Affecting the Development of Citizenship

The positive and negative curriculum-oriented factors affecting the development of citizenship were examined through the views of the participants. The related findings are presented in Figure 10 and Figure 11:

121
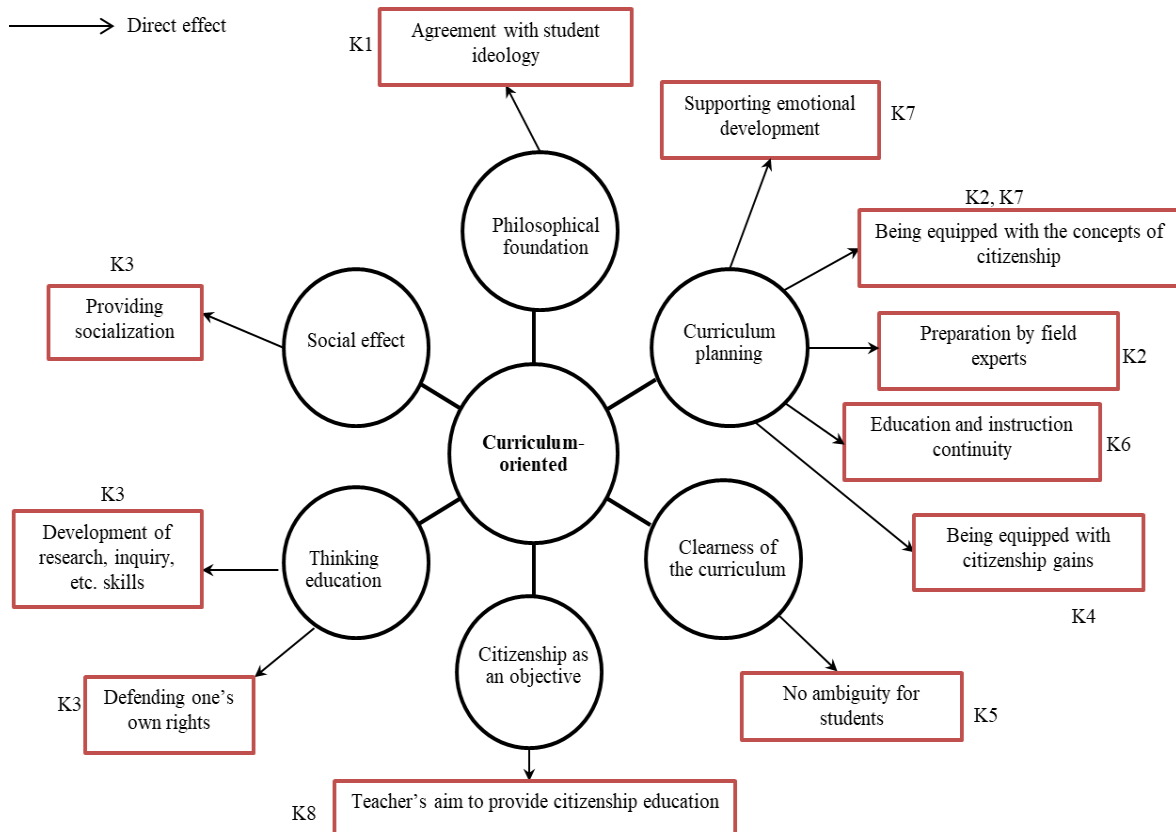
Figure 10. Causal network related to positive curriculum-oriented factors affecting citizenship development

It is noteworthy that the participants in the research gave more explanations about the curriculum. It is observed that the curriculum-oriented factors that positively affect citizenship education are grouped in the themes of a philosophical basis, planning of the curriculum, clarity of the curriculum, citizenship as a goal, thinking education, and social impact. The factors that affect the citizenship education positively are as follow: the agreement between the philosophy of the curriculum and student ideology [K1]; the social effect of the curriculum and the fact that the curriculum develops students' research and inquiry skills together with the skill of defending one's rights [K3]; curriculum and the teachers aim to provide citizenship education [K8]; curriculum is clearly understood without confusion from students [K5]. Looking at participants' views, it is believed that features of the curriculum such as supporting emotional development as part of the curriculum planning [K7]; being equipped with the concepts of citizenship [K2, K7]; being equipped with citizenship gains [K4]; preparation by field experts [K2]; education and teaching continuity [K4] have positive effects on the development of citizenship. Some participants' views on this are given below:

"Citizenship awareness is established by the concepts and activities in a well-prepared curriculum determined and prepared by the experts in the field." [K2, 01.06.2018, Guidance Office]

"Success is gained if the idea is short, concise, and understandable, because young people do not enjoy long and meaningless expressions." [K5,01.06.2018, Teachers' Lounge]
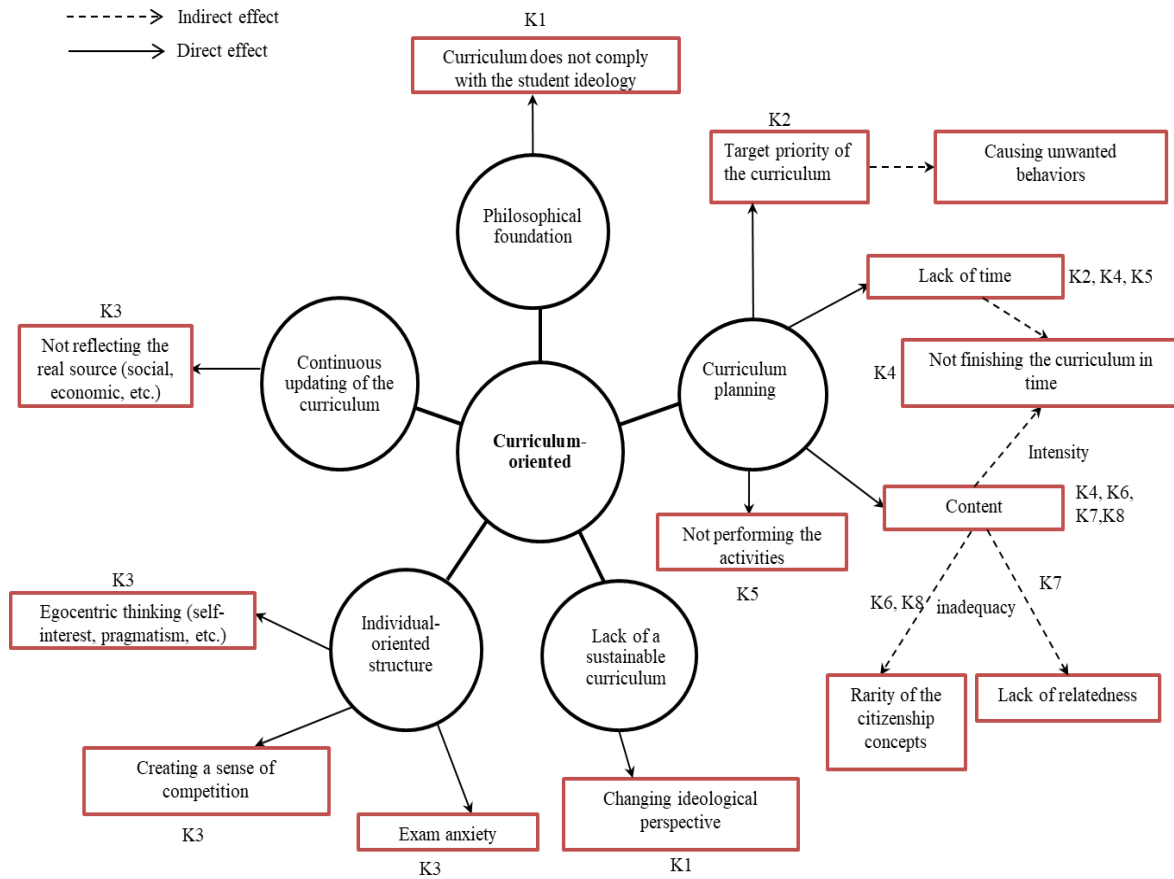
Figure 11. Causal network related to negative curriculum-oriented factors affecting citizenship development

In the research, it is noteworthy that the participants attributed a negative meaning to the curriculum for affecting citizenship education. The curriculum-oriented factors that adversely affect the development of citizenship are grouped in the themes of philosophical foundation, planning of the curriculum, lack of a sustainable curriculum, individual-oriented structure, and continuous updating of the curriculum. Participant [K3] thinks that a constantly updated curriculum cannot provide students' social, economic, etc. needs and that the curriculum creates a sense of competition among students because it is individual-oriented and it encourages students' egocentric thinking and test anxiety.

Participant [K1] states that the development of citizenship is also negatively affected when the philosophy of the curriculum does not comply with student ideology. Participant [K1] states that the ideological perspective has changed since the curriculum is not sustainable, and this has a negative effect on students. The theme of curriculum planning reveals that errors in the target priority of the curriculum cause unwanted behaviors [K2]; the inability to process activities [K5] and lack of time [K2, K4, K5] negatively affect citizenship education by preventing finishing the curriculum in time. Moreover, the rarity of citizenship concepts [K6, K8] and lack of relatedness [K7] was mentioned as negative effects of curriculum content. In addition, participant [K4] states that due to the amount of content, it is not always possible to finish the curriculum in time, which is a negative factor in citizenship development. Some participants' opinions are presented below:

"Knowingly or unknowingly, providing citizenship values in school, lessons and social activities in the background..." [K6,01.06.2018, Guidance Office]

"Since the curriculum is theoretical, it can be difficult for students to connect it with social life." [K7,16.05.2018, Teachers' Lounge]

123

DISCUSSION AND CONCLUSION

Individuals can become members of a nation or a state from the moment they are born and live with the rights and responsibilities of life-long citizenship. Individuals learn the desired characteristics of citizenship through planned or random training. Brooks and Holford (2009) state that learning citizenship should be emotional and social as well as involving identity and action dimensions. With citizenship education, individuals should gain knowledge about various political concepts, citizenship rights and responsibilities, national and global problems (Ersoy, 2016). The main objective of citizenship education is to educate individuals to be democratic, knowledgeable, and critical thinking citizens who can actively participate in civilian life and state affairs (Schugurensky & Myers, 2003). It is quite important to know how citizenship education is done in the formal context and which dynamics are affected by this process. This study aimed to examine the positive and negative factors affecting citizenship education in high school education according to the opinions of secondary school teachers.

Martin (2008) stated that it is important to determine the citizenship perceptions of primary and secondary school teachers who will play a role in the education of future generations. This study examined the concept of citizenship and citizenship education believing that the perception of situations, events, objects, and concepts affects teachers' education/teaching processes. In the literature, citizenship is generally seen as a link between the individual and the state, and the legal status provided to the individual and the rights and responsibilities of the individual in the context of this status (Engle & Ochoa, 1988). Veldhuis (1997) states that citizenship includes a civil dimension such as individual freedoms, a political dimension related to political rights and duties, a social and cultural dimension including social relations and common cultural heritage, and an economic dimension relating to production and consumption activities.

The findings of this study reveal that participants conceptualize citizenship in the shape of knowing citizenship rights and responsibilities and acquiring status and identity. Yiğit (2017) examined the concepts of citizenship and Turkish citizenship from the perspective of teacher candidates in the field of social studies. He determined that teacher candidates make sense of citizenship concepts in the context of rights and responsibilities. In their study conducted to examine citizenship education according to social sciences and primary school teacher candidates, Şimşek et al. (2017) found that candidates code the concept of citizenship on themes of belonging, rights, law, duty, responsibility, loyalty, freedom, and so on. Similarly, in his study with prospective teachers, Koutselini (2008) specified that citizenship is defined using words like duty, active interaction, and so on. In this study, participants explain citizenship education in the shape of citizenship awareness training, education of rights and responsibilities, national values and gaining a sense of belongingness to the state, and so on. In the study conducted by Kondu and Sakar (2013), teachers think that citizenship education is related to the responsibility to become citizens, basic rights and freedoms, values education, and so on. In this context, it can be said that the meanings attributed by the participants to the concepts of citizenship and citizenship education coincide with the definitions of the concept in the literature, and they are similar to those of different research findings.

Som and Karataş (2015) state that students should participate actively in the process of citizenship education, and teaching methods should be employed together with knowledge, skills, and values, and the curriculum should be prepared in this context. In this study, all the participants had conducted studies on citizenship knowledge and skills in the teaching processes, and took into account the content of the curriculum. They were involved in interdisciplinary education and carried out informal (unplanned) citizenship education. Similarly, Güven's (2002) study concluded that teachers handle citizenship activities with an interdisciplinary approach. Citizenship education requires the co-operation of theory and practice. Active participation is the most important act of citizenship education. Individuals can learn citizenship if they exist in social, political, economic, cultural, etc. contexts. Citizenship education requires learning beyond the boundaries of formal (planned) learning with schools, teachers, students,

124

managers, and other participants (Uğurlu, 2011). Torney-Purta (2002) states that schools have the most public space in which young people spend the majority of their time from the age of 6 to 17 and that teachers are in a unique position to shape citizenship knowledge, attitudes, and behavior. In his study examining the views of social studies teachers about the current situation and future of citizenship education, Çelik (2009) states that teachers think family, friends' groups, television, print media, the internet, etc. are necessary for citizenship education. In the process of citizenship education, Ersoy (2016) states that teachers need to cooperate with family, school, and also institutions and organizations around the school. In this study, citizenship education of young people is examined within the context of schools, teachers, students, environment, and program contexts, and it has been revealed that citizenship education is affected by many positive and negative factors. Participants view the multicultural structure of the school, the formal (planned) education process, and the tendency of the Ministry of Education to keep alive principles of Atatürk as positive factors affecting citizenship education. Stressing the importance of multicultural education, Seiger (1996) says that students should acquire values and skills in a national and universal context for citizenship education. Participants believe that the tendency of the general education system to emphasize individuality and create anxiety in individuals is a negative factor. In their study examining the factors affecting citizenship awareness of the students, Keleş and Tonga (2014) state that teachers think that the exam system creates academic concerns for students, and this also affects citizenship development adversely. Similarly, Güven (2010) states that teachers experience problems in educating effective citizens and that the exams are a matter of concern; according to the teachers in Wilkins's (2003) study, the exam system affects citizenship education adversely. An exam-based education system means the majority of students' time is spent in preparation for exams. In this process, it is possible to say that students exhibiting antisocial behavior, exhibiting concerns about the future, and failing to prioritize the duties and responsibilities of active citizenship may be natural.

Another factor relevant to the effect of school and environment on citizenship education is socio-economic level. Participants in upper socio-economic level schools think that economic prosperity affects citizenship education positively; participants in lower socio-economic level schools think that economic problems affect citizenship education negatively. Uydaş and Genç (2015), in their study examining the views of secondary school students about multiculturalism in the context of global citizenship, concluded that students with low socio-economic status are less aware of citizenship rights compared to the students with moderate socio-economic status. Güven (2010) states in this study that teachers think that citizenship consciousness is affected by socio-economic level. All these findings show that the socio-economic situation, which is one of the important inputs in meeting people's basic needs, and the provision of various services have an impact on citizenship education.

Another striking point in the study is the views of participants on family roles in citizenship education. Families with high levels of literacy, cultural awareness and possess national values have a positive impact on citizenship education. Stuen (1996) states that teachers view the family as the most important factor in shaping beliefs about citizenship. Güven, Tertemiz, and Bulut (2009) found that the family was an important factor in the formation of citizenship consciousness. Similarly, Doğanay and Sarı (2009) state that the level of family income, education level and interest in politics had an impact on the citizenship perceptions of high school students; Keleş and Tonga (2014) determined that the education level of families and their attention to citizenship were considered important in terms of citizenship education. All these research findings show that the family is important in citizenship education. The family is the first institution where the individual begins to receive an education. Individuals develop surrounded by the behavior of their parents and siblings, etc., they imitate what they see and develop particular reactions. In this context, it is possible to say that the principles of child-rearing, the level of parents' culture, and their sensitivity towards humanity and the environment have a great impact on citizenship education.

Engin and Sarsar (2015) state that with the use of social media sites such as Facebook, Twitter, YouTube, etc., young people can be expected to be aware of world diplomatic, social, and political events. In this study, the participants stated that media, mass media, and the internet have an important

effect on citizenship education. According to the participants, these tools direct students' interests and create positive or negative role models for them. Yigit (2017) states that teacher candidates see tools such as social media, the internet, and so on as a source of information for citizenship education, and they believe that these tools can contribute to individuals as active citizens and can affect individuals. Both research findings show that social media and mass media have an important role in citizenship education. Today, young people participate in the political, social, economic, etc. arena through social media. More importantly, to continue to benefit from social media, it is important young people gain knowledge and skills in media literacy from an early age. In the study, participants made positive evaluations for the environment context because of the strong physical infrastructure, facilitating services, and improving interactions among individuals. However, participants claim that a tendency toward violence in the environment increases the crime rate; a destructive/discriminatory attitude and lack of communication badly affect citizens' perception and actions.

Balkaya and Ceyhan (2007) found in their study that the majority of high school students had a sense of identity at a moderate level and that students' level of sense of identity acquisition was negatively correlated with the level of criminal behavior. The period in which young people attend high school includes their adolescence, when young people search for identity and change rapidly in terms of physical, psychosocial, and cognitive aspects. During adolescence, young people seek answers to the question "Who am I?" (Morsünbül & Çok, 2013). Citizenship education has a special place and importance in terms of high school education level because during this period, young people can think critically and participate directly in active citizenship processes. In the study, participants consider the personality and development characteristics of students as important in terms of acquiring citizenship knowledge, attitudes, values, and skills. Participants think that students with good thinking ability, research/inquiry, etc., and whom are members of families with a high level of citizenship perception and consciousness have a positive citizenship education. However, the participants believe that students who are not aware of their rights and responsibilities and who cannot determine the purpose of life do not do well in citizenship education. In addition, it is perceived as normal for young people to be insensitive to citizenship education or to be interested in different things due to their age, but these are considered negative for citizenship education. Learning is an individual activity, and many external and internal stimuli influence it. When the research findings are examined, intrinsic factors such as personality traits, development period, etc. have an affects citizenship education.

A strong factor that draws attention to citizenship education is the positive and negative effects of peer groups on attitudes and actions. Participants believe that students in this age group are very much influenced by their peers. They exhibit certain desires and tendencies, such as self-acceptance. Adolescents trying to gain prestige and status in society seek the people they want to be like and go on to regulate their activities in accordance with them (Şahin & Çövener Özçelik, 2016). For this reason, it is thought that any kind of sharing between peer groups can affect individuals positively or negatively.

The role and responsibilities of teachers in citizenship education are very strong. In their research, Torney-Purta, Richardson, and Barber (2005) state that teachers' knowledge and experience about citizenship affect students' citizenship competencies. In the present study, according to the participants, teachers make positive contributions to the citizenship education of students by setting a good example, being a role model, making use of their experiences, and effective teaching qualifications. If teachers cannot teach effectively and train individuals according to their ideology, they are thought to affect their students badly. Furthermore, if teachers' citizenship knowledge and skills are insufficient, the students' learning is negatively affected. Şimşek et al. (2017) found similar results in the sense that social studies and primary school teacher candidates perceived themselves as insufficient in terms of citizenship education. The results are also similar to Yigit's (2017) study in terms of teachers' perception of self-inadequacy concerning the value and skill dimensions (active participation, thinking, etc.) of citizenship. In addition, teachers consider themselves inadequate when it comes to extracurricular activities in the context of citizenship education, which corresponds with the results of Som and Karataş (2015).

126

Curriculums help organize education in schools. Citizenship education is also provided to raise effective citizens through programs. In this study, the participants think that if the philosophy of the program matches student ideology, the student's citizenship education is affected positively, and if it does not match with student ideology, the student's citizenship education is affected negatively. Similarly, the preparation of secondary education programs by field experts, giving consideration to development of critical thinking, seeing citizenship education as a goal, supporting the affective development and socialization of students, giving citizenship gain and its concepts are seen as positive for citizenship education. Negative factors arising from program planning are: the program is frequently updated, it is not based on sustainable ideology, the priorities of program objectives are not clear, it centers on individuality, and there is a lack of time, lack of citizenship, and lack of connection with daily life. Kondu & Sakar (2013) believe it is important to increase the number of hours given to courses including citizenship education for students to understand citizenship issues. Çelik (2009) state in his research that teachers think it is important to connect with daily life, putting citizenship education into practice; Wilkins (2003) states that teachers consider the role of schools in providing good citizenship as positive, but they think that there is a high workload and that fixed programs have negative effects on citizenship education.

Suggestions

This study aimed to investigate the factors related to school, environment, teacher, student, and program that affect citizenship education according to the opinions of secondary school teachers. The results of the study show that both informal and formal education are thought to be effective in citizenship education. The participants coded the concepts of citizenship and citizenship education as an individual, state, rights, responsibility, and so on, which is similar to the literature. Participants think that citizenship education is affected positively in terms of multiculturalism, upper socio-economic level, the family's good education, a strong physical infrastructure, media, peer groups, thinking competence, learning motivation, effective teaching, positive role model teacher, and supporting thinking through the curriculum. However, it is thought that situations such as a lower socio-economic level, media, peer groups, low education level of the environment the students' development and personality traits, mass media, lack of questioning in students, lack of effective teaching, a negative point of view from the teacher, frequent updating of the program and so on have negative effects on citizenship education. In line with these results, the following recommendations are presented:

This study was designed according to the phenomenological method. In different studies, teachers' teaching practices can be observed; in order to support students' citizenship values, competencies development and solve problems in this process, action research can be designed. This research was conducted with teachers in secondary education in terms of teaching level. Different studies may focus on the perspectives of science teachers in citizenship education. It is understood that the implicit structure of the school and environment and informal learning (family, relatives, peers, etc.) on citizenship education are effective. For this reason, protocols can be organized with provincial and district directorates of the Ministry of National Education, and cooperative studies can be carried out, especially with the families, about citizenship education. It is thought that the media have positive and negative effects on citizenship education. Therefore, students' acquisition of media literacy and critical thinking skills should be supported. Apart from teachers' role modeling, teaching competencies are also important in citizenship education. In this context, support should be provided to teachers through in-service training. The place of curriculums in citizenship education is also important. It is perceived as a problem that teachers cannot adapt to frequently changed and updated teaching programs. Therefore, it is important to prepare the curriculum within a sustainable understanding.

Acknowledgements

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TÜRKÇE GENİŞLETİLMİŞ ÖZET

Vatandaşlık özelliklerinin dün ne olduğu, bugün neleri kapsadığı, yarın nelerden oluşacağı bireylerin nasıl algılandığına, nasıl yönetildiğine ve onlardan neler beklendiğiyle ilgilidir. Günümüzde hızla gelişen teknolojinin uzaktaki bireyleri yakınlaştırması, kültürler arası aktarımı kolaylaştırması, farklı topraklarda yaşayan milyonlarca insanın ortak evrensel değerler oluşturması, bu değerleri anlaması ve eylemde bulunması küresel vatandaşlık kavramını yaratmakta (OXFAM, 2015, s. 5; Penner & Sanderse, 2017; Schattle, 2008; UNESCO, 2014); şehirlerin dijitalleşmesi, teknolojinin günlük yaşamın bir parçası olması onu etkin, norma uygun ve etik kullanma bilgi ve becerisini içerdiğinden dijital vatandaşlık kavramını (Ribble, Bailey, & Ross, 2004; Schuler, 2002) oluşturmaktadır. Dolayısıyla değişimlerin vatandaşlık kavramına küresel, dijital vb. birçok yeni değer ve anlam yüklediği görülmektedir. Bu araştırmada ise, vatandaşlık kavramını ulusal vatandaşlık algısı ve eğitimi bağlamında ele alınmaktadır.

Vatandaşlık eğitimi bireyin etkili bir vatandaş olması için gereken bilgi, beceri ve değerlerin öğretimini içermektedir. Sosyal bir varlık olan bireyin aidiyetliği, toplumsallaşması için gereklidir. Osborne (1991, s. 13) okulların hem bireyin toplumsallaşmasını sağladığını hem de çeşitli derslerle vatandaşlık eğitimini verdiğini belirtmekte ve bu eğitimin de yaşam boyu devam eden dinamik bir süreç olduğunu ifade etmektedir. Remy (1978) lise ve ilköğretim okullarında vatandaşlık gelişiminin formal ve informal eğitim süreçlerinin odak noktası olduğunu ifade etmektedir. Torney-Purta, Lehmann, Oswald, ve Schulz (2001, s. 21) toplumun değer ve kazanımlarıyla yetişen bireylerin, vatandaşlık eğitiminin odağında yer aldığını belirtmektedirler. Bu gelişim sürecinde politika, eğitim, ekonomi, sosyoloji, din, sözlü edebiyat, uluslararası ilişkiler, medya (iletişim) vb. disiplinlere ait olgu ve durumların etkili olduğunu açıklamakta; vatandaşlık kazanımlarının okul, öğretmen, eğitim programı, akran grupları (okul içinde ve okul dışında), aile (ebevyn/kardeş), komşular, göç, dil, cinsiyet, televizyon gibi unsurlardan bağımsız olamayacağına değinmektedirler. Vatandaşlık eğitimi liselerde tarih, ekonomi, coğrafya ve diğer sosyal bilimler derslerinde temel bir amaç olarak kabul edilmektedir (Hoge, 2002). Som ve Karataş'a (2015) göre de vatandaşlık eğitiminin tek başına öğretim programında bir ders olmasının yanında diğer derslere entegre edilerek verilmesi önemlidir. 2018-2019 eğitim öğretim yıllarında uygulanan ortaöğretim programlarında da derslerin farklı disiplinlerle ve günlük hayatla ilişkilendirildiği bütünleşik bir anlayışın olduğu vurgulanmıştır. Ayrıca programlarda Türkiye Yeterlikler Çerçevesi (TYÇ) dikkate alınarak hazırlanan ve öğrenenlerin bilgi, beceri, tutum ve değer gelişimini destekleyen sekiz anahtar yetkinliğe yer verilmiştir. Bu yetkinliklerden biri de tüm derslerde vatandaşlık yetkinliğinin öğrencilere kazandırılmasıdır. Vatandaşlık yetkinliğinde amaç, bireyleri toplumsal ve siyasal kavramlara ilişkin bilgilerle donatmak; demokratik ve aktif katılıma dayalı medeni hayata dâhil olmalarını sağlamaktır.

Bilindiği üzere, öğretmenler hazırlanan programların sahadaki uygulayıcısıdır ve onlardan programları yaşatmaları beklenmektedir. Öğretmenler vatandaşlık eğitimini etkileyen faktörlere doğrudan maruz kaldıkları için sürecin onların gözünden incelenmesi önem arz etmektedir. Ayrıca vatandaşlık eğitiminde toplum, okul, aile, öğrenci değişkenleri birlikte ele alınmalı ve değerlendirilmelidir (Uğurlu, 2011). Bu araştırmayla da vatandaşlık eğitimini etkileyen durumların bütün olarak görülmesine ve eğitim düzenlemelerinin zenginleştirilmesine yarar sağlanacağı düşünülmektedir. Araştırmada ortaöğretim kademesindeki vatandaşlık eğitimini etkileyen faktörlerin coğrafya, felsefe, tarih öğretmenlerinin algılarına ve deneyimlerine göre değerlendirilmesi amaçlanmaktadır. Bu genel amaç doğrultusunda aşağıda yer alan alt amaçlara cevap aranmıştır:

Ortaöğretim öğretmenleri vatandaşlığı ve vatandaşlık eğitimini nasıl kavramsallaştırmaktadır?

Ortaöğretim öğretmenlerinin vatandaşlık yetkinliğini kazandırma sürecine ilişkin öğretim deneyimleri nelerdir?

Ortaöğretim öğretmenleri öğrencilerinde vatandaşlık gelişimini etkileyen okul, çevre, öğrenci, öğretmen, program kaynaklı olumlu ve olumsuz faktörleri ve nedenlerini nasıl tanımlamakta ve açıklamaktadırlar?

Araştırma nitel bir araştırma olup, olgu bilime göre desenlenmiştir. Olgu bilim araştırmaları birkaç kişinin bir fenomen veya kavramla ilgili yaşanmış ortak anlamını tanımlar (Creswell, 2016, s. 77). Bu araştırma sürecinde deneyimin bilince dönüşme sürecine odaklanılarak deneyimin anlamının ve doğasının derinlemesine ortaya konulması amaçlanır (Merriam, 2013a, s. 24; Patton, 2014, s. 104). Bu araştırmada da ortaöğretim öğretmenlerinin vatandaşlık eğitimine ilişkin algılarının ve deneyimlerinin derinlemesine incelenmesi üzerinde durulmuştur. Katılımcıların seçiminde maksimum çeşitlilik dikkate alınmış ve katılımcılar 2017-2018 eğitim öğretim yılı bahar döneminde Gaziantep ilinin Şahinbey ilçesinde 3 farklı ortaöğretim kurumunda görev yapan 8 öğretmenden (coğrafya, tarih, felsefe) oluşmuştur. Araştırmadan önce Şahinbey İlçe Milli Eğitim Müdürlüğü'nden gerekli izinler alınmıştır. Ayrıca araştırmaya katılan öğretmenlerin gönüllü olmaları esas kılınmıştır. Araştırmada veriler araştırmacıların geliştirdiği yarı yapılandırılmış görüşme formu yoluyla toplanmıştır. Veriler içerik analizi yoluyla analiz edilmiştir ve nedensel ağlarla gösterilmiştir.

Araştırmadan ortaya çıkan sonuçlar katılımcı öğretmenlerin vatandaşlık ve vatandaşlık eğitimi kavramlarını birey, devlet, hak, sorumluluk vb. şekilde literatürle benzer kodladıkları görülmektedir. Araştırmada katılımcıların tamamının öğretim süreçlerinde vatandaşlık bilgi ve becerisine yönelik çalışmalar yaptıkları, bu süreçte de öğretim programı içeriğinin dikkate alındığı, disiplinler arası öğretim yapıldığı ve informal (plansız) eğitim yoluyla vatandaşlık eğitimini gerçekleştirildiği görülmektedir. Vatandaşlık eğitimleri okul, öğretmen, öğrenci, çevre ve program bağlamları kapsamında incelenmiş ve vatandaşlık eğitimi üzerinde formal eğitim kadar informal eğitimin de etkili olduğunun düşünüldüğünü ortaya çıkmıştır. Katılımcılara göre, vatandaşlık eğitimi çok kültürlülük, üst sosyoekonomik düzey, ailenin iyi eğitimi, güçlü fiziki alt yapı, medya, akran grupları, düşünme yeterliliği, öğrenme güdüsü, etkili öğretim, olumlu rol model öğretmen, programın düşünmeyi desteklemesi vb. açılardan olumlu yönde etkilenmektedir. Ancak alt sosyoekonomik düzey, medya, akran grupları, çevrenin düşük eğitim seviyesi, öğrencilerin gelişim ve kişilik özellikleri, kitle iletişim araçları, öğrencilerin sorgulama yetersizliği, etkili öğretim yetersizliği, öğretmenin olumsuz bakış açısı, programın sık güncellenmesi vb. durumların vatandaşlık eğitimi üzerinde olumsuz etkilerinin olduğu düşünülmektedir.

The prediction of personality, culture and coping strategies on university students' psychological help seeking attitudes

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ABSTRACT   This study has attempted to investigate the predictability of university students' personality traits, cultural values, stress coping strategies, negative automatic thoughts and gender on their professional/formal psychological help seeking attitudes. This research has been carried on with the participation of a total of 1284 university students. Predictive correlational method was used. To collect data, valid and reliable measurements were conducted. The hierarchical multiple regression analysis has been used to evaluate the data. As predictors of the psychological help seeking attitude, conscientious and agreeable students have more positive attitudes, but negative-valent and open ones have more negative attitudes. Students who use seeking social support and avoidance stress coping strategies have more positive attitudes, but who use keep-to-self have more negative attitudes. Collectivist and female participants' help seeking attitudes are more positive. With these variables, 14% of the attitude of seeking psychological help is explained. The findings of the study were associated to Theory of Planned Behavior and discussed in the light of literature.

Keywords: *Big five personality, Coping strategies, Help seeking attitudes, Individualistic-collectivistic*

Kişilik, kültür ve başa çıkma stratejilerinin üniversite öğrencilerinin psikolojik yardım alma tutumunu yordayıcılığı

ÖZ   Bu çalışmanın amacı, üniversite öğrencilerinin psikolojik yardım alam tutumları ile kişilik özellikleri, kültürel kimlikleri, başa çıkma stratejileri ve olumsuz otomatik düşünceleri arasındaki ilişkiyi incelemektir. Bu amaç doğrultusunda 1284 üniversite öğrencisinin katılımı ile çalışma nicel desenlerden ilişkisel tarama yöntemi ile yürütülmüştür. Verileri toplamak için geçerlilik-güvenirlik çalışmaları yapılmış ölçme araçları kullanılmış ve verilerin analizinde çoklu doğrusal regresyon analizi yapılmıştır. Bulgulara bakıldığında sorumlu ve uyumlu kişilikteki katılımcıların psikolojik yardım alma konusunda daha olumlu tutuma sahip olduğu, negatif değerli ve yeniliğe açık kişilerin ise olumsuz tutuma sahip oldukları bulunmuştur. Sosyal destek ve kaçınmacı başa çıkmayı kullananların olumlu tutuma sahip oldukları, gizleme davranışı sergileyenlerin olumsuz yardım alam tutumuna sahip oldukları bulunmuştur. Toplulukçu kültürün değerlerini benimseyenler ile kadınların psikolojik yardım alma konusunda olumlu tutum benimsedikleri bulunmuştur. Bu değişkenler ile psikolojik yardım alma tutumunun % 14'ü açıklanmaktadır. Bulgular literatür ışığında tartışılmıştır.

Anahtar Sözcükler: *Başa çıkma stratejileri, Beş faktör kişilik, Bireycilik-toplulukçuluk, Psikolojik yardım alma tutumu*

134

INTRODUCTION

Psychological problems affect people's lives as well as physical problems. Complaints about psychological problems, which may sometimes be the cause of physiological disorders, are increasing day by day. According to World Health Organization (''Infographic-Depression in Turkey,'', 2017) in European Union (EU) countries, 27% of the adult population had at least one mental problem last year. In Turkey, 37 % of people applying to primary health care centers suffer from mood disorder, 29 % ones from anxiety disorders, 8.6 % ones from somatoform disorders and 7.7 % ones from possible alcohol abuse (Keskin, Ünlüoğlu, Bilge, & Yenilmez, 2013) and 4.4. % ones suffer from depression (''Infographic-Depression in Turkey,'', 2017). Due to widespread psychological problems, the government of Turkey has developed several action plans: ''Strengthening mental health services with focus on community level, strengthening integration of mental health services / implementation of mhGAP and strengthening mental health services response during emergencies'' (''Health Topics,'', 2019). Given the results of studies, it is reported that there is a considerable number of individuals experiencing mental/psychological disorders and that some portion of them consists of young adults. Psychological disturbances constitute almost half of the illness burden of young adults (World Health Organization [WHO], 2008), and many psychological illnesses that are life-threatening begin before the age of 24 (Kessler et al., 2005).

The young adulthood is a significant period in which young adults should have various developmental tasks, such as having an identity, establishing romantic relationship, making professional choices and gaining independence. Moreover, the period of young adulthood coincides with the years of university education. The university years are considered to be a stressful period in which students experience emotional, academic, economic, depression, domestic relationships, friend relationships, adaptation, academic and romantic issues (Erkan, Cihangir-Çankaya, Terzi, & Özbay, 2011; Özgen, 2016; Topkaya & Meydan, 2013), low self-respect, social anxiety and dissatisfaction with life (Ceyhan, 2009).When such issues are coupled with the feelings of loneliness, homesickness, worry, uncertainty (Dennis, Phinney, & Chuateco, 2005), selecting courses, exam anxiety, academic competition and assessment, students' lives become more stressful (Perrine & Lisle, 1995). Being deprived of the parental protection of the previous years (Ültanır, 1998), university students may be in difficulty to deal with multiple issues at once. Especially freshman students who do not have effective coping strategies have difficulty in adapting to university life (Rahat & İlhan, 2016), so they need help. In this respect, it is vitally important that universities have psychological counseling centers for students to have healthy adaptation process (Güneri, Aydın, & Skovholt, 2003).

As psychological counseling services have gained importance in the recent years in Turkey, many universities are encouraged to establish psychological counseling centers within their campuses. Almost all universities have a counseling service unless some of them do not have sufficient equipment and personnel. Centers generally employ psychologists, doctors, psychotherapists, psychological counselors and social workers (Mojaverian, Hashimoto, & Kim, 2013). However, counseling centers at universities are not utilized efficiently. Majority of the studies investigated university students do not consider seeking professional psychological help from counseling services (Koydemir-Özden, Diker-Coşkun, Yumurtacı, Erel, & Şahin, 2009; Topkaya & Meydan, 2013), or are unwilling to apply to there (Wade, Post, Cornish, Vogel, & Tucker, 2011). These studies point out the necessity to identify factors that prevent students from applying to psychological counseling services and to come up with solutions regarding this matter.

Studies researching about psychological help seeking are mostly based on Theory of Planned Behavior (TPB). The theory is very effective in determining health-related behaviors. According to TPB,

135

subjective norm, perceived behavioral control and attitude together affect intention and indirectly affect behavior. (Ajzen, 1985). Thus, attitude is an important concept of TPB (Figure 1). Even, many studies show that the psychological help seeking attitude, which represents an individual's impression on seeking psychological help in a satisfactory/dissatisfactory manner (Fischer & Farina, 1995), is an important determinant in identifying individuals' seeking psychological help behavior (Cepeda-Benito & Short, 1998; Cramer, 1999; Kelly & Achter, 1995; Sareen et al., 2007; Vogel, Wester, Wei, & Boysen, 2005). For this reason, identifying factors influencing the help seeking attitude may also indirectly help to reveal information regarding the factors that influence the help seeking behavior. This study aims to determine certain factors (personality trait, cultural values, stress coping strategies, negative automatic thoughts and gender) that can be related to psychological help seeking attitude.
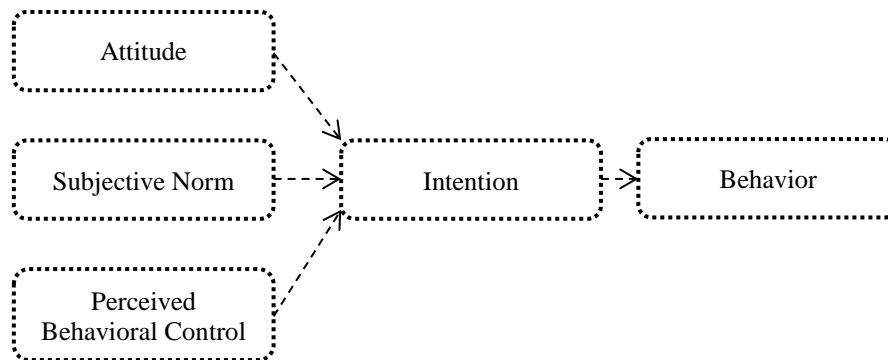
Figure 1. Theory of Planned Behavior (Ajzen, 1991, p.182)

Many factors may play in determining individuals' professional psychological help seeking attitudes. Among such factors, personality traits are likely to be an important determinant. This is because an individual's peculiar and habitual emotions, thoughts, behaviors and attitudes are the manifestations of their personality traits (McCrae & Costa, 2008; Barenbaum & Winter, 1999). According to the literature, the studies conducted on personality and psychological help seeking mostly focus on a five-factor personality model. In this respect, it is found that the individuals who possess openness (Atik & Yalçın, 2011; Kakhnovets, 2011; Özdemir, 2012), agreeableness (Atik & Yalçın, 2011; Kakhnovets, 2011) and conscientiousness (Kakhnovets, 2011; Özdemir; 2012) demonstrate a more positive help seeking attitudes. The help seeking attitudes of the extrovert and neurotic individuals, however, are found to be negative in some studies (Özdemir, 2012; Şahin-Akaydın, 2002), while they are found to be positive in others (Atik & Yalçın, 2011; Goodwin, 2008; Kakhnovets, 2011).

In addition to the personality traits, the cultural values are also likely to be an important factor in determining people's attitude and behaviors about seeking psychological help. This is because; culture plays a significant role in identifying the issue, deciding on whether to seek help and evaluating the coping options (Cauce et al., 2002). The studies conducted on culture mostly focus on two main domains, namely individualism and collectivism. While a collectivistic culture prioritizes solidarity and social harmony within a group (Markus & Kitayama, 1991), an individualistic culture attaches importance to independence, autonomy and individual requirements (Kwan, Bond, & Singelis, 1997). Kim (2007) claims that loyalty to cultural values in collectivist societies may prevent individuals from seeking professional psychological help. According to a meta-analysis study that was conducted based on 13 studies and on regional and national samples, Asian Americans use the psychological help services 30 to 50% less than European Americans do (Choi & Miller, 2014). However, there are conflicting views as to whether the Turkish society is a collectivist or individualist one. In the past, Turkish society was generally described as a collectivist society (İmamoğlu, 1987). However, the new generation appears to display some of the personality traits that are associated with the western individualist culture such as self-confidence, competition and independence (Koydemir, Erel, Yumurtacı, & Şahin, 2010). As a matter of fact, cultural characteristics of people living in cities and rural areas vary. As we move towards cities, individualism features become more dominant. Therefore, it becomes increasingly important to identify whether individualistic and collectivistic cultural characteristics play role in shaping up the psychological attitudes of the individuals within the Turkish context.

136

Besides the personality and cultural values of the individuals, types of coping strategies are also likely to determine their psychological help seeking attitudes. In many cultures, individuals seek social support from their families or have recourse to religious practices prior to seeking psychological help (Dejman, Ekblad, Forouzan, Baradaran-Eftekhari, & Malekafzali, 2008). For example, who prefer avoidance over dealing with their problems (Sheu & Sedlacek, 2004) and those who feel themselves adequate enough to cope with their own problems have more negative psychological help seeking attitude (Tracey et al., 1984). On the other hand, there are findings about those who opt for seeking social support and making an effort to deal with the problem have a more positive attitude (Türküm, 1999). Such different findings suggest that this matter should be clarified. Addressing different coping strategies altogether and identifying the role that such coping strategies play in seeking psychological help will make a great contribution to the literature.

It is also possible that having negative automatic thoughts has significant role in the attitudes of individuals in seeking psychological help. Those who have sudden and uncontrolled automatic thoughts (Beck, 2005) are known to have negative self-esteem, negative expectations and feelings of helplessness (Abramson, Metalsky, & Alloy, 1989). Moreover, they suppose that negative experiences always come from themselves, what is experienced will always result in a negative way and that it is not possible to get rid of them (Rose & Abramson, 1992). As a matter of fact, this nonfunctional reasoning method leads to trying passively with problems (Gabrys, 2011). Therefore, it is possible that individuals who have these feelings and thoughts need psychological help but negative automatic thoughts refrain from seeking psychological help.

Lastly, gender is another important factor on help seeking attitudes. There are a lot of studies reporting that male university students have more negative help seeking attitudes than their female counterparts (Talebi, Matheson, & Anisman, 2016), and female ones apply more counseling services than males (Morgan, Ness, & Robinson, 2003). Gender role conflicts and social norms seem an obstacle for seeking psychological help (Yousaf, Popat, & Hunter, 2015). Especially masculine gender role orientation and men's restrictive affectivity cause men to hesitate to seek help (Özmete & Yanardağ, 2016). However, there are some studies reporting no significant gender differences in psychological help seeking attitudes (Masuda, Suzumura, Beauchamp, Howells, & Clay, 2005). Thus, such mixed results of the gender differences in help seeking attitudes can be addressed by new studies in different cultures.

For the purpose of this research, answers were searched to the following questions:

Do personality traits (extroversion, conscientiousness, agreeableness, openness, neuroticism and negative valence) predict significantly psychological help seeking attitudes?

Do collectivistic and individualistic cultural characteristics significantly predict psychological help seeking attitudes?

Do coping strategies (planful problem solving, seeking social support, accepting responsibility, avoidance, keep-to-self, fatalism and supernatural protection) significantly predict psychological help seeking attitudes?

Do negative automatic thoughts significantly predict psychological help seeking attitudes?

Does gender significantly predict psychological help seeking attitudes?

The hypothesis of the present study and the adapted form of Theory of Planned Behavior are presented in Figure 2 as a whole.
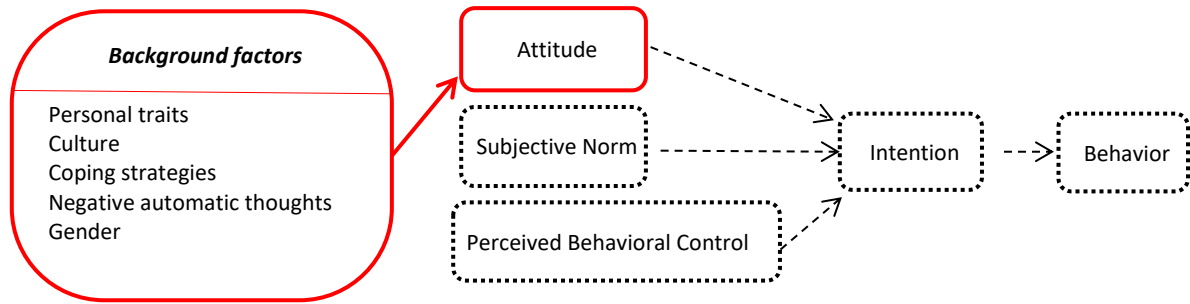
Figure 2. Hypotheses of the study adapted from Theory of Planned Behavior (Ajzen, 1991, p.182)

Importance of the Study

To mention the importance of research, in college years which include adulthood term, some of the students have difficulties in solving their problems and even fail. Unresolved problems can turn into mental health problems that can damage students' social and academic life. Using adequate and appropriate methods to solve problems plays an improving role for healthy self, in the resolution of adjustment problems, in decreasing the frequency of behavioral problems and depressive symptoms (Steiner, Erickson, Hernandez, & Pavelski, 2002). The psychological problems of university students have increased 5 times compared to 10 years ago (''İngiltere'de üniversite öğrencilerinin ruh sağlığı,'' 2017). The percentage of those who think suicide in university students is 45% (Eskin, 2012) and 29% (Eskin, 2017); it is observed that the rate of suicidal attempt varies between 11% (Eskin, 2012) and 7% (Eskin, 2017). However, majority of the studies investigated university students do not consider seeking professional psychological help from counseling services (Topkaya & Meydan, 2013), or are unwilling to apply to there (Wade et al. 2011).

Consequently, it is important to determine factors making students hesitate in seeking professional psychological help. There are no studies presenting the relationship between cultural characteristics on help seeking attitudes of students in Turkey. In addition, it seems that there is a very limited number of studies investigating relationship among personality traits, coping strategies, automatic thoughts and psychological help seeking attitudes. More importantly, it is priceless to investigate the relationship among these variables comprehensively and holistically. Results of the current study are expected to provide new information and extend new horizons. In this way, counselors may plan outreach programs, design services and get educated to be more helpful for counselees.

METHODOLOGY

This study was designed according to prediction model of correlational design which is a quantitative method. The purpose of a prediction research design is to identify variables that will predict an outcome. In this form of research, the researcher identifies one or more predictor variable and a criterion (outcome) variable (Creswell, 2012). In this study, personality, coping strategy, culture, automatic thought and gender were identified as predictor; and professional psychological help seeking attitude was identified as an outcome (criterion).

Participants

The study group enrolled in the 2015-2016 fall semester full-time degree program at a university in Turkey. The study consisted of 1284 students (739 female, 493 male) and 2 unidentified students and 254 of them had previously applied a psychological counseling center. The study group has been

selected out of a total of 21073 students currently studying in 14 different departments of the university through convenience sampling.

In this study, two types of sampling methods were used. Available sampling for participants who did not receive psychological help, and criterion sampling of purposeful sampling strategies was used for those receiving psychological help before.

Measures

Detailed information about personal information form and Attitudes towards Seeking Professional Psychological Help Scale, Basic Personality Traits Inventory, IND-COL scale, Ways of Coping Questionary and Automatic Thoughts scale were used to collect data in this study and each is presented below.

Personal information form

In order to determine some demographic characteristics of the participants, a personal information form prepared by the researcher was used. The personal information form includes questions about the participants' gender, class level, the region where they spend most of their lives, the faculty in which they have studied, whether they have received psychological help before and how much they have benefited from it.

Attitudes Towards Seeking Professional Psychological Help Scale - Short form

Psychological help seeking attitudes was measured using Turkish Form of the Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPH-S; Fischer & Farina, 1995). The adaptation of the scale to the Turkish culture was conducted on adults (Topkaya, 2011). And then the validity and reliability of the study was re-examined with university students (Gürsoy, 2014). The scale consists of 10 items, 5 of which have positive and 5 of which have negative content. Participants were asked to rate each item on a 4-Likert type scale (1 = strongly disagree and 4 = strongly agree). The negatively stated items were then reversed scored since when the points are summed up, a higher score indicates a more positive attitude toward seeking mental health services. Eventually the internal consistency was .84 for original form, .77 for translated form and .77 for current study.

Basic Personality Traits Inventory-BPT

Basic seven personality traits of Openness, Conscientiousness, Neuroticism, Extraversion, Agreeableness and Negative Values were measured using Basic Personality Traits Inventory-BPT (Gençöz & Öncül, 2012). The measurement tool was developed in university students. BPT consists of 45 items, with each personality domain scale being made up of different items. Participants are asked to rate each item on a 5-point Likert type scale where 1 is very inaccurate and 5 is very accurate, to the degree to which they believe statements describe them. Scores for the BPT were obtained for each personality dimension, with higher scores representing a stronger presence of that particular personality trait. Internal consistency are between .71 and .89 for original form and estimates of the internal consistency were .84, .83, .84, .77, .75 and .64 respectively extraversion, conscientiousness, agreeableness, neuroticism, openness and negative values for current study''.

Individualism-Collectivism (IND-COL) Scale

Cultural values were measured by using Turkish form of the IND-COL scale (Singelis, Triandis, Bhawuk, & Gelfand, 1995). The first adaptation of the scale to the Turkish culture was conducted on adults (Wasti & Erdil, 2007). And then the validity and reliability of the study was re-examined with university students (Dalğar, 2012). IND-COL scale has been shown four-factor structure

139

(horizontal/vertical and individualism/collectivism), but it can be used as a two-factor scale (ind/col). IND-COL consists of 37 items rated on a five-point scale ranging from 1 (extremely disagree) to 5 (extremely agree), with higher scores indicating a greater perception of having individualism or collectivism cultural values. IND-COL scale has an acceptable level of internal consistency with a coefficient alpha of ranging from .71 to .73; whereas the current sample's internal consistency was .79 for individualism and .72 for collectivism factor''.

Ways of Coping Questionnaire

Stress coping styles were measured by using Ways of Coping Questionary (Folkman & Lazarus, 1980). The adaptation of the scale to the Turkish culture was conducted on university students (Şenol-Durak, Durak, & Elagöz, 2011). Coping Questionary consists of 31 items rated on a five-point scale ranging from 0 (never) to 3 (always). Coping Questionary has been shown seven-factor structure: Panful Problem Solving, Keep to Self, Seeking Social Support, Escape-Avoidance, Accepting Responsibility, Refuge in Fate, Refuge in Supernatural Forces. Respondent is asked to rate how often they use these strategies when they are in a stressful event and higher scores represent a strong use of that coping styles. Estimates of the internal consistency range from .65 to .80 For current study internal consistency were .80, .82, 66, .43, .75, .81 and 70; respectively planful problem solving, keep to self, seeking social support, escape-avoidance, accepting responsibility, refuge in fate, refuge in supernatural forces.

Automatic Thoughts Questionnaire

Negative automatic thoughts were measured by using Automatic Thoughts Scale (Hollon & Kendall, 1980). The adaptation of the scale to the Turkish culture was conducted on university students (Şahin & Şahin, 1992). The scale consists of 30 items rated on a five-point scale ranging from 1 (never) to 5 (always). It has five –factor structure and can be used with total point. The scale has an acceptable level of internal consistency with a coefficient alpha of ranging from .89 to .91. Current sample's internal consistency was .96 for this scale and that means it has an acceptable level of internal consistency. High score means individuals have more negative automatic thought.

Data Collection Procedures and Analysis

Firstly, variables were identified to be employed in the study, and then developers of questionnaires were asked for consent to use related questionnaires. A booklet was created out of the informed consent forms and measurement instruments for the application. With the aim of checking the order effect of the scale, four different booklets –each having the measurement instruments listed in a different order- were distributed to the participants in a random manner. This is because, listing one of the measurement instruments consistently at the end of the list will compromise its reliability (Howitt, 2011) and the inclusion of measurement instruments in studies with different listings will change the study results up to 45% (Huang & Cornell, 2015). To control Type I error, participants were selected from both students seeking previously psychological help and ones not seeking. Also, significance level of the regression statistical procedures was identified as .05/4=.01. Before actual application, pre-test was carried out to check the duration of application and the clarity of the measurement. Later the booklets were carried out 1415 voluntary students at classroom. Voluntary students were given pencils as a gift to fill up the forms earnestly.

Prior to starting analysis, the issue of dealing with the lost data was addressed to make data compatible with the analysis. It is said that there are three ways to deal with the lost data: (1) addition of new observations to preexisting data, (2) removing the observations with lost data out of the data set and (3) assigning approximate values instead of the lost data (Çüm & Gelbal, 2015). It is suggested that the lost data should be totally randomly distributed to be removed, otherwise removal thus made will be hugely prejudiced and partial (Little & Rubin, 2002). If the ratio of the lost data is below 1%, the loss is deemed to be immaterial (Pyle, 1999). In the present study it was found that the lost did not have a normal distribution and its ratio is 0.3%. When the ratio of lost data is minimal, it is recommended that simple

140

assignment based methods are used such as assigning series means, near point median assignment, linear valuation etc. (Osborne, 2013; Schafer, 1999). In line with the aforementioned, approximate values have been assigned for the lost data by using the series mean assignment method.

Prior to the analysis of the data, the preliminary conditions of regression were examined. In this respect, care was taken to ensure that the kurtosis-skewness values were between -1.5 and +1.5 (Tabachnick & Fidell, 2013), and that the Tolerance values were less than .10 and VIF value was more than 10 to eliminate the issue of multiple linear relation between the variables (Field, 2005) and that the relationship between the variables was less than .80 (Garson, 2012). While there are various different views as to the sufficient sample size for a regression analysis, this study employed the most strict view, which stipulates that the ratio of number of participants/predictor variables should be 40/1 (Tabachnick & Fidell, 2013). In addition to the aforementioned criteria, Mahalanobis distance values were reviewed for normal distribution and it was ensured that the Durbin-Watson value was between 1 and 3 to verify that there was no autocorrelation issue (Akbulut, 2010). The data obtained was analyzed by using the SPSS software package and the significance level of the statistical procedures was identified as .05 for correlation, .01 for regression analysis. In the study, hierarchical regression analysis was chosen because some variables consist of sub-dimensions and it is necessary to include all sub-dimensions of one variable together.

FINDINGS

Before regression analysis, with the aim of determining significant relationships between variables Pearson Correlation analysis was performed. It was established that dependent variable had a statistically significant relationship with nine independent variables of 16 ones of the study. That is why; the regression analysis should be conducted with the independent variables that had significant relationships with the dependent variable of the study. In addition to the aforementioned variables, the variable of gender was coded as dummy variable (male=1) and added to the analyses as a predictor. Hierarchical multiple regression analysis was carried out in four stages according to the order of importance of the variables. Firstly, the personality traits were added to the model, then the cultural traits, the third coping strategies and finally the gender.

Firstly, some of the premises were reviewed to determine the degree of reliability of the analysis results. For the multiple linear relation problem, variance inflation factor (VIF) varied between 1.09 and 1.51, while the tolerance values between .66 and .91. In order to verify the normality condition, the Normal P-P Plot and Scatterplot charts were examined and it was found that the normality condition was met. Lastly, the Durbin-Watson value was reviewed to determine the absence of autocorrelation and no autocorrelation was found between the values (2.04). Once aforementioned premises were met, it was concluded that the results of the regression analysis presented in the tables could be taken into consideration. Results of hierarchical multiple regression analysis for variables predicting university students' psychological help seeking attitudes are presented in the Table 1.

As seen in the Table 1, the Model 1 (containing the dimensions of the personality traits variable) was found to be statistically significant (p<.001). When the standardized coefficients of the predictor variables (β) are taken into consideration, it was found that personality traits of negative valence (β=-.08), agreeability (β=.11), openness (β=-.17) and conscientiousness (β=.07) were significant predictors of the university students' attitudes towards seeking psychological help, whereas the neuroticism (β=-.02) was not a significant predictor of the latter (F(5-1281)=14.160, (p<.001). When the explanatory strength of the model is taken into consideration, it is seen that it accounts for 5% of the attitude towards seeking psychological help along with the personality traits dimensions.

Table 1.
Summary of hierarchical regression analysis for variables predicting help seeking attitudes of university students

Model	Dependent variables	B	Standard error	Beta (β)	t	p	R	R2	ΔR2	F
1	Constant	27.447	1.423		19.289	.001				
	Neuroticism	-.033	.036	-.027	-.928	.354				
	Negative valence	-.159	.060	-.082	-2.656	.008	.23	.05	.05	14.160
	Agreeableness	.149	.040	.117	3.707	.001				
	Openness	-.217	.037	-.176	-5.878	.001				
	Conscientiousness	.063	.026	.072	2.413	.016				
2	Constant	25.804	1.609		16.042	.001				
	Neuroticism	-.033	.036	-.027	-.924	.356				
	Negative valence	-.153	.060	-.079	-2.557	.011				
	Agreeableness	.120	.042	.094	2.841	.005	.24	.06	.05	12.625
	Openness	-.205	.037	-.167	-5.515	.001				
	Conscientiousness	.053	.026	.061	2.029	.043				
	Collectivism	.035	.016	.065	2.178	.030				
3	Constant	26.701	1.712		15.599	.001				
	Neuroticism	-.031	.036	-.025	-.859	.391				
	Negative valence	-.124	.059	-.064	-2.094	.036				
	Agreeableness	.091	.042	.071	2.167	.030				
	Openness	-.185	.037	-.151	-5.039	.001	.30	.09	.09	14.295
	Conscientiousness	.055	.026	.064	2.145	.032				
	Collectivism	.013	.017	.024	.772	.440				
	Keep to self	-.210	.043	-.142	-4.834	.001				
	Seek social supp.	.133	.054	.077	2.466	.014				
	Avoidance	.095	.044	.060	2.141	.032				
4	Constant	27.065	1.663		16.278	.001				
	Neuroticism	-.071	.035	-.058	-2.045	.041				
	Negative valence	.027	.060	.014	.442	.658				
	Agreeableness	.055	.041	.043	1.357	.175				
	Openness	-.083	.037	-.068	-2.222	.026				
	Conscientiousness	.027	.025	.031	1.058	.290	.38	.14	.14	21.443
	Collectivism	.017	.016	.032	1.076	.282				
	Keep to self	-.179	.042	-.121	-4.221	.001				
	Seek social supp.	.132	.052	.077	2.524	.012				
	Avoidance	.032	.044	.020	.730	.465				
	Gender (Male)	-2.778	.315	-.263	-8.831	.001				

p≤.01

When the collectivism variable was added to the Model 2, the structure once again retained its statistical significance (p<.001). When the standardized coefficient of the collectivism variable (β=.06) was examined it was found to be a statistically significant predictor of the university students' attitudes towards seeking psychological help (F(6-1281)=12.625, p<.001). The personality traits and collectivism account for approximately 6% of the psychological help seeking attitude.

When the three dimensions of the coping strategies were added to the Model 3, the statistical significance of the structure seemed to remain the same (p<.001). Following the examination of the standardized coefficients of the coping strategies, keep-to-self (β=-.14), social support (β=.07) and avoidance (β=.06) were found to be statistically significant predictors of the university students' attitudes towards seeking psychological help (F(6-1281)=14.295, p<.001). However, the collectivism variable that was found to be a significant predictor in the previous model does not appear to be a significant predictor in this particular model (p>.05). When the explanatory strength of the model is

142

taken into consideration, it appaers that the dimensions of personality traits, collectivism and coping strategies account for 9% of the university students' attitudes towards seeking psychological help.

Lastly, the variable of gender was added to the Model 4, as a result of which the model appeared to remain statistically significant (p<.001). Following the examination of the standardized coefficient of the gender variable (β=-.26) it was found to be a statistically significant predictor of the university students' attitudes towards seeking psychological help (F(10-1281)=21.443, p<.001). However, the personality traits dimensions of negative valence, agreeability and consciousness and avoidance coping strategies -which were found to be statistically significant predictors in the previous models ceased to be statistically significant predictors (p>.05). On the other hand, the dimension of neuroticism (β=-.05) that was found to be an insignificant predictor in the first model was found to be a significant one in this model (p<.001). When the explanatory strength of the model is taken into consideration, it accounts for 14 % of the university students' attitudes towards seeking psychological help.

DISCUSSION AND CONCLUSION

The aim of this study is to determine the important factors on university students' psychological help seeking attitudes. In this context, according to the results of the study, personality traits, coping strategies, cultural traits and genders were found to be important variables.

When the findings of the present study are viewed, agreeableness personality trait is found to be an important predictor of the university students' professional psychological help seeking attitudes. This finding seems to be in parallel with the findings of various other studies. It is found that the persons who have previously applied a therapy (Hopwood et al., 2008) and have positive psychological help seeking attitudes (Cardella-Filaski, 2010) demonstrate high degrees of agreeable personality traits. Moreover, it is suggested that persons demonstrating suspicious, aggressive and selfish qualities (indicators of disagreeable personality) reject to receive help (Bridges, Wormley, Leavitt, & McCord, 2016). It is argued that the individuals with agreeable personality traits are reliable, forgiver, trustworthy (McCrae & Costa, 2008), well intentioned and trustful (Kakhnovets, 2011). In this respect, it can be argued that the individuals showing agreeable personality traits will not avoid from seeking help from others to solve their own problems since they believe that others can help them whenever they are in need and thus, they have a positive attitude towards seeking psychological help.

Another personality trait that serves as a predictor of the students' attitudes towards seeking psychological help is conscientiousness. Conscientiousness has been found to be a significant predictor in some other studies in the literature. According to a study, the persons who sought help for anorexia nervosa treatment were found to possess a significant degree of conscientiousness (Bridges et al., 2016). In a similar vein, of the individuals who were diagnosed with severe depression, those with high degree of conscientiousness were found to have a more positive attitude towards seeking psychological help (Schomerus et al., 2013). Moreover, it is suggested that the personality trait of conscientiousness is a significant positive predictor of the university students' attitudes towards seeking psychological help even if they have not been previously diagnosed with any psychological disorder (Cardella-Filaski, 2010). It is reported that the individuals with conscientious personality traits show the qualities of being organized, diligent, determined and highly self-conscious (Engler, 2013). In this respect, it can be argued that the conscientious individuals will be aware of the problems they encounter and make a plan to deal with those problems and put up a struggle to operationalize their plan and seek any help to achieve their goal. When the personality traits of the conscientious people and the findings of the present study are taken into account, it can be argued that such people view psychological help services as a source of help and thus they have a positive attitude towards seeking help from counseling services.

143

It is found that the individuals with high degree of openness personality trait have a significant negative attitude towards seeking help. This finding differs from the findings of previous studies. A study conducted on university students shows that those with a higher degree of openness have a more positive attitude towards seeking psychological help (Atik & Yalçın, 2011; Hinrichs, 2012). Another study presenting similar results explains this situation through the fact that the individuals that are open to new experiences are aware of the fact that they need help, and that they are more resistant against social stigma, and that they have a higher sense of interpersonal openness and a higher degree of trust in the therapy (Drancoli, 2007). People that are open to new experiences are described as curious, interested and enterprising (Cervone & Pervin, 2014). In this respect, the individuals with a high degree of openness are expected to have positive attitudes towards seeking psychological help. However, the fact that the conclusion of this study differs from others leads one to think that people with a higher degree of openness no longer view psychological help services as an innovation or that they do not think help services will be useful for them. However, more in-depth studies -such as interviewing with people with a higher degree of openness- can be conducted to obtain more detailed results and to perform in-depth analysis.

It has been found that individuals with higher degree negative valence have more negative attitudes about psychological help seeking. Unfortunately, there are no studies related this personality trait. Nonetheless, there are studies conducted based on the factors associated with the negative valence personality trait. Individuals with negative valence personality traits have quite negative self-worth, self-esteem and they roll with the punch and make no effort to alter their situation and avoid seeking social support (Gençöz & Öncül, 2012). In another study, it is suggested that the individuals with low self-worth and self-esteem have a more negative attitude about psychological help seeking (Dorazio, 2013). In this respect, it can be argued that the individuals with negative valence may require support on account of their low self-esteem. However, they can avoid taking initiative to alter their situation. That is because; they have the anxiety of social stigma, in particular, due to their lack of self-esteem (Ho et al., 2015). In addition, due to the aforementioned reasons, one may conclude that they would avoid seeking psychological help and thus have negative psychological help seeking attitudes.

Lastly, the personality trait of neuroticism does not appear to be a significant predictor of the participants' attitudes towards seeking psychological help. This finding is supported by various studies in the literature. (Atik & Yalçın, 2011; Sauder, 2014). For example, neuroticism levels do not differ between those who have previously received psychological help and those who have not (Bridges et al., 2016) and that it is not an important factor in determining whether or not to apply to help services (Have, Oldehinkel, Vollebergh, & Ormel, 2005). The personality traits of neurotic persons are mostly reported as anxious, insecure, sensitive to stress related disorders and incapable of coping with such disorders (Miserandino, 2014). In this respect, it can be suggested that neurotic individuals may need psychological help. As such, one would expect neuroticism to be a significant predictor of the attitude towards seeking help. However, when gender was added to model, neuroticism became a significant predictor of help seeking attitudes. This means the relationship between neuroticism and help seeking attitudes changes in terms of participants' gender. More detailed results regarding this matter may be presented through the studies to be conducted using different analyses or methods and qualitative findings.

In this study, students' -who adopt collectivistic cultural characteristic-, psychological help seeking attitudes are more positive. While this result shows similarities to some studies, it differs from most of the studies in the literature. In a study conducted with the overseas university students from various cultural backgrounds, it has been found that the students related to Asian culture -which is deemed to be a largely collectivist culture- have a more positive attitude towards seeking psychological help (Yakunina & Weigold, 2011). The characteristics of a collectivist culture are listed as a desire to be identified with the opinion, requirements and purposes of their group; adjusting one's behaviors in line with the social norms and tasks; willing to espouse common beliefs and values and be in collaboration with the group members (Triandis, 1990). Values in a collectivist culture mostly consist of security, good social relations and group integrity (Eshun & Gurung, 2009). Moreover, collectivist individuals

144

also value the attitudes that reflect socialization, loyalty and family integrity (Hogg & Vaughan, 2014). As a means of social support, individuals in a collectivist culture may firstly start seeking help from their family and relatives and then from their friends and gradually from people outside their social network. In this respect, counseling services can be considered as a means of social support for them. As a conclusion, it can be argued that such people may regard counseling services as social support and have a positive attitude towards seeking psychological help.

On the other hand, there is a good number of studies pointing out that persons in living in a collectivist society have a negative attitude towards seeking psychological help (Choi, 2012; Choi & Miller, 2014; Hamid & Furnham, 2013; Mojaverian et al., 2013; Mori, Panova, & Keo, 2007; Nater, 2013). However, such studies have mostly taken individualistic and collectivistic cultures as two incompatible dimensions. In this respect they have compared the two cultural structures. However, recently it has been suggested that two cultures should be considered as two different structures, rather than incompatible dimensions, and be measured as such (Kim, 1994). Moreover, the early studies mostly concluded that the fact that the individuals in a collectivist culture had a negative attitude about psychological help seeking was down to their distrust in the effectiveness of psychotherapy (Mori et al., 2007) and their anxiety of social stigma (Miville & Constantine, 2006). Today, on the strength of the evidence that the applications to counseling services have relatively increased, it can be argued that people may have somewhat managed to overcome their anxiety of stigma and have a more positive attitude towards seeking help.

The stress coping strategies of keep to self, seeking social support and avoidance have been found to be significant predictors of the students' attitudes towards seeking psychological help. It has been established that the students using coping strategy of keep-to-self have a more negative attitude about psychological help seeking. This result appears to share similarity with the findings of other studies. A study conducted with people from various cultural backgrounds has found that the participants have avoided treatment due to their anxiety of losing face and falling into disgrace and, instead, tried to conceal their problems from the public (Porrett, 2010). Another study conducted with the members of the clergy has found that the participants were aware of the fact that they needed help but chose to conceal their problems for the sake of protecting their reputation (Pietkiewicz & Bachryj, 2016). Regardless of whether or not they are aware of their problems, those who opt for the coping strategy of keep-to-self do not wish others to get wind of their situation and know how much difficulty they are in and thus shy away from talking about their issues to others (Şenol-Durak et al., 2011). Consequently, it can be argued that they have a negative attitude towards seeking help because they focus more on the assumed negative sides of the consultation services and they think others will notice about their problems or they will lose face in public because of that.

It has been established that students who opt for the coping strategy of seeking social support have a more positive attitude towards seeking psychological help. There are a lot of studies showing similarities to this result. For example, it was stated that participants who use seeking social support coping strategy had a more positive attitude about psychological help seeking (Avent, Cashwell, & Brown-Jeffy, 2015; Roldan-Bau, 2013). Similarly, another study conducted with the university students from various different ethnic backgrounds has found that the participants who used the coping strategies of seeking emotional and social support had a more positive attitude towards seeking psychological help (Niegocki, 2010). The coping strategy of seeking social support can be described as an individual's request of help from their family, relatives, friends or any other stranger when the individual has a problem. In this respect, psychological help services may be considered as a means of social support. As a conclusion, those who request talking about their emotions or problems to others are expected to have positive psychological help seeking attitudes as a social support.

It has been established that the participants who use the coping strategy of avoidance have a more positive attitude about psychological help seeking. Similarly, a study conducted exclusively with males has found that the participants opting for the coping strategy of avoidance have a more positive attitude (Spry & Walker, no date). Those who use the coping strategy of avoidance choose to stay away from

145

and ignore the situation and engage in different activities such as eating or drinking rather than tackling it (Nater, 2013). At first glance, these findings can be considered as contradictory results, but they are not. On the one hand, applying to counseling services may be viewed as a purposeful and planful way of getting rid of one's problems; on the other hand, it can also be interpreted as a way of avoiding facing up to problems. This is because, individuals may be avoiding facing up to their problems by talking about other issues or leaving the responsibility of solving issues to others in counseling services. Therefore, it is somehow expected for them to have a positive psychological help seeking attitudes with the aim of expectancy for services to provide them the means to avoid their problems.

Lastly, gender has been found to be a significant predictor of the students' attitudes towards seeking psychological help. In other words, male students have been found to possess a more negative psychological help seeking attitude than female students. This result is in parallel with almost all of the research findings available. It is suggested that males' negative attitudes are about psychological help seeking owing to their gender roles (Özdemir, 2012; Yousaf et al., 2015) and the anxiety of both social and self-stigma (Talebi et al., 2016). Social setting and teachings may have a bearing on the development of the individual's attitudes and behaviors. In this respect, the gender roles ascribed to males and females by the society may influence their attitudes towards seeking psychological help. According to the common gender roles, females are mostly regarded as inclined to cooperation and in need of support. In contrast, males are expected to be strong, capable of dealing with their own problems and show no sign of weakness (Özmete & Yanardağ, 2016). According to a study, Turkey is ranked 48th among 60 countries in terms of gender equality (Esmer, 2012). This casts evidences on that the social gender roles are very dominant in the Turkish society. As a conclusion, it can be argued that male students avoid going to psychological counseling services and have a negative attitude because they wish to avoid looking weak by expressing their emotions and seeking help and live up to the roles ascribed to them by the society and successfully maintain their roles.

In the last model, neurotic and open personality, the stress coping strategies of self-concealment and social support, and gender remain as important determinants of the students' about seeking psychological help attitudes.

It appears that the variables in existing studies integrated in TPB theory are part of this theory. It was tried to determine the variables behind the psychological help seeking attitudes in the basic structure of TPB theory, and it was proved. Current research findings show personality, cultural values, stress coping strategies and gender are the determinants of psychological help seeking attitudes.

Some important findings that are not intended for this study are noteworthy. When coping strategies were added to the model, the predictive level of collectivism became insignificant. It suggests that coping strategies can play mediating roles between collectivist cultural characteristics and attitudes towards seeking help. In addition, it was found that the predictive levels of some personality traits and coping strategies were insignificant with the addition of gender variable to the model. This finding indicates that gender has a moderator role in the relationship of personality traits and coping strategies with help seeking attitudes. In other words, the relationship between these variables varies according to gender. In order to make a more reliable interpretation on this issue, firstly, analyses should be performed with the structural equation model which contains more strict rules. Then the mediation and moderation effect of the aforementioned variables can be discussed in the light of the literature.

To summarize, in the framework of personality traits, it can be said that while university students who had higher agreeableness and conscientiousness personality traits had a more positive help seeking attitudes, students who had openness and negative valence personality traits have more negative attitudes. Also, it was found that students with high collectivistic culture have more positive psychological help seeking attitude. In the context of stress coping methods, students who use social support and avoidance coping methods have more positive attitudes, whereas those who use keep-to-self methods have more negative holdings. Lastly, it was found women's help seeking attitudes are more positive than men's.

146

The current study has several limitations. Since many variables are considered in this study at the same time, predictions of some may be suppressed. In subsequent studies these variables can be examined separately. Since participants of the study consist of both university students who did and did not seek help, it may limit the generalizability of the result to other samples such as child, adults or others in different profession areas.

Despite these limitations, the current study has several implications for practices. Given the present findings, there is a need to train counselors' sensitiveness about to train counselors sensitive about the factors that influence students' help seeking attitudes. A clearer understanding of the association among personality, stress coping strategy, collectivism, automatic thoughts, gender and help-seeking attitudes may enable mental health service providers to develop and refine interventions programs specifically. In addition, a variety of activities, such as psycho-education group activities, can be undertaken to change students' negative psychological help seeking attitudes. If outreach programs provide basic information of professional psychological services, they may be more effective. In addition, helping students have effective stress coping strategies may be vitally important for students with healthier mental/psychology.

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148

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149

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150

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TÜRKÇE GENİŞLETİLMİŞ ÖZET

İnsanların günlük yaşamlarında sorunlar yaşaması kaçınılmaz bir durumdur. Evde veya işyerinde karşılaşılan bu sorunlar içerisinde zorbalık/şiddet, bezdiri (mobing), istismar gibi psikolojik sorunlar önemli bir yer tutmaktadır. Dünya sağlık örgütü (WHO)'nün araştırmasına göre; 121 milyon kişinin depresyondan, 24 milyon kişinin şizofreniden, 70 milyon kişinin aşırı alkol kullanımından ve 5 milyon kişinin de zararlı madde kullanımından dolayı sorunlar yaşadıkları rapor edilmektedir. Üniversite öğrencilerinin birçok sorunu yaygın biçimde yaşaması, üniversitelerde psikolojik danışma merkezlerine duyulan gereksinimin oldukça fazla olduğuna işaret etmektedir. Son yıllarda psikolojik danışma servislerinin önem kazanmaya başlaması, artık birçok üniversitede psikolojik danışma merkezlerinin kurulmasına katkı sağlamıştır. Bu fırsatlara rağmen üniversite öğrencilerinin psikolojik yardım merkezlerine başvurmakta isteksiz davrandıkları, merkezlere ilişkin olumsuz tutuma sahip oldukları görülmektedir. Bu bağlamda tutumu psikolojik yardım alma tutumunu etkileyen faktörleri belirlemek, tutumu olumlu şekilde değiştirmek için önemli bir faktör olabilir. Bu faktörler içerisinde bireylerin kişilik özelliklerinin önemli bir belirleyici olması olasıdır. Nitekim bireyin özgün ve sürekli olan duygu, düşünce, davranış ve tutumları kendi kişilik özelliklerinin bir sonucudur. Kişilik özelliklerinin yanı sıra, bireylerin sahip olduğu kültürel değerlerin de onların profesyonel yardım alma tutum ve davranışlarının önemli belirleyicisi olması olasıdır. Çünkü kültür, sorunun tanımlanmasında, yardım almaya karar vermede ve baş etme kaynaklarının değerlendirilmesinde önemli rol oynamaktadır. Bireylerin stresle başa çıkma yöntemlerine sahip olmaları da yardım alma tutumları ve davranışları ile ilişkili olması olasıdır. Örneğin bireylerin yaşadıkları sorunlarla baş etme yöntemlerinin onların yardım alma tutumlarını etkilemesi beklenebilir. Bu çalışmanın temel amacı, üniversite öğrencilerinin psikolojik yardım almaya ilişkin tutumlarının doğasını ortaya koymaktır. Bu çerçevede üniversite öğrencilerinin kişilik özellikleri, kültürel özellikleri ve başa çıkma yöntemlerinin onların profesyonel düzeyde psikolojik yardım almaya ilişkin tutumlarını nasıl yordadığı incelenmektedir. Bu amaç çerçevesinde 1284 üniversite öğrencisinden veri toplanmıştır. Verilerin toplanmasında kişisel bilgi formu, Psikolojik Yardım Almaya İlişkin Tutum Ölçeği, IND-COL ölçeği, Temel Kişilik Özellikleri Ölçeği ve Baş Etme Yolları Ölçeği kullanılmıştır.

Araştırmanın amacı doğrultusunda regresyon analizi yapılmıştır. Ölçme araçlarının sıra etkisini kontrol etmek için, ölçme araçlarının farklı biçimde sıralanması ile oluşturulan dört farklı kitapçık katılımcılara rastgele dağıtılmıştır. Regresyon analizinin ön şartlarını sağlayıp sağlamadığı dikkate alınmıştır. Bu doğrultuda verilerin basıklık çarpıklık değerleri incelenmiş ve normal dağıldığı görülmüştür. Yeterli örneklem büyüklüğüne ilişkin farklı görüşler olmakla birlikte en katı olan görüşe göre katılımcı sayısı/yordayıcı değişken oranının 40/1 olması ölçütü dikkate alınmıştır. Bu ölçütlerin yanı sıra çoklu regresyon analizinin oldukça duyarlı olduğu çoklu normal dağılım için Mahalanobis uzaklık değerleri incelenmiş ve otokorelasyon sorunu olmadığını belirlemek için Durbin-Watson değerinin 1-3 arasında olması ölçütü dikkate alınmıştır.

Araştırmanın bulgularında, model 1'de üniversite öğrencilerinin psikolojik yardım almaya ilişkin tutumlarını, kişiliğin boyutlarından olan negatif değerlilik, uyumluluk, yeniliğe açıklık ve sorumluluğun anlamlı düzeyde yordayıcı olduğu; bulunmuştur. Modelin açıklayıcılık gücü dikkate alındığında kişilik boyutlarının birlikte psikolojik yardım alma tutumunun % 5'ini açıkladığı görülmektedir. Model 2'de kültürün bir boyutu olan topluluçuluk değişkeni modele eklendiğinde üniversite öğrencilerinin psikolojik yardım alma tutumlarının anlamlı bir yordayıcısı olduğu bulunmuştur Kişiliğin boyutları ve topluluçuluğun birlikte yardım alma tutumunun yaklaşık % 6'sını açıkladığı görülmektedir. Model 3'te eklenen başa çıkma stratejilerinden kendini saklama, sosyal destek ve kaçınmanın öğrencilerin psikolojik yardım alma tutumlarının anlamlı birer yordayıcı olduğu bulunmuştur. Kişilik boyutları, topluluçuluk ve başa çıkma stratejilerinin boyutları birlikte üniversite öğrencilerinin psikolojik yardım

152

alma tutumlarının yaklaşık % 9'unu açıklamaktadır. Son olarak Model 4'e cinsiyet değişkeni eklenmiş ve öğrencilerin psikolojik yardım alma tutumunun önemli bir yordayıcısı olduğu bulunmuştur. Modelin açıklayıcılık gücüne bakıldığında ise üniversite öğrencilerinin psikolojik yardım alma tutumunun % 14' ünü açıkladığı görülmektedir.

Uyumluluk kişilik özelliğine sahip olan bireylerin güvenilir, affedici ve başkalarını güvenilir bulma gibi özelliğine sahip olduklarından, ihtiyaç duymaları halinde başkalarının kendilerine yardımcı olacaklarına inandıklarından kendi sorunlarını çözebilmek için yardım almaktan kaçınmayacakları söylenebilir. Sorumlu kişilik özelliği yüksek olan bireylerin planlı, özenli, azimli ve öz farkındalığı yüksek olmak gibi özelliklere sahip olduklarından, sorunu çözmek için bir plan yapacakları, bu kapsamda çeşitli yardım kaynaklarına rahatlıkla başvurabilecekleri düşünülebilir. Yeniliğe açık kişiler meraklı, girişken ve ilgili kişiler olduklarından, ihtiyaç duymaları halinde yardım servislerine başvurabilecekleri ve psikolojik yardım almaya ilişkin daha olumlu tutuma sahip olacakları beklenir. Negatif değerliliği yüksek olan bireylerin durumu kabullenmek, değiştirmek için çaba harcamamak ve sosyal destek aramaktan kaçınmak gibi özelliklere sahip olduklarından, yardım almaktan kaçınacakları ve psikolojik yardım servislerine karşı da olumsuz tutuma sahip olabilecekleri ifade edilebilir.

Toplulukçu kültürün özellikleri olarak, içinde bulunulan grubun fikri, ihtiyaçları ve amaçları; davranışta sosyal normlar ve görevlerin etkisi, grup tarafından paylaşılan ortak inançlar ve grup üyeleriyle iş birliği içerisinde olma isteği vurgulanmaktadır. Bu bağlamda ise iyi insan olmak için ne gerekiyorsa onu yapmaya hazır olmaları, yakın çevresindeki kişilerin fikirlerine önem vermeleri, sosyal destek olarak açıklanabilir. Kendini saklama başa çıkma yöntemini kullanan bireyler sorunlarının farkında olsun ya da olmasınlar, sorunlarını başkalarının fark etmesini, kendilerinin ne kadar zor durumda olduklarının bilinmesini istemez ve bu sebeple sorunlarını başkalarına anlatmaktan kaçınırlar. Sosyal destek alma başa çıkma yöntemi, birey sorun yaşadığında ailesi, akrabası, arkadaşı ya da herhangi yabancı birinden yardım istemesi olarak ifade edilebilir. Bu çerçevede psikolojik yardım servisleri de sosyal destek kapsamında değerlendirilebilir. Kaçınmacı başa çıkma yöntemini kullanan bireyler, soruna doğrudan çözüm aramak yerine ortamdan uzaklaşmak, durumun varlığını yok saymak, farklı etkinliklerle uğraşmak, yemek ya da içmek gibi yöntemleri benimsemektedirler. Bu çerçevede psikolojik yardım servislerine başvurmak ilk olarak sorunlardan kurtulmak için amaçlı ve planlı bir davranış olarak değerlendirilebilecekken, sorunlardan bir kaçış olarak da yorumlanabilir. Kadınların, erkeklere göre daha olumlu tutuma sahip oldukları görülmektedir. Bu durum toplumsal cinsiyet rolleri ile ilişkili görünmektedir. Türkiye'de toplumsal cinsiyet rollerinin oldukça baskın olduğuna işaret etmektedir. Sonuç olarak erkek öğrencilerin duygularını ifade ederek, yardım isteyerek zayıf görünmekten kaçınmak, toplumun kendilerine biçtiği rolleri üstlenmek ve başarı ile sürdürmek için psikolojik danışma servislerine gitmekten kaçındıkları ve yardım almaya ilişkin de olumsuz tutuma sahip oldukları söylenebilir.

The effect of metaconceptual teaching activities on 7th grade students' understandings of and attitudes towards law related concepts

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ABSTRACT   The aim of the study is to examine the effect of teaching activities supported with metaconceptual processes on 7th grade students' conceptual understandings and attitudes of law related concepts in social studies course when compared with traditional instruction. In this quasi-experimental study, convenience-sampling method was used. This study was conducted in four classes of a social studies teacher. Two of the classes were randomly assigned as experimental group and the other two classes were randomly assigned as control group. The participants composed of 114 7th grade middle school students enrolled in a state school in Ankara. Experimental group was exposed to teaching activities supported with metaconceptual processes while control group was exposed to traditional teaching based on the current teaching program. For data collection, conceptual understanding and attitudes tests developed by researcher were used. The results indicate that teaching activities facilitating metaconceptual processes had more positive impact on students' conceptual understanding and attitudes towards law related concepts.

Keywords: Attitude, Conceptual understanding, Metaconceptual teaching activities, Law-related, Social studies

Üstkavramsal öğretim etkinliklerinin 7. sınıf öğrencilerinin hukuk ilintili kavramları anlamalarına ve tutumlarına etkisi

ÖZ   Bu çalışmanın amacı üstkavramsal faaliyetleri aktif hale getirici etkinliklerin geleneksel öğretimle karşılaştırıldığında 7. sınıf öğrencilerinin sosyal bilgiler dersindeki hukuk konularına ilişkin kavramsal anlamalarına ve sosyal bilgiler dersindeki kavramlara ilişkin tutumlarına etkisini araştırmaktır. Bu araştırma yarı deneysel araştırma deseni kullanarak tasarlanmıştır. Çalışma grubu uygun örnekleme yöntemi kullanarak oluşturulmuştur. Bu çalışma bir sosyal bilgiler öğretmeninin dört sınıfında gerçekleştirilmiştir. Sınıflardan ikisi deney ve diğer iki sınıf da kontrol grubu olarak rastgele atanmıştır. Bu dört sınıf, Ankara ilinin merkez ilçesinde okumakta olan toplam 114 7. sınıf öğrencisinden oluşmaktadır. Deney grubundaki katılımcılara üstkavramsal faaliyetleri aktif hale getiren öğretim etkinlikleri uygulanırken, kontrol grubunda ise mevcut olan geleneksel öğretim programı kullanılmıştır. Ölçme aracı olarak araştırmacı tarafından geliştirilen hukukla ilgili kavramsal anlama testi ve öğrencilerin kavramlara ilişkin tutumlarını belirlemek üzere bir tutum ölçeği kullanılmıştır. Elde edilen sonuçlara göre, üstkavramsal faaliyetleri kolaylaştıran etkinliklerin, öğrencilerin hukuk ilintili kavramlara yönelik kavramsal anlamaları ve tutumları üzerinde daha olumlu bir etkisi olduğunu göstermektedir.

Anahtar Sözcükler: Hukuk ilintili, Kavramsal anlama, Sosyal bilgiler, Tutum, Üstkavramsal öğretim etkinlikleri

154

INTRODUCTION

The set of values in the field of education currently focuses on whether students know how to learn rather than what to learn. Concepts help students to make classifications in their minds and facilitate learning and remembering. At this point, it is thought that concept learning has a key role in other learning activities (Ülgen, 2004). Nowadays, it is understood that teaching concepts involves in-depth processes rather than literal repetition of the information in books. In addition, concepts are the symbols or mental tools (Beal, Bolick, & Martorella, 2009; Carey, 2009; Yıldızlar, 2009) which are necessary for learning and thinking as well as actions and theories (Goertz, 2006) about ontology. Concepts, attitudes, beliefs, intentions, emotions, mental states, and cognitive processes ultimately reveal themselves through verbal attributes of behaviours (Krippendorff, 2004).

The need for determining the problems that students have in understanding scientific concepts has been studied excessively in many educational research studies (Beeth, 1998). These studies have repeatedly showed the difference between what is tried to be taught and what students actually learn (Zirbel, 2006). Various terms have been used in literature for the concepts constructed - by students in their minds, which are different from scientific ones. These concepts have been termed as misunderstandings (Anderson & Smith, 1984); primary concepts (Novak, 1987); alternative concepts and prejudices (established bias) by Posner, Strike, Hewson and Gertzog (1982), Hewson and Hewson (1984), Atwood and Atwood (1996), Dove (1998), Wenning (2008); alternative beliefs and naive theories (spontaneous) by West and Pines (1984); beginner theories and alternative patterns (frames) by Barnett and Morran (2002); the science of children by Gilbert, Osborne and Fensham (1982), Bell (1993); the ideas of children by Driver, Guesne and Tiberghien (1985); misconceptions, artificial models by Treagust (1988), Vosniadou (1994), Helm (1980) and Zirbel (2006). In this study, the term 'alternative concepts' is used to describe the concepts constructed by students which are different from scientific concepts. Misconceptions, named as intuitive knowledge or alternative concepts, are non-scientific cognitive structures constructed in an individual's mind (Güneş, 2017). Alternative concepts have been widely studied in science education. However, there are also a number of studies focusing on alternative conceptions in the areas of social studies, economy, history related specific terms, and geography (world, universe, climate, weather condition, rainfall, weather events, natural disasters, etc).

The aim of social studies course is to help students use concepts consciously in accordance with the definitions approved by scientists. A wide range of subjects covered by social studies (history, geography, sociology, psychology, economy, archaeology, philosophy, political, and juridical science) makes it more complicated to define social studies. Considering the variety of the subjects, social studies has become a crucial part of school education program (Beal et al., 2009). Social studies are more than the total of the facts that students memorize. They involve comprehending how human beings, earth, and circumstances are formed, how people communicate with each other and how they respond to the desires of each other. In this sense, students are supposed to analyze developments in their immediate environment and around the world, and realize each perspective that takes place in social studies because of its interdisciplinary nature (Farris & Whealon, 2012).

Many social studies teachers agree that citizenship education, development of information, values, skills, and social participation are the most fundamental goals of social studies (Naylor, 1981). In order to improve these competencies of students, social and human sciences are used in social studies. One of these disciplines is the information presented by science of law in accordance with the goals of social studies. Law, one of the social sciences, is a system of norms and these norms are related with physical and spiritual phenomena (Güriz, 2011). In this context, principal concepts about law are introduced in law-related education (Kepenekci, 2011). Within this subject area topics, such as information about

155

constitution, law and democracy, individual rights and responsibilities, justice, the process of how law is created and how law influences human life are presented to students to create meaning, values, and awareness (Hall, 1993). Thus, both social studies education, which involves the science of law, and law-related education aim to make young people ready for their roles as good citizens in sustaining constitutional democracy (Pitts, 2003). Individuals are supposed to be aware of not only their rights and freedom as a matter of social life but also missions and responsibilities they have in order to regulate the law system properly (Kepenekci & Taşkın, 2017). There is a need to give individuals an opportunity to understand the role of law, which influences their life (Nelson, 1998). Therefore, learning law-related concepts in social studies turns out to be more crucial.

Conceptual Change

Before the development of the models explaining conceptual change, researchers have found that students give different reactions when they have a conflict between what they already know and what they learn from the books in school environment (Sinatra & Mason, 2008). Various researchers in the field of cognitive psychology and education have been interested in interaction between students' previous knowledge and new concepts. Vygotsky (1962), who presents some of the first and most important examples for these studies, asserts that the difficulty in integrating daily knowledge and scientific knowledge emerges due to the fact that new concepts acquired in daily life and scientific information given at school belong to qualitatively different conceptual systems (Schnotz & Preuβ, 1999).

Since 1970s, there has been a change in researchers' views about learning. It is emphasized that students do not acquire knowledge passively but they have active roles in constructing knowledge because of their interaction with the world (Yürük, Beeth, & Andersen, 2009). The results of the various studies have shown that students come to classrooms with self-explanatory ideas and thoughts that are not compatible with scientific ideas (Duit, Treagust, & Widodo, 2008). It implies that students do not come to learning environment with minds like a blank slate (tabula rasa). This view requires students to reorganize or change their existing ideas as they learn new concepts (Hewson, 1981). In this context, there is a need for teachers who design instruction based on the constructivist theory to activate students' existing ideas so that they can draw a relationship between new knowledge and existing ideas (Farris, Kuhrt, Sandburg, & Werderich, 2012).

Over the past four decades, research on students' concepts have resulted in various theoretical approaches about conceptual change (Duit et al., 2008). One of the models that explains the conditions of how students' conceptions change with new ones is Conceptual Change Model (Posner et al., 1982). Posner et al. (1982) suggest four conditions, namely dissatisfaction, intelligibility, plausibility, and fruitfulness that are required for students to change their ideas. They use the metaphorical term 'conceptual ecology' to explain how current concepts of students affect their views on new knowledge. Students' conceptual ecology includes anomalies, analogies and metaphors, exemplars and images, past experiences, epistemological commitments, metaphysical beliefs, and knowledge in other fields (Strike & Posner, 1985). This metaphor includes some claims in itself. According to one of them, individuals have certain beliefs about the nature of knowledge, the nature of physical facts that are under investigation and what is accepted as true and real. According to the second one, concepts are situated in a network of related concepts, presuppositions, and beliefs. Any change in one concept influences how students see other concepts. According to the third claim, students' ideas struggle for the same ecological place (Hennessey, 2003).

There have been other theoretical frameworks proposed by cognitive psychologists to explain the change in conceptions of students. One of them is suggested by diSessa (1993; 2008) whose perspective is known as knowledge in pieces perspective. He explains the process of conceptual change with p-prims (phenomenological primitives). P-prims are fragmented pieces of knowledge that are generated from students' interaction with the world. They are self-explanatory and they are activated in students' minds according to the relevance of the situation. diSessa's perspective suggests that conceptual change is an

156

evolutionary process of gaining deeper and more complete explanations of phenomenon. Unlike diSessa's knowledge as elements perspective, Vosniadou (1994) and Chi (2008) suggest that students' knowledge has a coherent theory-like characters. While Vosniadou (1994) explains conceptual change as the change in students' framework theories, which are constrained by their epistemological and ontological presupposition, Chi (2008) sees conceptual change as ontological shifts. These views of conceptual change mainly focuses on cognitive factors. In recent years, the research on conceptual change has laid an emphasis on the importance of students' characteristics and metacognitive processes. In this respect, intentional conceptual change perspective is proposed by Sinatra and Pintrich (2003). This perspective of conceptual change suggests that students should play an active intentional role in the process of knowledge restructuring. Intentional conceptual change brings cognitive and metacognitive, motivational and affective factors together in explaining knowledge restructuring. Sinatra and Pintrich (2003, p. 6) characterize intentional conceptual change as "goal-directed and conscious initiation and regulation of cognitive, metacognitive, and motivational processes to bring about a change in knowledge". Limon Luque (2003) highlights the role of metacognition in conceptual change by listing the following prerequisites to be fulfilled for intentional conceptual change:

"*It is necessary for individuals to be aware of the need for change and to be able to know what to change. I call this 'metacognitive prerequisite of intentional conceptual change'.*
Individuals must want to change. They must consider change as a personal goal, not as something imposed by others. I call this 'volitional prerequisite of intentional conceptual change'.
Individuals must be able to self-regulate their process of change; that is, they must be able to plan, monitor, and evaluate their process of change. This is referred to as 'self-regulation prerequisite of intentional conceptual change' (p. 138)."

According to Limon Luque (2003) students need to notice the contradictions between their existing ideas and the ideas presented in a particular task and they need to use their metacognitive knowledge to evaluate what they already know, what they do not know and where the obstacles lie to accomplish a change in their ideas. Various empirical studies in the field of science education have been conducted that support the positive role of metacognition in the process of conceptual change (Beeth, 1998; Ezberci, 2014; Hennessey, 2003; Hewson, Beeth, & Thorley, 1998; Kırbulut, 2012; Luque, 2003; Özsoy, 2007; Saçkes, 2010; Sinatra & Pintrich, 2003; Yıldız, 2008; Yürük, 2005).

Metacognition

What enchants scientists as well as people and numerous philosophers is the self-interrogative nature of human thoughts (Metcalfe & Shimamura, 1994). Flavell and colleagues have introduced the term "metamemory" to literature for the first time after conducting a range of research on children at preschool and primary school level (Flavell, 1979). These studies have introduced the term metacognition in the most general sense as 'reflections over cognition' and 'an individual's thinking about their own thinking' (Schoenfeld, 1987). Metacognition is originally expressed as knowledge and regulation of cognitive processes of an individual during learning processes (Brown, 1978; Flavell, 1979). In short, metacognition is the way of thinking about thinking and knowing how to know (Hartman, 2002b). According to Hennessey (1999), metacognition is characterized as 1) the awareness of an individual's own thinking, 2) the awareness of the content of an individual's own concepts, 3) the active monitoring of an individual's cognitive processes, 4) an individual's regulation of his own cognitive processes, 5) the application of heuristics to organize problem solving methods of an individual.

According to Yürük (2014), metacognition is a versatile concept involving both higher order thinking activities and knowledge about one's own cognitive activities. In the relevant literature, metacognition, metacognitive, cognition knowledge, executive cognition, executive control, and self-regulation are used as terms to refer to the concept of metacognition. Saçkes and Trundle (2016) have listed the common aspects of different definitions about metacognition as knowledge about cognition, control, and regulation of cognitive activities and an awareness of mental activities and one's own concepts.

157

As it is seen, metacognition is defined differently by various researchers in accordance with the research area they focused on (Akın & Abacı, 2011). Particularly the latest psychological studies have evaluated the role of metacognition in learning, memory, thinking, problem solving, and decision-making (Metcalfe & Shimamura, 1994). The reason why metacognition is so popular among researchers is due to the fact that it is essential for daily reasoning and because of those who value scientific thinking as much as social interactions (Schneider, 2008).

The components of metacognition vary by the definitions of different researchers. When the studies about metacognition are analyzed, it is observed that the focus is on the components involving metacognitive knowledge and regulation of cognition. According to Pintrich, Wolters, & Baxter (2000, p. 44), metacognition is categorized in two commonly agreed components named as metacognitive knowledge, metacognitive control and regulation. Metacognitive knowledge is typically the knowledge about one's own cognition (Anderson, Krathwohl, Airasian, Cruikshank, & Mayer et al., 2001). This knowledge is about ourselves; *tasks* we encounter and *strategies* we use (Garner, 1987, p. 17). Metacognitive control is conscious and unconscious decision that we make based on the output of monitoring process. The control processes arise from an individual's behaviours related to his/her monitoring function (Schwartz & Perfect, 2002, p. 4-5). At this point, the regulation of cognition means a series of activities managing to control learning (Schraw, 2002, p. 4). Although various regulatory processes are defined in literature, three fundamental processes are involved in all definitions. These are planning, monitoring and evaluation (Schraw & Moshman, 1995, p. 354). Evaluation means changes in planning at the beginning or changes causing revision and in determining improvements towards the goal, more monitoring and more evaluation (Harris, Graham, Brindle, & Sandmel, 2009, p. 134). It is apparent that more conceptual studies are needed to find out a common definition of metacognition and its components.

From another perspective, it is thought that metacognition will have significant contributions for areas like education aimed to improve especially learning and studying since focus on most of the metacognitive applications involves some of learning types (Schwartz & Perfect, 2002). Particularly, we should organize experiences triggering students to think so that they will have new perspectives based on proofs they find persuading (Barton, 2010). Beeth (1998) points out that it is inevitable for metacognition to be associated with conceptual change and teachers should use metacognition during instruction.

Metaconceptual Change

Taking the components of metacognitive knowledge into consideration in the process of conceptual change is significant for students both to show their planning, monitoring and evaluation skills and to form mental models (Hartman, 2002a). Because the latest research proves that students come to course with self-explanatory ideas and thoughts that are not compatible with scientific opinions (Duit et al., 2008). Many researchers emphasize the role of metacognitive processes in changing students' alternative ideas (Cheng, 2012; Delgado, 2015; Demir, 2010; Georghiades, 2004; Hennessey, 1991; Kırbulut, 2012; Kırbulut, Uzuntiryaki-Kondakçı, & Beeth, 2016; Kun, 2011; Saçkes & Trundle, 2016; Thorley, 1990; Vosniadou, 1994; Vosniadou, 2003; Yıldız, 2008; Yürük, 2007; Yürük et al., 2009; Yürük & Eroğlu, 2016). According to Hennessey (2003), individuals' awareness of their own thoughts may help them to change their alternative conceptions. At this point, it is inevitable to focus on the metacognitive processes that are directly related with concept learning. Since the concept of metacognition is a wide term generally involving various knowledge and processes, it will be useful to differentiate individuals' metacognitive knowledge and processes related to their conceptual system from other metacognitive knowledge and processes. Yürük et al. (2009) has used the term 'metaconceptual' to refer to the metacognitive knowledge and processes that are directly related with one's conceptual system and the factors affecting conceptual learning. Metaconceptual knowledge and processes include a part of total knowledge and activities that are metacognitive in nature (Yürük et al., 2009). Huang (2011) expresses that metaconceptual thinking is pertained to a wider category of metacognition.

158

Moreover, he asserts in his study that metaconceptual thinking contributes to conceptual change. Yürük (2005) categorizes metaconceptual processes into three fundamental components: a) metaconceptual awareness, b) metaconceptual monitoring and c) metaconceptual evaluation. According to Yürük (2007), metaconceptual awareness refers to one's awareness of his/her current ideas or past ideas about natural phenomenon and elements of conceptual ecology including epistemological and ontological presupposition. Metaconceptual understanding generates information about one's current cognitive state or an ongoing cognitive process that is active while the individual is learning a new concept. Yürük (2007) lists different subcategories of metaconceptual monitoring as monitoring understanding of an idea, monitoring information coming from other people or sources, monitoring the consistency between existing idea and new information, monitoring existing idea and new experience and monitoring changes in ideas. Metaconceptual evaluation refers to a metacognitive process in which individuals make judgmental decisions about new and existing ideas and provide justifications for them. When metaconceptual evaluation is active, students make comments about the relative plausibility and usefulness of ideas, choose an idea as the valid one among several ideas and provide justifications for the validity of the chosen idea (Yürük, 2007; Yürük et al., 2009). Hewson et al. (1998) who have carried out studies on this subject, state that metacognition firstly facilitates teaching concepts, secondly takes place in the structure of conceptual change and lastly gives teachers an opportunity to monitor the learning process effectively by giving information about the status of the concept that students have learned.

Aim

The main aim of this study is to investigate the effect of teaching activities supported with metaconceptual processes on 7th grade students' understanding of law related concepts. In other words, current study is set out to determine the effects of teaching activities supported with metaconceptual processes on changing alternative concepts about law related topics in social studies course compared to the instruction applied within the scope of the current education program. In addition, the effect of teaching activities supported with metaconceptual activities on students' attitude towards the concepts acquired in social studies course is also investigated in the study. Moreover, present study compares conceptual understanding of the students in the classes where current education program was used and students in the classes where teaching activities were supported with metaconceptual processes after 14 weeks of teaching.

As the sub-goals of the study, the effect of metaconceptual teaching activities on 7th grade students' conceptual understanding before the instruction, after the instruction, and after 14 weeks following the post test. Moreover, their attitudes towards the concepts acquired in social studies are investigated before and after the teaching activities are carried out.

METHODOLOGY

The Research Design

A quasi-experimental research design was used in this study (Thyer, 2012). While teaching activities supported with metaconceptual processes were implemented in the experimental group, traditional instruction was implemented in the control group. In this study, the term "traditional instruction" refers to the implementations determined by the curriculum currently applied at schools in Turkey. In this form of instruction, teaching was mainly teacher-centered and carried out in a didactic approach with question-answer method. Students were not asked questions activating their metaconceptual processes.

159

The Study Group

The study was carried out at a state middle school located in Yenimahalle district of Ankara. The school provides education to students with a wide range of different socio-economic status. This study was carried out in four classes of a social studies teacher. The students in two of these classes formed the control group and the students in the other two formed the experimental group. The classes were assigned randomly for control or experimental group. Other teachers who had information about the participants also contributed to the study. The sample of the study consisted of 114 seventh grade students in total. Convenience sampling method was used in the study. Metaconceptual teaching activities were applied in two classes (Class B and D) and traditional instruction in accordance with the current curriculum was applied in the other two classes (Class A and C). The students did not have any formal education about law related concepts before. The number of students who took conceptual understanding test and attitude scale and the gender distribution of the students in control and experimental groups are shown in Table 1.

Table 1.
The number of participants by gender who took conceptual understanding test and attitude scale

Course	Pre-intervention	LRCUT			Gender		SSCCAS		Gender	
		Pre-test	Post-test	Delayed	F	M	Pre-Attitude	Post-Attitude	F	M
(A) Control group	31	29	28	29	14	15	30	30	16	14
(B) Experimental group	36	33	30	33	13	20	33	33	13	20
(C) Control group	31	31	28	30	15	15	31	31	15	16
(D) Experimental group	31	30	28	28	16	12	30	30	18	12
Total	129	123	114	120	58	62	124	124	62	62

Note: LRCUT is the abbreviation of Law Related Concepts Understanding Test, which stands for a test measuring the students' conceptual understandings about law related concepts. SSCCAS is the abbreviation of Social Studies Course Concepts Attitude Scale, which stands for a scale measuring the attitudes of students towards the concepts acquired in social studies course. "F" means female and "M" means male.

Sources of Data

The conceptual understanding test

A three-tier conceptual understanding test constructed by the researchers was used to assess the conceptual understanding of the students about law related subjects. The steps followed during the process of constructing conceptual understanding test are given below:

At first, a list of concepts related to law was formed. Expert opinion was taken for the concept list. Secondly, open-ended questions were asked to 252 students to determine their alternative conceptions about law related subjects. Content analysis was done for the data acquired from open-ended questions written according to the determined concept list. Two other experts were consulted during content analysis. The data acquired from the content analysis of the open-ended questions were used to prepare an item pool. The concepts involved in the law-related conceptual understanding test and their question numbers are given in the table of specifications (See Table 2). This table is the last version after all analyses and corrections.

Table 2.
Table of specifications: The conceptual understanding test about law related concepts

	Concepts	Question number		Concepts	Question number		Concepts	Question number
1.	Justice	16	14.	Power, Opposition, Coalition	28	27.	Assignment (Responsibility, Right)	20, 40
2.	Constitution	6, 24	15.	State and person respectful to human rights (Social State)	27, 39	28.	Freedom (Freedom of Opinion)	8, 33
3.	Independence	41	16.	Public Opinion	4, 25	29.	Censor	21
4.	Republic	3, 22	17.	Law	30	30.	Non-Governmental Organization	15, 29
5.	Democracy	37	18.	Participation	45	31.	Responsibility	9, 20
6.	State	36	19.	Judge of the Army	38	32.	Social State	27, 39
7.	Sovereignty	1	20.	Convention	32, 42	33.	Theocracy	18, 34
8.	Secret Vote	35	21.	Morals	11	34.	Morals	11
9.	Separation of Powers	34	22.	Secularism	5	35.	Judgement	14, 31
10.	Right	13, 40	23.	Constitutional Monarchy	44	36.	Independence of judiciary (Independent Courts)	14
11.	Law	23	24.	National Sovereignty	7, 17	37.	Legislation	10, 26
12.	State of Law	43	25.	Monarchy	12, 34	38.	Execution	2
13.	Superiority of Law	19	26.	Oligarchy	34			

Thirdly, expert opinion was taken for the items of the conceptual understanding test. In this respect, 4 experts in social studies,; 5 experts in social studies education; 2 experts in assessment and evaluation; 2 experts in educational sciences for the law related conceptual test; 2 experts in language education, and 1 social studies teacher were consulted to check the language and sentence structure of the conceptual understanding test and its appropriateness for the age group. The necessary editing in the conceptual understanding test was made for the content validity in accordance with the expert opinions. Fourthly, a pilot test was applied to 351 seventh grade students. The discrimination index (point biserial correlation coefficient) of each question of the pilot test was calculated. The discrimination indices of 43 items of the pilot test were calculated to be over 0.30. Since the item discrimination indices of two items were low, new items were written in accordance with the expert opinion and the revised test was administered to a different group of 357 seventh grade students. The reliability coefficient (KR 20) of the test with 45 items was calculated as 0.856. If the reliability coefficient KR20 is .80, it is accepted as reliable and if the coefficient is .90, it is accepted as very reliable (Fraenkel, Wallen, & Hyun, 2011, p. 157; Şencan, 2005, p. 58). The average of item difficulty index was calculated as .533. It is seen that the reliability coefficient of the study is supported with the quantitative values stated in the literature.

The item structure of the three-phased test is as follows:

A multiple-choice question was asked about law related concepts in the first phase of the law related three-phased conceptual understanding test (CUT). Students were asked to explain why they chose a particular option in the first-phase by their own sentences in the second phase of the test. In the third phase, students were asked whether they are sure about their answer. Thus, a cyclic approach was used in order to verify the results through questions answered one by one. In addition, the possibility for unintentional answers of the questions was minimized. In other words, the possibility for regarding the answers with no bases as alternative concepts was minimized. The CUT was applied to both groups before, after and fourteen weeks after the teaching activities to evaluate their conceptual understanding about law related subjects. Some items of the test can be seen in data analysis section of this article.

The attitude scale

The other data-collecting tool in the study was attitude scale towards concepts acquired in social studies course. The details about how this scale was developed are given below:

Firstly, literature was reviewed before starting to write items and it was found out that there was not any scale measuring attitudes towards concepts of a lesson in literature. Therefore, under the supervision of experts, 16 open-ended questions were asked to the students to find out their opinions about the concepts in social studies course. These questions were asked to 221 students from several elementary schools in Mamak, Sincan, Yenimahalle and Çankaya, the center districts of Ankara. After the application period, code numbers were given to each paper of the participants and content analysis was made. A data set that consisted of sentences reflecting the feelings and thoughts of the participants about the concepts in social studies course was formed. With the help of the data set, items were written. During the process of item writing, cognitive, affective, and behavioural aspects of attitudes were initially taken into consideration. After necessary analysis was completed, a draft version of attitude scale with 80 items about the concepts in social studies course was formed under the supervision of experts. 3 experts in social studies, 3 experts social studies education 3 experts in assessment and evaluation; 3 experts in language education, 4 experts in educational sciences and 3 social studies teachers were consulted to examine whether the items were appropriate for Turkish language and students' age level. The necessary editing was made with the help of these experts. The scale was applied to a small group pilot test of 30 elementary school students to get their opinions about appropriateness of the 80 items and to determine whether there were any incomprehensible items. Because of the numerous items of the scale, 3 confirmative items were used to control whether students marked their choices consciously by paying close attention. The pilot version of the attitude scale included 80 items; 50 items were positive and 30 items were negative. The positive items in the scale were marked as: Totally agree=5, Agree=4, Neutral=3, Disagree=2 and Totally disagree=1. The pilot version of the scale was applied to 363 seventh grade students. The Kaiser-Meyer-Olkin (KMO) statistics was measured as .953 showing that the number of the sample was sufficient for the factor analysis. KMO value is suggested to be .80. The measurement over .60 is acceptable and the value over .90 is accepted as perfect (Kalaycı, 2010, p. 322; Pallant, 2005; Sharma, 1996, p. 116).

Explanatory factor analysis was used to measure the data gathered from 363 students. As the explained total variance was examined, it was observed that 16 factors were found to have eigenvalue over 1. Through this scale of 16 factors, 63.684% of the characteristic that was aimed to be measured was evaluated. When factor loads were examined, 29 items whose factor load was below .40 were eliminated from the scale. 19 items whose factor loads were smaller than .10 were also extracted from the scale. When factor analysis was applied to the left 32 items, it was observed that the scale had four factors bigger than 1 eigenvalue. When the factor loads of the items gathered in four factors were analysed, it was observed that some items were loaded on few factors. Therefore, three inappropriate items were eliminated from the scale and the factor analysis was done for the third time. When the total variance was examined, it was observed that there were three factors which had eigenvalue over 1. Through this scale of three factors, totally 51.927% of the characteristic that was aimed to be measured was evaluated. The first one of the factors was named as boredom/delightfulness, the second one was named as easiness/difficulty, and the third one was named as practicality under the supervision of experts. Some of the items loaded in sub-factors of the scale are below:

1st sub-factor: I want to learn more concepts about social studies course. (Item 3)
2nd sub-factor: Learning concepts in social studies course is more difficult than the other courses. (Item 17)
3rd sub-factor: I think the concepts that I learn in social studies course will help me express my thoughts. (Item 29)

The confirmatory factor analysis was carried out for the scale with 28 items with a different sample and RMSEA, a measurement of significance of the model, was found to be .028. Confirmatory factor

analysis was implemented with 347 students. According to the results, χ^2 square statistics, the rate of similarity, was found to be χ^2 (347) = 445.11 p< .01. The model was found to be appropriate for model data fit according to χ^2/sd, RMSEA, NFI, CFI, S-RMR, RFI fit criteria (Çokluk, Şekercioğlu, & Büyüköztürk, 2010). It was verified that the 5-point Likert type scale with 28 items had only one dominant factor and 3 sub-factors which were related to each other according to fit criteria. The lowest score that can be obtained from the 28-item scale is 28 and the highest score is 140. Cronbach alpha coefficient of the scale with 28 items was calculated to determine the internal consistency of the scale and it was found out as .931, which means high reliability. The reliability of the first sub-factor was .923; one of the second sub-factor was .853 and one of the third sub-factor was found as .814. The first sub-factor consisted of 14 items, the second sub-factor consisted of 7 items and the third sub-factor consisted of 7 items. In addition, retest reliability was measured with 55 students who were randomly chosen for the whole scale and it was calculated as .821. The reliability coefficient ranges from 0 to 1. When it is close to 1, it means that reliability is high and the internal consistency between items is also high. Generally, if the reliability coefficient is around .90, it is accepted as perfect. If it is around .80, it is very good and if it is around .70, it is sufficient (Fraenkel et al., 2011, p. 157; Kalaycı, 2010; Kline, 2011, p. 70). In order to find out whether the items measured the characteristic that was aimed to be measured, item test correlations were calculated. The whole item total test correlations were over .30. Based on this finding, it might be stated that all items served the purpose of the study. In other words, the items measured what was aimed to be measured (Creswell, 2012; Crocker & Algina, 2008).

Teaching Activities

Seventh grade students of four classes of a teacher were participated in the study. Two classes of the teacher were selected as experimental group and two of them were selected as the control group. The teacher did not do any activities supported with metaconceptual processes in the group exposed to traditional instruction. In other words, in the control group the subject was taught within the scope of the existing curriculum of social studies. The teacher was at the center of teaching that was carried out mainly in the lecturing format. The teacher asked different students to read the texts about the subject provided in the textbook and during this process, students asked the points that they did not understand to the teacher. These questions were answered by certain students. In addition, what the students knew about the subject before was not taken into consideration and the concepts were associated with students' daily life at the minimum base. At the end of the unit, the evaluation questions provided in the textbook were answered together in the classroom. Moreover, students were asked to prepare a performance assignment about the subject they chose. At the end of each unit, the teacher wrote short summaries of each units, and distributed them to the students. These summaries were seen as a main source for students to study for the exams in addition to the course book.

Teaching activities supported with metaconceptual processes such as making posters, keeping diaries, concept mapping, concept caricatures and cards, course room, and group discussions were conducted in experimental group. Activating metaconceptual awareness, monitoring and evaluation activities about the concepts in the minds of the students were the aims of these activities. Before each activity, students were informed about teaching and necessary instructions were given. The researcher and the teacher met regularly to plan and evaluate the process of teaching. The teaching activities were carried out for four weeks and these four weeks were the time that course subjects would be held according to course program. *Poster making*, one of the metaconceptual activities, was used in experimental group in order to facilitate student participation in the processes of metaconceptual awareness, metaconceptual monitoring and metaconceptual evaluation. Each poster that the groups prepared with peer cooperation in a social learning environment was presented in classroom. The students were asked to revise their posters about law related concepts after four weeks. By this way, students were provided with an opportunity for monitoring the changes in their thoughts before and after they prepared their posters. The groups' spokespeople presented what they changed in the posters as well as the reasons. Another metaconceptual activity *concept mapping* was also included in teaching process to help students distinguish the relation between conceptual inputs presented to them. The students were provided with an opportunity for sharing and comparing the concept maps they organized with their classmates. By

163

this way, they had a chance to observe and monitor the ideas of their friends about concepts in a controlled classroom environment. With the help of *concept caricatures and cards*, students thought over the concept being discussed especially via caricatures. During this discussion, they were given the opportunity to bring out their alternative concepts about law related subjects by organizing a cognitive conflict environment in the classroom. Students were separated into groups and asked to prepare concept cards about their own caricatures. They are also asked to present the cards they prepared in the classroom. This activity enabled students to be aware of their own cognitive activities and monitor their friends' ideas while discussing about the concept cards and to decide whose ideas were more accurate or logical from a metaconceptual point of view. The groups with two, three, or four students *in-group discussions* were sometimes expected to participate in activities and to discuss their ideas about the presentation or any case that was presented. Thus, they became aware of their own ideas, monitored their own ideas and friends' ideas and had the opportunity to evaluate whose ideas explained the situation better. What is more, *classroom discussions* were involved into the process to make students share their ideas with their friends. The students were asked to defend why their ideas were the best option to explain the conceptual input. They were able to carry out metaconceptual evaluation by choosing the most proper explanation and explaining the reasons for it. The students were asked to *keep diaries* in which they would give details about their thoughts related to the activities they joined during the teaching process. By means of diaries, the students who could not express themselves verbally were able to participate in activities. There were questions in the diaries activating metaconceptual schemas/patterns of the students. Some examples for these questions were given below:

"Did you learn anything new in these activities? ... Is there any difference when you compare your own ideas with your friends', your teacher's or those in course books? Please explain it. Whose ideas explain the situation better? Why?"

By means of such questions, students were given the opportunity to express themselves through various communication channels. The teacher regularly checked these diaries.

The teaching activities mentioned above were integrated into the following teaching activities related to the content through cyclic approach in order to activate the metaconceptual processes. Six teaching activities were designed for this aim. One of them was named as 'tell us about the concepts and their features'. This activity included concepts such as independence, republic, democracy, state, sovereignty, constitutionalism, rights, public opinion, duty, freedom, responsibility, national sovereignty, monarchy, oligarchy, theocracy, and censor. The students were asked to write a paragraph including at least eight of the sixteen concepts written in worksheets and their features with examples from their own lives. They shared these paragraphs first with their desk mates and then classmates. Afterwards, the class discussed which paragraph expressed the concepts scientifically and accurately with reasons. At last, students were asked to write the diaries distributed by the teacher according to instructions.

The second activity was 'What is my definition?'. This activity included concepts such as justice, constitution, rights, convention, rituals, national sovereignty, naive, morals and dynasty. The students were given a scientific fact and several statements about alternative ideas about the concept being discussed during the activity. The students were asked to make discussion first with their desk mates and then with the other friends in their classroom. A vote was held on the properness of the concept having discussed. The students choosing different definitions were asked to explain their choices by giving reasons and examples.

After finding out the proper definition for the concept, students also found out which concept the other definitions were related through classroom discussion. Then, the teacher asked students to write questions about metaconceptual processes on their diaries. Classroom and group discussions as well as peer assessment were carried out during these two activities.

The third activity was 'What are the hidden concepts in Atatürk's sayings?' The students were separated into groups of 5-6 students and envelopes were given to these groups. Each group was asked to prepare

164

a poster about the concept in Atatürk's sayings in the envelopes. The necessary stationery equipment's were provided for the students as well as a pattern about the content of this poster. The pattern included the concept that the saying expressed its definition, its significance, related concepts, and the examination of why Atatürk uttered that saying, the visuals, caricatures/acrostics, and slogans/stories about the examined concept. Each poster was presented by the spokesperson of each group. The posters were hanged on the walls of the classroom. The students were asked to evaluate the posters individually and in groups by using the given rubric. Then an election was held on this issue. At the end of the teaching process, a form was given to the students to make changes on their posters so that they would realize and monitor changes in their minds. By means of this form, the groups interacted with each other. Then the students were asked to write their thoughts on diaries using the given reminders. That is to say, they were expected do conceptual monitoring.

The fourth activity was 'Concept maps are talking' and 'Let's introduce a law!' The students were given two sets of concepts. One of these sets included concepts of judgement, council of ministers, legislation, independent courts, president, convention, prime minister, headquarters, division of powers, administration, legislation, Grand National Assembly of Turkey. The other set included concepts of constitutional state, social state, equality, constitution, democratic state, secular state, the state committed to Atatürk's nationalism, the state respectful to human rights and the ottoman basic law. The relationship between these two sets was illustrated via concept maps. Moreover, students were asked to make a law the subject of which was determined through group discussion. By this way, concepts as bill and legislative proposal were involved in the process. The students were asked to discuss about the organization of their concept maps first with their desk mates and then in the groups of 3-4 students. Newspaper reports whose content was appropriate for the students and which included the concept sets mentioned above were analysed. If required, blank concept maps were given to the students, hung, or reflected on the board. Thus, they would have the chance to compare their own concept maps with the ones prepared in groups.

The fifth activity was 'The caricatures find meaning through concept cards'. This activity dealt with republic, democracy, constitutionalism, monarchy, oligarchy and theocracy concepts. The students were divided into groups of 5 or 6. Each group was responsible for one type of regime. The concept caricatures of each regime that the groups were responsible for were hanged on the board. The students prepared concept cards individually at first. These individual cards were shared between the peers in the same group. Then, the individual cards presented in the classroom and they were stuck under the concept caricatures related to them. The students were asked to set practical role options of scholars as a teacher, a historian, or a scientist during the activity. At last, the students were asked to write the diaries with the help of the directives predetermined before.

The sixth activity was 'Let's do an interview'. The students had interviews with their parents or their elders by choosing one of the examined concepts before. They shared the details of their interviews with classmates. The activities carried out during the research were prevented from being limited to school. The students were asked to monitor their parents' ideas as well as their own ideas about the concepts during this activity. In experimental group, where teaching activities were supported with metaconceptual processes, there was a whole class participation, that is to say, all the students participated in activities rather than certain students.

Data Analysis

T-tests were used to analyse the difference between experimental and control groups in terms of their conceptual understanding and attitude towards law related concepts. The data set, which was formed as a basis for quantitative analysis, was built from pre-LRCUT, pre-SSCCAS; post-LRCUT, post-SSCCAS and LRCUT delayed test. Independent samples t-test was used to compare the conceptual understanding of students in experimental group and conceptual understanding of students in control group. The significance level was accepted as .05. In statistical hypothesis test, Cohen's d effect size standards were used to determine the level of absolute effect size (Gravetter & Wallnau, 2007; Gravetter & Wallnau,

2014). The conceptual understanding test included 45 questions and four options. While one of these options was correct, the other three options were made up of alternative structures the students expressed about law related concepts (Data Sources). The three-phased test included three variables. The students were asked a multiple-choice question about a law related concept in the first variable. If the participant chose the correct option, he got 0 point. If he chose one of the other options including alternative concepts, he got 1 point. In the second phase, if the participant expressed thoughts using sentences which were classified in alternative concepts rather than the sentences that are specified by scientists, this value was coded as 1. On the other hand, when there was confusion or lack of knowledge in the answers of the students, it was coded as 0. The third phase was structured considering the data acquired in the other phases. Accordingly, when the student was sure about his answer in the first two phases, he got 1; if he was not sure, he got 0. If the participants got 0 in any phase of the three-phased conceptual understanding test, the question was evaluated as 0. This circular structure of the evaluation process prevented the answers of the participants that have no justification from being evaluated as alternative concepts in the analysing process. In addition, the participants' sentences about law related concepts in the second phase of the conceptual understanding test were analysed through content analysis. In order to facilitate the analysis of the attitude scale about the concepts learned in social studies course, 5-point Likert scale out of a hundred points was transformed into 5-point scale. An example answer for the of the open-ended question phase of the three-phased law related conceptual understanding multiple choice test is given below:

Table 3.
An example about the concept of judgement-post-test (Student A)

Item	Questions
31.1.	Which unit of a state is emphasized in the saying "Justice is the basis of the state."? a) Execution b) × Jurisdiction c) Legislation d) Administration
31.2.	Explain the meaning of the option you've chosen above with your own sentences. Judgement is performed by independent courts. There is justice in courts, so my option is jurisdiction
31.3.	How sure are you about your option? a) × I'm sure b) I'm indecisive c) I'm not sure

FINDINGS

Findings of the current study, which investigated the attitudes of students towards the concepts in social studies course and their conceptual understanding about law related concepts, are given under this title.

The Findings about Conceptual Understanding

Before the implementation of teaching activities, Law Related Conceptual Understanding Test (LRCUT) was applied as a pre-test to experimental group and control group. Also, t-test was used in order to find out whether there was any significant difference between control and experimental group according to the students' conceptual understanding about law related concepts. Table 4 provides the results obtained from independent samples t-test.

Table 4.
The results of t-test according to groups of law related conceptual understanding (LRCUT) pre-test scores of control and experimental groups

Test	Group	N	x̄	s	t	df	p
Pre-test	MAITAG	63	48.75	15.39	1.015	121	0.312
	TTG	60	46.07	13.72			

Note: MAITAG is the experimental group where teaching activities were supported with metaconceptual processes and TTG is the control group in which traditional instruction was carried out.

As seen in Table 4, there is no significant difference ($p>0.05$) between control ($\bar{x}=48.75$; $s=15.39$) and experimental group ($\bar{x}=46.07$; $s=13.72$) in terms of their conceptual understandings about law related concepts that were measured before the teaching process.

LRCUT was applied to the student in control and experimental groups again after the teaching process as a post-test. Independent samples t-test was used to compare pre and post-test scores of students in experimental group where teaching activities were supported with metaconceptual processes (See Table 5) and for control group where traditional instruction was used (See Table 6).

Table 5.
The results of t-test according to pre and post-LRCUT test scores of students in experimental group

Group		N	x̄	s	t	df	p	Cohen's d
MAITAG	Pre-test	58	49.88	15.32	-3.729	57	0.000*	0.65
	Post-test	58	60.50	17.50				

*p<0.05

As can be seen from the table above, the students' post-test scores ($\bar{x}=60.50$; $s=17.50$) were higher than their pre-test scores ($\bar{x}=49.88$; $s=15.32$) in experimental group. From the table we can also see that there is a statistically significant difference in conceptual understanding of students about law related concepts before and after the activities supported with metaconceptual processes were implemented ($p<0.05$). According to Cohen's (1988) classification, it is seen to be a great effect size ($d=0.65$). Thus, it can be said that students benefit from these activities.

Table 6.
The results of t-test according to pre and post-LRCUT test scores of students in control group

Group		N	x̄	s	t	df	p
TTG	Pre-test	56	46.87	13.73	-0.925	55	0.359
	Post-test	56	49.60	15.40			

It can be seen from the data in Table 6 that there is no significant difference ($p>0.05$) between the students' post-test scores ($\bar{x}=49.60$; $s=15.40$) and their pre-test scores ($\bar{x}=46.87$; $s=13.73$) in control group.

Post-test scores of control and experimental groups were also compared through independent samples t-test in order to understand whether there was any significant difference between conceptual understanding of students in control group and conceptual understanding of students in experimental group about law related concepts after the teaching process (See Table 7).

Table 7.
The results of t-test according to post-LRCUT scores of control and experimental groups

Test	Group	N	x̄	s	t	df	p	Cohen's d
Post-test	MAITAG	58	60.50	17.50	3.525	112	0.001*	0.66
	TTG	56	49.60	15.40				

*p<0.05

As seen in Table 7, the experimental group's post-test scores ($\bar{x}=60.50$; $s=17.50$) about law related concepts measured after teaching process were significantly higher ($p<0.05$) than students who were exposed to traditional instruction post-test scores ($\bar{x}=49.60$; $s=15.40$). According to Cohen's (1988) classification, it is seen to be a large effect size ($d=0.66$).

The Findings about Delayed

Fourteen weeks after the post-test, Law Related Conceptual Understanding Test was reapplied to control and experimental groups as a delayed test in order to find out whether there was any difference in students' conceptual understanding about law related concepts. Independent samples t-test was used to

167

analyze the difference between test scores of experimental group and the control group. The Table 8 below illustrates the t-test results.

Table 8.
The results of t-test according to law related conceptual understanding delayed test scores of control and experimental groups

Test	Group	N	x̄	s	t	df	p	Cohen's *d*
Delayed test	MAITAG	61	65.14	16.31	5.294	118	0.000*	0.97
	TTG	59	49.72	15.57				

*p<0.05

Fourteen weeks after the post-test, it was found out that conceptual understanding of the students who were exposed to metaconceptual processes ($\bar{x}$=65.14; *s*=16.31) about law related concepts was significantly higher (*p*<0.05) than the conceptual understanding of students who exposed to traditional instruction ($\bar{x}$=49.72; *s*=15.57). According to Cohen's (1988) classification, it is seen to be a large effect size (*d*= 0.97). Even after 14 weeks, the difference between the groups continues. It continues even with a larger effect size. In other words, students benefit from activities supported with metaconceptual processes.

The Findings about Attitude

Before the teaching process, the attitude scale about concepts (SSCCAS) was applied to both experimental and control group as a pre-test. Independent samples t-test was used to analyze whether there was any significant difference between attitude scores of students in experimental group and attitude scores of students in control group and the results were shown in Table 9.

Table 9.
The results of t-test according to pre-SSCCAS scores of control and experimental groups before teaching process

	Group	N	x̄	s	t	df	p
Attitude level	MAITAG	61	3.86	0.50	-0.881	122	0.380
	TTG	63	3.94	0.51			

From the table above we can see that there is no significant difference (p>0.05) between the attitude scores of students in control group ($\bar{x}$=3.94; *s*=0.51) and students in experimental group ($\bar{x}$=3.86; *s*=0.50) before the teaching process.

In order to understand whether student attitude towards concepts changed after the teaching process, SSCCAS was reapplied to both control and experimental group after the teaching process as a post-test. Independent samples t-test was used to compare pre and post-test scores of students in experimental group (See Table 10) and students in control group (See Table 11).

Table 10.
The results of t-test according to pre and post- SSCCAS scores of students in experimental group

Group		N	x̄	s	t	df	p	Cohen's *d*
MAITAG	Pre-test	63	3.94	0.51	-3.671	62	0.001*	0.36
	Post-test	63	4.11	0.43				

*p<0.05

As shown in Table 10, a significant difference exists between Pre and Post-SSCCAS scores of students in experimental group (*t*(62)=3.671; *p*<.05). Students' attitudes towards social studies concepts measured after the implementation of teaching activities ($\bar{x}$=4.11; *s*=0.43) were significantly higher than their attitudes measured prior to teaching ($\bar{x}$=3.94; *s*=0.51). The effect size calculated as 0.36 indicates a medium effect size according to Cohen's (1988) classification.

Table 11.
The results of t-test according to pre and post-SSCCAS scores of students in control group

Group		N	x̄	s	t	df	p	Cohen's *d*
TTG	Pre-test	61	3.86	0.50	-2.087	60	0.041*	0.21
	Post-test	61	3.97	0.53				

*p<0.05

As shown in Table 11, a significant difference exists between Pre and Post-SSCCAS scores of students in control group (*t*(60)=2.087; *p*< .05). Students' attitudes towards social studies concepts measured after the teaching process (*x̄*=3.97; *s*=0.53) were significantly higher than their attitudes measured prior to the instruction (*x̄*=3.86; *s*=0.50). The effect size calculated as 0.21 indicates a medium effect size according to Cohen's (1988) classification.

Independent samples t-test was used to analyze whether there was any significant difference between post-SSCCAS scores of the students in control group and experimental group and the results are shown in Table 12.

Table 12.
The t-test results according to post-SSCCAS scores of the students in control and experimental group

	Group	N	x̄	s	t	df	p
Attitude Level	TTG	61	3.97	0.53	-1.668	122	0.098
	MAITAG	63	4.11	0.43			

It can be seen from the table above, the attitude scores of students in experimental group (*x̄*=4.11; *s*=0.43) are higher than the attitude scores of students in control group (*x̄*=3.97; *s*=0.53). However, there is no statistically significant difference between the attitude scores of students in experimental group and attitude scores of students in control group that are measured after the teaching process (*p*>0.05).

DISCUSSION AND CONCLUSION

The results of the study were discussed under three titles: metaconceptual understanding, delayed and attitude. Later, suggestions were also made for further research to be done on similar subject.

Results about Conceptual Understanding

One of the aims of the current study was to find out whether different teaching methods and teaching activities supported with metaconceptual processes have any effects on the conceptual understanding of students about law related concepts compared to the traditional teaching activities planned in social studies course curriculum. For this aim, in experimental group, teaching activities supported with metaconceptual processes were used whereas in control group, traditional teaching activities were used. According to results of the test carried out before the teaching process, no significant difference was found (*t*(121)=1.015, *p*>0.05). A possible explanation for this might be that there was no statistical difference in conceptual understanding of students before the teaching activities were implemented. It is possible that both control and experimental group students understood the concepts in the same way. When the conceptual understanding of the students in experimental group was analyzed before and after the implementation of the activities, a significant difference was found between pre and post-test scores (*t*(57)=-3.729, *p*<0.05, *d*= 0.65). The effect size value (Cohen's *d*=0,65) was a great effect size (Cohen, 1988). Considering the result of this three-phased test applied to the students, the teaching activities supported with metaconceptual processes were effective in changing the students' alternative concepts about law related concepts to scientifically accepted ones. This result was consistent with the results of

169

the studies carried out by Özsoy (2007), Yıldız (2008) and Ezberci (2014). Kırbulut, et al. (2016) implied that metaconceptual activities were essential to make conceptual changes.

On the other hand, no significant difference was found between the means of the pre and post-test scores of students in the group where traditional instruction was implemented (t(55)=-0.925, p>0.05). It shows that the teaching activities carried out in traditional instruction were not effective in changing students' alternative concepts about law related concepts to scientifically accepted ones. This result was also consistent with the results of the studies carried out by Özsoy (2007) and Yıldız (2008). According to the results of the post-test that was applied to both control and experimental group, a statistically significant difference was found in the scores of students trained with teaching activities supported with metaconceptual processes compared to the scores of students trained with traditional instruction (t(112)=3.525, p<0.05, d= 0.66). The effect size value (Cohen's d=0.66) was the great effect size (Cohen, 1988). This result is likely to be related to the activation of the students' metaconceptual processes by using different teaching activities. This is because these activities made more contributions to students' structuring law related concepts accurately compared to the traditional activities. The scientific content included the same subjects in both groups. There were other studies showing that when the activities activating metaconceptual processes were compared with traditional instruction, the students trained with these activities were more successful in conceptual understanding (Ezberci, 2014; Hennessey, 1991; Kırbulut, 2012; Mason, 2001; Nwankwo, Achufusi, & Offiah, 2019; Özsoy, 2007; Saçkes, 2010; Yıldız, 2008; Yürük, 2005; Yürük, Beeth, & Andersen, 2009). Moreover, the conceptual understanding of the students about law related concepts in classrooms where teaching activities were supported with metaconceptual processes was significantly higher than the students' conceptual understanding in classrooms where traditional instruction was carried out. It seems possible that these results are due to the metaconceptual processes that were involved in teaching activities about law related concepts. Vosniadou (2003) stated that the students who were metaconceptually aware of the changes in their ideas were less fragile and sensitive towards learning. Through this study, students in the experimental groups not only realized both their previous and current ideas about law related concepts in social studies course but also, they had the chance to monitor the change in their ideas. During the group and classroom discussions, how an idea worked better in explaining the given cases than the others was understood by the students. Yürük (2005) stated that the students who monitored the changes in their ideas used and kept the scientifically correct ideas for a longer time. In other words, the effects resulting from resistance to changes in alternative ideas about law related concepts were restricted. This study also enabled students to comment on the validity and limitations of the conflicting concepts while they were explaining the law related concepts during metaconceptual evaluation. By this way, students attempted to take the responsibility of their learning. Starting from basic forms of evaluation, students learnt how to justify their judgmental decisions as correct (Yürük, Selvi, & Yakışan, 2017). Metaconceptual teaching activities were organized to facilitate student participation in the classrooms where metacognitive processes were activated. While designing the metaconceptual teaching activities, the teacher did not carry out ordinary teaching activities. The process was two-dimensional. It gave responsibility both to the teacher and the students. In addition, it made students to try to think about the particular concepts. The nature of metaconceptual processes provides motivation for students to structure the concepts that they cannot construct in their minds and that are appropriate to scientific knowledge (Yürük et al., 2009). At this point, it can be said that in classrooms where traditional instruction is used, the teacher organizes lesson without considering the previous knowledge of students. On the other hand, in classrooms where metaconceptual processes are integrated into teaching activities it seems that these activities facilitate thinking and participation of students.

Results about Delayed

Fourteen weeks after the post-test, the conceptual understanding of students about law related concepts in experimental group and control group were measured again and a statistically significant difference was found between the groups (t(118)=5.294, p<0.05, d= 0.97). Compared to control group, the mean of LRCUT scores of the students in experimental group where metaconceptual processes were integrated were statistically higher. The value showing the difference was very close to 0 and a possible explanation

170

for this might be that the possibility of finding this difference by chance was very low. The effect size, which was found as 0.97, was a great effect (Cohen, 1988). Another result was that this effect size value was greater than the effect size calculated just after the teaching process. This possibly means that the students in experimental group where metaconceptual activities were carried out kept their scientifically accepted thoughts that they constructed just after the teaching period and internalized them. In other words, at the end of the metaconceptual activities especially the students who were successful in metaconceptual monitoring learnt to use the alternative concepts that existed in their previous knowledge within the appropriate context during the process. In addition, it is possible to say that the students joined in metaconceptual activities tend to have correct ideas, as their recalling of the alternative concepts are restricted. It was seen that the students in the group of traditional instruction had more alternative law related concepts considering their delayed test scores. On the other hand, when the delayed test was carried out, the study group were on the 8th grade and the concepts in the first subjects of 8th grade Ataturk's Principles and Reforms History Course were similar to the ones acquired during the study. Therefore, the study group associated the concepts on the 8th grade Ataturk's Principles and Reforms History Course with the ones they learnt during the study. This might be because law related abstract concepts are learnt better in time. Moreover, 8th grade students were getting prepared for high school entrance exam, and they solved scanning and recall tests in order to review what they learnt during the summer holiday and used techniques that support learning. All these might be possible reasons for the significant difference between control and experimental group's delayed test results.

Results about Attitude

No significant difference was found between experimental group and control group according to the attitude scores of students about the concepts acquired in social studies course before the implementation of teaching activities ($t(122)=-0.881$, $p>0.05$). This result showed that the attitude of the students in both groups towards the concepts in social studies course were equal to each other before the teaching process. The results of the study carried out by Ezberci (2014) were consistent with this result of the study.

In order to determine whether the attitude scores of the students in experimental group changed after the teaching activities, an independent samples t-test was applied. A significant difference was found between pre and post-SSCCAS ($t(62)=-3.671$, $p<0.05$, $d=0.36$). The value showing the difference was very close to 0. It can be said that the possibility of finding out this significant difference by chance was very low. The result showed that attitudes of the students was positive when they joined the teaching activities that activated metaconceptual processes. Another data source was the evaluation form given to the students to express their thoughts after all the activities were carried out. The sentences of some students are given here: Tuana said, "I look forward to social studies course because I have fun during the activities" and Ferhat said, "I liked the lesson with the help of the activities and could understand it better". Likewise, Tuğçe said, "The activities helped us learn the concepts better" and Arda said, "I understood the lesson better and benefitted from the activities so much". When the effect size of the difference between the students' pre and post-attitude scores in experimental group was analyzed ($d=0.36$), it was seen to be in the average size (Cohen, 1988). A possible explanation for this effect size value is that activities supported with metaconceptual processes caused almost 36% of difference between the means of students' pre and post-SSCCAS scores. In other words, the result corresponded to the average effect size over the experimental group students' pre and post-SSCCAS mean scores when metaconceptual processes were activated.

A statistically significant difference was found between the attitude scores of the students in the control group before and after the teaching period ($t(60)=-2.087$, $p<0.05$, $d=0.21$). Post-test mean scores were higher than pre-test mean scores. When the effect size of the difference between the control group students' pre and post attitude scores was analyzed ($d=0.21$), it was seen to be in the average size (Cohen, 1988). This effect size value may be explained by almost 21% of the change in the control group students' pre and post-SSCCAS mean scores because of the traditional instruction. In other words, this result corresponded to an average effect size over the control group students' pre and post-SSCCAS

mean scores when traditional instruction was used. This difference might be because of the fact that the teacher integrated his teaching experiences into the teaching activities. In addition, the students' positive attitude towards the teacher affected their attitude towards the concepts in social studies course in a positive way.

Statistically no significant difference was found between the attitude scores of students in control and experimental group after the teaching activities implemented ($t(122)=-1.668$, $p>0.05$). Considering that different teaching methods were applied, the attitude scores of students in experimental group where metaconceptual processes were activated were higher than the attitude scores of the students in control group. The students in experimental group realized that their previous knowledge was invalid; monitored the changes in previous and current knowledge and evaluated these changes through expressing their ideas by giving reasons. All these activities gave particular responsibilities to the students. Although they complained about expressing opinions during the metaconceptual processes of the activities, they did not reflect these complaints on their answers for attitude scale. This situation and the result that post-test attitude scores of the students in experimental group were higher than the attitude scores of students in control group could be attributed to the positive effects of the study. However, in order to find a statistically significant difference between the groups according to attitude scores, a long-term application of metaconceptual activities needs to be carried out. According to the results of current study, the following suggestions can be made for further research:

Further research might investigate epistemological beliefs and ontological assumptions using different alternative concepts supported with metaconceptual processes.
The quality of the metaconceptual processes can be analyzed in terms of the concepts used in different learning domains and disciplines of social studies course. In addition, studies that support motivation and self-sufficiency should be carried out.
Present study analyzed the effectiveness of metaconceptual activities on students. Further research can be carried out with different samples of teachers or teacher candidates.
Longitudinal studies can be carried out by starting the process of concept teaching from families of students and going on with all grade-levels.
The activities supported with metaconceptual processes can be transformed into multimedia applications with the contribution of technology including different disciplines and the effectiveness of them can be measured.
It can be remembered that metacognitive teaching activities impose a number of obligations on both teachers and students. Students can be motivated to express their thoughts in writing.
In teaching activities supported by metaconceptual processes, the process between post-test and delayed test can be better managed.
In order to implement the elements contained in the nature of metaconceptual processes, a social learning environment in which students can follow their own ideas and other ideas and reveal the information in their minds can be created.

Acknowledgements

172

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173

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174

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TÜRKÇE GENİŞLETİLMİŞ ÖZET

Öğrenciler, öğrenme ortamına bilim insanlarının ortaya koydukları kavramlardan farklı alternatif kavramlarla gelmektedir (Duit, Treagust, & Widodo, 2008). Bu duruma sosyal bilgilerin içerdiği soyut kavramlar da eklendiğinde, süreç bir derece daha güçleşmektedir. Bu noktada öğrencilerin alternatif kavramları değiştirmelerini sağlayacak üstbilişsel faaliyetleri aktif hale getiren etkinliklerin sınıf içinde kullanılması önem kazanmaktadır. Bu öneme vurgu yapan pek çok araştırmacı bulunmaktadır (Cheng, 2012; Delgado, 2015; Demir, 2010; Georghiades, 2004; Hennessey, 1991; Kırbulut, 2012; Kırbulut, Uzuntiryaki-Kondakçı, & Beeth, 2016; Kun, 2011; Mason, 2001; Nwankwo, Achufusi, & Offiah, 2019; Saçkes & Trundle, 2016; Thorley, 1990; Vosniadou, 1994; Vosniadou, 2003; Yıldız, 2008; Yürük, 2007; Yürük et al., 2009; Yürük & Eroğlu, 2016). Yürük (2005) kavram temelli gerçekleştirilen üstbilişsel faaliyetleri 'üstkavramsal' olarak ifade etmiştir. Bir diğer tanıma göre, üstkavramsal düşünme üstbilişin daha geniş bir kategorisidir (Huang, 2011). Üstkavramsal faaliyetler; üstkavramsal farkındalık, üstkavramsal izleme ve üstkavramsal değerlendirme olarak üç kategoriye ayrılmıştır (Yürük, 2005).

Bu çalışmanın amacı, üstkavramsal faaliyetleri aktif hale getirici etkinliklerin geleneksel öğretimle kıyaslanarak 7. sınıf öğrencilerinin sosyal bilgiler dersindeki hukuk konularına ilişkin kavramsal anlamalarına ve sosyal bilgiler dersindeki kavramlara ilişkin tutumlarına etkisini araştırmaktır.

Araştırmada yarı deneysel yaklaşım kullanılmıştır. Thyer'e göre (2012) yarı-deneysel çalışmalar, gerçekleştirilen müdahalelerin mümkün etkilerinin ilk görüntülerinin sağlanması noktasında oldukça güvenli sonuçlara ulaşabilmektedir. Bu çalışmada seçkisiz olmayan örnekleme yöntemlerinden uygun/elverişli örneklem kullanılmıştır. Bu doğrultuda araştırma, bir sosyal bilgiler öğretmeninin derslerini yürüttüğü dört sınıfta uygulanmıştır. Çalışma grubu, deney grubu 58, kontrol grubu 56 olmak üzere toplam 114 yedinci sınıf öğrencisinden oluşmaktadır.

Araştırmanın yürütüldüğü öğrencilere öğretim uygulamasına başlanmadan önce, tamamlandıktan hemen sonra ve tamamlandıktan 14 hafta sonra araştırmacı tarafından geliştirilen sosyal bilgilerdeki hukuk konularıyla ilgili üç aşamalı, çoktan seçmeli bir kavramsal anlama testi olan 'Hukukla İlintili Kavramsal Anlama Testi (HİKAT)' uygulanmıştır. Ayrıca, deney ve kontrol grubundaki öğrencilerin sosyal bilgiler dersinde öğrendikleri kavramlara ilişkin tutum puanlarını belirlemek amacıyla geliştirilen Sosyal Bilgiler Dersinde Öğrenilen Kavramlarla İlgili Tutum Ölçeği (SBKTÖ) öğretim öncesinde ve sonrasında ön test, son test olarak deney ve kontrol gruplarına uygulanmıştır. Belirtilen test ve ölçekler eş zamanlı olarak tüm gruplara uygulanmıştır. Araştırmada gruplar arasındaki karşılaştırmalar yapılırken t-testi kullanılmıştır. Bunun yanı sıra, araştırma kapsamında gerçekleştirilen uygulamaların etki büyüklüğünü belirlemek amacıyla Cohen's *d* katsayısı hesaplanmıştır.

Deney grubunda öğrencilerin üstkavramsal faaliyetlerini aktif hale getirmek için çeşitli öğretim etkinlikleri (poster çizimi, günlük yazımı, kavram haritaları, kavram karikatürleri ve kartları, sınıf ve grup tartışması) sürece dâhil edilmiştir. Kontrol grubunda ise ağırlıklı olarak kullanılan öğretim etkinlikleri ders kitabından metinlerin okutulması ve anlaşılmayan noktaların öğretmene sorulması şeklindedir. Ayrıca ünite sonu değerlendirme sorularının öğrencilerle birlikte cevaplanması da gerçekleştirilen bir diğer etkinliktir. Kontrol grubunda öğrencilere ilgili her üniteden sonra kısa özetlerin verildiği de belirlenmiştir.

Araştırmanın sonucuna göre, deney ve kontrol grubu öğrencilerinin ön test puanlarının istatistiksel olarak birbirine denk olduğu tespit edilmiştir. Öğretim sürecinden sonra ise üstkavramsal öğretim etkinliklerinin uygulandığı öğrenci grubunun, mevcut öğretimin uygulandığı gruptaki öğrencilere göre hukuk konusuyla ilgili kavramsal anlamalarının daha yüksek olduğu belirlenmiştir. Üstkavramsal faaliyetleri aktif hale getirici etkinliklerle derslerin işlendiği öğrencilerin ön ve son HİKAT puanları

177

arasında son test puanları lehine anlamlı farklılık saptanmıştır. Bu durum, farklı düzeyde üstkavramsal faaliyetlerin aktif hale geldiği gruptaki öğrencilerin hukukla ilintili alternatif kavramlarının oransal olarak azaldığını göstermektedir. Mevcut öğretim programı çerçevesinde derslerin yürütüldüğü kontrol grubundaki öğrencilerin ise, ön ve son HİKAT puanları arasında anlamlı bir farkın olmadığı saptanmıştır. Bu sonuç, mevcut öğretim programı çerçevesinde işlenen derslerin, öğrencilerin hukuk konularıyla ilgili alternatif kavramlarını gidermede etkili olmadığını göstermektedir. Çalışma grubundaki öğrencilerin kalıcılık HİKAT sonuçları, üstkavramsal süreçler kullanıldığında öğrencilerin hukuk konusuyla ilgili kavramsal anlamalarını 14 hafta süresince muhafaza ettiklerine işaret etmektedir. Bu sonuç, üstkavramsal süreçleri içeren kavramları öğrencilerin daha uzun sürede zihinlerinde yapılandırdıklarını ortaya koymaktadır. Ancak üstkavramsal faaliyetlerin aktif hale getirildiği gruptaki öğrenciler ile mevcut öğretim programının uygulandığı gruptaki öğrencilerin son test SBKTÖ puan ortalamaları arasında anlamlı bir farklılık bulunamamıştır. Burada ifade edilmesi gereken nokta üstkavramsal süreçlerin kullanıldığı gruptaki öğrencilerin son test SBKTÖ puan ortalamalarının mevcut öğretim programın uygulandığı gruptakilerin son test SBKTÖ puan ortalamalarından daha yüksek bulunmasıdır. Bu durum, öğrencilerin üstkavramsal faaliyetleri aktif hale getiren etkinlikleri uygularken hukuk kavramlarına ilişkin oluşturduğu iş yüküne rağmen ne kadar olumlu tutum geliştirdiklerinin göstergesidir. Buna ek olarak, her iki grubun öğrencilerinin ayrı ayrı ön ve son SBKTÖ tutum puanı ortalamaları arasında anlamlı bir farklılık bulunmuştur.

Genel olarak değerlendirildiğinde, üstkavramsal faaliyetleri aktif hale getiren öğretim etkinlikleriyle derslerin işlendiği öğrencilerin hukuk konularıyla ilgili kavramsal anlamalarının mevcut öğretim programıyla derslerin işlendiği öğrencilerin anlamaları ile kıyaslandığında anlamlı düzeyde daha yüksek olduğu görülmektedir. Elde edilen bu sonuç, alan yazında bulunan daha önceki araştırmaların sonuçlarınca desteklemektedir. Bunun yanı sıra, üstkavramsal süreçlerin kullanıldığı ve mevcut öğretim programının uygulandığı gruptaki öğrencilerin son test SBKTÖ puan ortalamaları arasında anlamlı bir farklılık bulunamamıştır. Ancak, uygulanan farklı öğretim yöntemleri dikkate alındığında üstkavramsal faaliyetlerin çeşitli düzeylerde aktif hale getirildiği gruptaki öğrencilerin, mevcut programın uygulandığı öğrencilere göre son testte daha yüksek tutum puanlı aldıkları belirlenmiştir. Bir başka deyişle, üstkavramsal faaliyetlerin zenginleştirildiği etkinliklerin kavramsal anlama ve tutuma olumlu etkisinin olduğu saptanmıştır.

Development of Internet literacy self-efficacy scale for pre-service teachers

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ABSTRACT | This study aims to develop the Internet Literacy Self-Efficacy Scale (ILSEF) that can be used to examine pre-service teachers' beliefs in their capabilities to perform recent web functionalities. The data was collected from eight different departments and all grade levels of the faculty of education at a state university in Turkey. Two different samples were used to develop and validate the instrument. The first and second samples consisted of 174 and 150 pre-service teachers, respectively. In an effort to explore the factorial structure, exploratory factor analysis was run with sample 1. A four-factor structure with 16 items was obtained: trustworthiness, creation, technical knowledge, and getting information. This structure accounted for 65.40% of the total variance. For structural model validation, the proposed model was evaluated with four alternative models. Construct validity was also checked by convergent and discriminant validity. In order to confirm the four-factor solution model of ILSEF, confirmatory factor analysis was performed with sample 2. Cronbach alpha internal consistency coefficients of each factor ranged from .91 to .72. The results provided some evidence that the scores obtained from the Internet Literacy Self-Efficacy Scale are valid and reliable in assessing pre-service teachers' self-efficacy beliefs in terms of the Internet use knowledge and skills.

Keywords: | Educational technology, Instrument development, Internet literacy, Pre-service teachers, Self-efficacy

Öğretmen adayları için İnternet okuryazarlığı özyeterlik ölçeğinin geliştirilmesi

ÖZ | Bu çalışma, öğretmen adaylarının güncel web işlevlerini kullanabilme yetenekleriyle ilgili inançlarını incelemek için kullanılabilecek İnternet Okuryazarlığı Özyeterlik Ölçeğini (ILSEF) geliştirmeyi amaçlamaktadır. Veriler, Türkiye'deki bir devlet üniversitesindeki eğitim fakültesinin sekiz farklı bölümünden ve tüm sınıf düzeylerinden toplanmıştır. Ölçeğin geliştirilmesi ve güvenirlik çalışmaları için iki farklı örneklem kullanılmıştır. Birinci örneklem 174 ve ikinci örneklem 150 öğretmen adayından oluşmaktadır. Faktöriyel yapıyı araştırmak için birinci örneklem ile açımlayıcı faktör analizi yapılmıştır. 16 maddelik dört faktörlü bir model elde edilmiştir: güvenilirlik, oluşturma, teknik bilgi ve bilgi alma. Bu model toplam varyansın %65,40'ını açıklamıştır. Yapısal model geçerliği için, önerilen model ile birlikte dört alternatif model değerlendirilmiştir. Yapı geçerliği ayrıca yakınsak ve ayırt edici geçerlik ile kontrol edilmiştir. ILSEF'in dört faktörlü çözüm modelini doğrulamak için ikinci örneklem ile doğrulayıcı faktör analizi yapılmıştır. Her bir faktör için Cronbach alfa iç tutarlılık katsayıları .91 ile .72 arasında değişmektedir. Sonuçlar, İnternet Okuryazarlığı Özyeterlik Ölçeğinden elde edilen puanların, öğretmen adaylarının İnternet kullanım bilgi ve becerilerine olan özyeterlik inançlarını değerlendirilmesinde geçerli ve güvenilir bir yapıda olduğunu ortaya koymuştur.

Anahtar Sözcükler: | Eğitim teknolojisi, İnternet okur-yazarlığı, Öğretmen eğitimi, Ölçek geliştirme, Özyeterlik

179

INTRODUCTION

The International Telecommunication Union (ITU) reported that four billion people had an Internet connection in 2016. According to this report, the number of Internet users is dramatically increasing year-by-year; and only in five years, the number of users has doubled. However, Internet access cannot be considered as simply switching on any device or just making a simple search in 'Google'; some skills and knowledge are needed to engage with online facilities (Livingstone, Bober, & Helsper, 2005). In the literature, these skills and knowledge requirements are defined by using several terms such as Internet literacy, media literacy, information literacy, digital literacy, and ICT literacy. All these terms serve similar purposes and focus on one common point, which is being able to use and utilize digital technology (e.g. Internet, computer or mobile technologies and information) effectively (Ferrari, 2012). As a broader term, media literacy includes both the Internet and mobile/ computing technologies. Hence, Internet literacy can more specifically be thought of as a component of media literacy. Livingstone et al. (2005) defined media literacy as "the ability to access, understand and create communications in a variety of forms" (p.6). The requirements of Internet literacy are similar to media literacy and have the following three dimensions: (1) Access, (2) Understanding, and (3) Creation.

The more web technologies have new features; the more skills are required. Thus, the importance of Internet literacy, more broadly media literacy, is increasing due to this rapid technological change. For instance, Web 1.0 tools differentiate from Web 2.0 tools in terms of allowing content change, content creation, and active participation (Kıyıcı, 2010). Therefore, the frame for Internet literacy has also been broader by these new functionalities. Undoubtedly, this rapid change in digital technologies influences educational systems. As Angela (2011) indicated, new media technologies enhance the source of information, and this offers new learning environments to teachers and students. Moreover, integration of technology into teaching has become a requirement in the information age (Young, 2015).

Self-Efficacy

Being one of the affective characteristics situated within the social cognitive theory, self-efficacy is defined by Bandura (1986) as "people's judgments of their capabilities to arrange and execute courses of action required to attain designated types of performance" (p. 391). Simply put, self-efficacy is people's beliefs about their abilities to successfully establish a given task or behavior required to reach a goal. While defining self-efficacy, it is also crucial to consider relevant self-evaluation constructs such as self-concept and self-esteem. At this point, it is essential to define similar self-evaluation constructs such as self-concept and self-esteem to avoid any misconception. Self-concept is defined by Rosenberg (1965) as "…the totality of the individual's thoughts and feelings having reference to himself as an object" (p. 7). Self-efficacy resembles self-concept in predicting people's thoughts, emotions, and actions (Bong & Skaalvik, 2003). However, the major difference is revealed in the target part. While efficacy judgments concern one's perception of his or her capabilities to accomplish a specific task or situation, self-concept represents one's perception of the self for a domain in general. For example, one's expectation of about 6 feet high-jump is an efficacy judgment (Bandura, 1986). On the other hand, being competent or not in high-jumping is a judgment of self-concept. The difference between self-efficacy and self-esteem is also discussed in the literature. Basically, self-esteem is defined as a person's general feelings of self-worth (Bong & Clark, 1999) and in fact, it is accepted as an effective component of self-concept. Both represent one's perception of the self. However, while self-esteem consists of more subjective perceptions rather than factual ones, self-concept includes all of these perceptions (Anderson & Bourke, 2000). Therefore, self-efficacy can be differentiated from self-concept and self-esteem as it is a more predictive and a rather task-specific construct (Bandura, 1986).

According to Bandura (1977), there are four major sources of self-efficacy: "performance accomplishment", "vicarious experience", "verbal persuasion", and "physiological states". Performance accomplishment is built on personal mastery experiences, which was emphasized as particularly influential by Bandura (1977). Individuals can enhance their self-efficacy beliefs through successful experiences whereas failures decrease their beliefs. Vicarious experience, as the second source of self-efficacy, is basically modeling other people's achievements. In other words, by observing other people's successful performances despite the difficulties they have, people may persuade themselves that they can also perform as well as them. However, the key requirement for this source is that the person should have a similar background. Otherwise, this observation will not have a significant effect on the self-efficacy belief. Verbal persuasion is the third source for strengthening self-efficacy beliefs. If a person is verbally persuaded by others about his or her capabilities in a realistic boundary, this may help to develop self-efficacy beliefs. However, verbal persuasion is not as effective as performance accomplishments and vicarious experience. The last source is the emotional and physiological state that can influence self-efficacy beliefs. A person who is depressed cannot judge his/her capabilities accurately because depressive mood dampens confidence. The physical situation, like extreme tiredness, also affects personal self-efficacy beliefs. Thus, the fourth way of changing perceived self-efficacy is to decrease people's level of stress, modify their negative emotional moods and alter their physical states in a positive way (Bandura, 1998). Although the influence of successful experiences is usually stronger than other sources, the effects of these sources may depend on the person and the particular situation (Zimmerman, 2000). Since self-efficacy affects the willingness of a person to attempt a task, it has an important effect on their choices, actions, and eventually their lives. People with high self-efficacy are eager to set difficult goals and they try to overcome obstacles they encounter rather than avoiding them. However, since people with low self-efficacy beliefs view the challenges as their personal deficiencies, they do not persist longer when they face negative outcomes. As stated in the study of McCoach, Gable, and Madura (2013), there is a causal relationship between self-efficacy and student academic variables such as academic achievement, academic motivation, occupational interests, and career choices.

Internet Literacy Self-Efficacy

Recently, the impact of technology use on learning and teaching has been an important research topic (Teo & Koh, 2010). Being a crucial individual trait, self-efficacy was included in many technologies' acceptance models (Aypay, Çelik, Aypay, & Sever, 2012; Moran, Hawkes, & Gayar, 2010; Teo, 2009; Wong, Teo, & Russo, 2012; Venkatesh & Davis, 1996; Vankatesh, Morris, Davis, & Davis, 2003). In most of these studies, self-efficacy was found as a strong predictor. Moreover, different types of self-efficacy such as computer self-efficacy, Internet self-efficacy, and web use self-efficacy in academic settings have been discussed by many researchers. One of them is the study of Tsai and Tsai (2003), which aimed to find the effect of self-efficacy beliefs on information learning strategies and learning. The results showed that students with low Internet self-efficacy had worse information searching strategies than those with high self-efficacy, and also high self-efficacy beliefs affected the students' learning in a positive way. In another study, Liaw, Huang, and Chen (2007) reported that the students' intention of using e-learning was predicted by perceived self-efficacy beliefs. Similarly, Wang, Ertmer, and Newby (2004) found that pre-service teachers' self-efficacy beliefs for technology integration were a strong predictor for examining patterns of classroom computer use. Joo, Bong, and Choi (2000) found that there was a significant relationship between Internet self-efficacy and academic motivation. In another study, Sang, Valcke, van Braak, and Tonderur (2010) reported that pre-service teachers having high computer self-efficacy showed more positive attitudes towards the educational use of computers than those with low self-efficacy. Kaya and Durmuş (2010) examined the relationship between pre-service teachers' perceived Internet self-efficacy and levels of Internet use of research. The results showed that Internet self-efficacy significantly differed according to the department, grade level, and frequency of Internet use. The same study also indicated that the seniors had a higher self-efficacy belief than other grade levels, and they also reported a positive relationship between the frequency of Internet use and Internet self-efficacy beliefs.

181

As mentioned above, several studies emphasize the importance of self-efficacy beliefs in educational technology use. However, the instrument used in most of these studies (Vankatesh, Morris, Davis, & Davis, 2003; Moran, Hawkes, & Gayar, 2010; Laver, George, Ratcliffe, & Croty, 2012; Joo, Bong, & Choi, 2010; Terzis, Anastasios, & Economides, 2011; Sun & Rueda, 2012) was Computer Self-Efficacy Scale developed by Compeau and Higgins (1995). The scale originally consisted of 11 items with a 10-point scale assessing software package use. Other studies modified this scale according to their purposes by selecting some specific items. More specifically, researchers adapted the scale by changing the word "software package" to the tool they used in their studies such as "tablet use", "new technology use", and "Internet use". Furthermore, all items were not used in the aforementioned studies, they rather selected and used four or five items among these 11 items. This indicates that the scale did not propose a comprehensive model due to having the single-factor structure. On the other hand, there are some studies in the literature, especially examining Internet self-efficacy beliefs. Some of them are as follows: Online Technologies Self-Efficacy Scale (OTSES) (Miltiadou & Yu, 2000), Internet Self-Efficacy (ISE) (Eastin & LaRose, 2000), Web Users Self-Efficacy Scale (WUSE) (Eachus & Cassidy, 2006), Use of Internet Self-Efficacy Beliefs Scale for Educational Purposes (Şahin, 2009) and Internet Self-Efficacy Research (ISS) (Kao & Tsai, 2009). Unlike the Computer Self-Efficacy Scale, they all have a multi-factor structure. Therefore, it can be said that Internet usage has been handled in many dimensions. However, web technologies are changing rapidly, and these scales may not be up to date since they may not include current web functionalities. Besides, these scales were developed for general users or students who were not specifically from the faculty of education. Therefore, this study aimed to develop a reliable and valid Internet self-efficacy scale for pre-service teachers in an educational environment, in which the current web functionalities will be considered.

METHODOLOGY

Instrument Development

The instrument was developed to measure Internet literacy self-efficacy beliefs of pre-service teachers. As the first step, the researcher developed an initial item pool of 27 items based on the Internet literacy literature (Lee, Chen, Li, & Lin, 2015; Kurbanoglu, 2003) and existing technology self-efficacy instruments (Kao, Wu, & Tsai, 2011; Tella, 2011; Kim, Glassman, Bartholomew, & Hur, 2013; Şad & Demir, 2015). The factors of the instrument were determined upon three dimensions of Internet literacy (Livingstone et al., 2005) as follows: (1) access, (2) understanding, and (3) creation. According to this approach, an essential requirement for being Internet literate is to be able to solve Internet access problems and get information effectively. In other words, when faced with some problems related to connection, they have to be able to figure out what these problems are and solve them. Moreover, they can reach the online content they desire. Internet literacy does not only require accessing information but also to be able to evaluate the information in terms of effectiveness and trustworthiness. Lastly, Internet literacy enables users to be producers and to create their content for several purposes. While developing the items and the factors of the instrument, five dimensions were proposed upon the aforementioned dimensions of Internet literacy: (1) Creation, (2) Get Information, (3) Trustworthiness, and (4) Technical Access, (5) Communication.

When deciding on a scale for self-efficacy beliefs, one should be careful about the degree of rating. As Bandura (1997, 2001) pointed out, one must avoid providing fewer options since it would be more difficult to differentiate the choices and cause lower reliability and sensitivity. Therefore, a 7-point rating scale ranging from *Not at all confident* (1) to *Extremely Confident* (7) was chosen for the developed instrument. For content validity, four experts from Computer Education and Instructional Technology and one expert from Curriculum and Instruction whose expertise was about measurement and evaluation in education revised the items. After revisions of the scale, *communication* factor with five items was

182

deleted because the experts pointed out that the items were low in complexity for the level of undergraduate students. For example, "sending an e-mail to my classmates and teachers." or "communicate via social media with classmates and teachers". Moreover, two items related to Learning Management Systems were removed because the selected university for data collection did not have a system with mentioned functionalities in the items (e.g., "I can upload documents on Learning Management Systems").

Cognitive interviews were done with three students (one of them was from computer education and instructional technology, two of them were from science education), which are important for detecting possible response errors and to find the reasons for these errors in the survey (Willis, 2004). According to these interviews, some items were revised to be more understandable, and also some were shortened to facilitate data collection. For instance; "While I am searching on the Internet, I feel confident about reaching the information that I am looking for." changed as "I can use Google search techniques effectively". Another item, "While I am looking for resources, I feel confident about how to use library databases." was revised as "I can use online library databases effectively". Moreover, two items from *trustworthiness* factor were deleted because of not being clear (e.g., I trust my strategies for evaluating the trustworthiness of the information shared on social media."). During these interviews, it was realized that example tools given in brackets may cause misunderstanding. The students responded to the item according to whether they used the exact example tool or not. To prevent this, "For instance" was added at the beginning of the examples to emphasize that the given tools are only examples and were not the only options and indeed alternative ones were also possible. Furthermore, some words needed explanations, such as "podcast". For some items, "…on the web" was added to highlight the activity was performed on the web. For example, "I can create presentation" can be understood as "create presentation on Microsoft PowerPoint". After all revisions, the scale resulted in 19 items with four dimensions as seen in Table 1.

Table 1.
The dimensions and sample items in the Internet literacy self-efficacy scale

Dimensions	Number of items	Items	Sample Item
Creation	6	i4, i7, i12, i14, i15, i19	I can create presentations on the web.
Get Information	6	i1, i2, i9, i10, i11, i18	I can use online library databases.
Trustworthiness	4	i3, i5, i13, i16	I can distinguish trustworthy websites.
Technical Knowledge	3	i6, i8, i17	I can solve hardware-related Internet connection problems.

During instrument development procedure, the researcher's experience about the educational use of technology in the doctoral study (Yasan-Ak, 2018) was also taken as a reference while developing the items and the factors of the instrument.

Participants

Sample 1

Sample 1 consisted of 174 pre-service teachers who were selected by nonrandom convenience sampling from a Turkish state university. Of 174 students, 98 were female (%56.3), 73 (%42.0) were male. While two students did not give a response to the gender item, one student indicated as "other". The students were from 8 different departments of the faculty of education. The distribution was as follows: the majority of the students (*n* = 64) was from Social Science Education (%36,8); 26 of them were from Early Childhood Education (%14.9); 22 of them were from Guidance and Psychological Counseling Program (%12.6); 22 of them were from Turkish Language Education (%12.6); 14 of them were from Science Education (%8.0); 10 of them Primary Education (%5.7); eight of them were from English Language Education (%4.6); and eight of them were from Elementary Mathematics Education (%4.6). All grade levels were included in the study: 28 of the sample were freshman students (%16.1), 27 of

them were sophomores (%15.5), 66 of them were juniors (%37.9), and 51 of them were seniors (%29.3). Two of them did not indicate their department information as seen in Table 2.

Table 2.
Distribution of the gender, departments, and study year

	Variables	*f*	*%*
Gender	Female	98	56.3
	Male	73	42.0
	Other	1	.6
	Missing	2	1.1
Departments	Social Science Education	64	36.8
	Science Education	14	8.0
	Psychological Counseling and Guidance	22	12.6
	Early Childhood Education	26	14.9
	Turkish Language Education	22	12.6
	Elementary Mathematics Education	8	4.6
	English Language Education	8	4.6
	Primary Education	10	5.7
Study Year	Freshman (1.)	28	16.1
	Sophomore (2.)	27	15.5
	Junior (3.)	66	37.9
	Senior (4.)	51	29.3
	Missing	2	1.1
TOTAL		174	100.0

Descriptive statistics of age, GPA, ICT course taken or not taken, course number, Internet use, ICT use level of instructors in courses, and ICT use level of students were revealed in Table 3. The mean age of participants was 20.97 ($SD = 1.99$) ranged between 18 and 31. The mean score of the participants' GPA was 3.14 ($SD = .37$). While the number of participants who have taken the ICT course was 149, and the remaining 23 participants have not taken any ICT courses. The number of courses the participants have taken ranged between 1 and 6 ($M = 1.87$, $SD = 0.95$). Internet use of the participants ranged from 0 to 15 hours ($M = 4.83$, $SD = 2.82$). Depend on the participants' evaluation, ICT use level of instructors in courses had a mean score of 6.46 out of 10 ($SD = 2.30$); and ICT use level of students while doing homework had a mean score of 8.30 out of 10 ($SD = 2.04$).

Table 3.
Descriptive statistics

Variable		M	SD	f	%
Age		20.97	1.99	-	-
	-	-	-	2	1.1
GPA		3.14	.37	-	-
	-	-	-	28	16.1
	-	-	-	19	10.9
ICT Course					
	Taken	-	-	-	-
	Not taken	-	-	149	85.6
	Missing	-	-	23	13.4
Course Number		1.87	.95	-	-
	Missing	-	-	2	1.1
Internet use (in hours)		4.83	2.82	-	-
	Missing	-	-	3	1.7
ICT use level of instructors in courses		6.46	2.30	-	-
	Missing	-	-	2	1.1
ICT use of level students in homework		8.30	2.04	-	-
	Missing	-	-	2	1.1

Sample 2

The second sample comprised of 150 pre-service teachers from different departments of education faculty at a public university in Turkey. All departments indicated in sample 1 were included in sample 2 as well. 8 of them were removed because students did not fill out the questionnaire properly. Out of 142 students, 94 were female (66.2%) and 48 were male students (33.8%). The age range was between 18 and 30 years old ($M = 20.89$, $SD = 1.74$).

Data Collection Procedure

Ethical approval was obtained for the relevant university from the Applied Ethics Research Center before data collection. The data were collected in the fall semester of 2017-2018 and the spring semester of 2018-2019. Since the scale measures technological ability, the researcher chose a hand-delivered questionnaire. The online survey may result in low internal validity. The survey took about 10 minutes to complete. Students participated in the study voluntarily and also informed about the confidentiality of their answers.

Data Analysis

The instrument had two main parts. While the first part was the developed scale, the second part of the instrument was the demographic information including gender, age, year of study, department, and GPA. The second part also included some technology use related questions as follows: the number of courses taken in the undergraduate programs, daily Internet use, ICT use level of instructors in courses, and ICT use level of students in homework. The descriptive analysis was presented with the frequencies, percentages, means, and standard deviations.

To develop a valid and reliable Internet literacy self-efficacy scale, two independent samples were used in the current study. Firstly, in order to explore the underlying constructs of the instrument, exploratory factor analysis (EFA) was conducted. Principal Axis Factoring extraction method with Oblimin rotation was used. Secondly, confirmatory factor analysis (CFA) was run to validate the factorial structure of the developed scale. Then, construct validity was also checked by two methods: (a) convergent validity, and (b) discriminant validity. Finally, sample 1 and sample 2 were used for the reliability analyses. Both results were reported, separately.

SPSS 20.0 was used to conduct descriptive and exploratory factor analyses whereas confirmatory factor analysis was performed by using AMOS 20.0 software.

RESULTS

Pilot Study

Exploratory factor analysis (a)

Before conducting exploratory factor analysis, missing data were examined in the data. Because of being less than 5% on a single variable, it was ignored based on the suggestion of Hair, Anderson, Tatham, and Black (2010). There are several methods to handle missing values such as deleting cases, single imputation, and multiple imputations (Kline, 2011). The researcher used multiple imputation methods, which is "the most respectable method to deal with missing data" (Tabachnick & Fidell, 2013, p. 72).

The sample size for conducting EFA was checked in two ways. Firstly, according to Hatcher (1994), 5:1 rule, means five cases for each item, or being above 100 cases was acceptable to run EFA. The rules were met for 19 items with 174 cases. Secondly, Kaiser-Meyer-Olkin (KMO) is an alternative way to check the adequacy of sample size (Field, 2009). Since KMO value (.84) was between .8 and .9, it was accepted as a great value for sampling adequacy according to Hutcheson and Sofroniou (1999, as cited in Field, 2009). As another assumption, univariate normality was checked by Skewness and Kurtosis values, Kolmogorov Smirnov and Shapiro Wilk tests, histograms, and Q-Q plots. Firstly, z scores of Skewness and Kurtosis were calculated and it was found that absolute values of z score less than 1.96. They were not significantly different from the null hypothesis at $p > .05$ (Field, 2009). Thus, the variables showed a normal distribution. Moreover, histograms and Q-Q plots were examined. It was not observed any serious concern to prevent normality. Lastly, Kolmogorov Smirnov and Shapiro Wilk tests were found significant at $p = .00$, which is an indicator of non-normal distribution (Field, 2009). However, it was concluded that the normality assumption was met based on Skewness and Kurtosis values, histogram and Q-Q plots. Multivariate normality was also checked through Mardia's test. It was found significant ($p = .00$), which means the multivariate normality was violated. Thus, Principal Axis Factoring (PAF) extraction method was used based on the suggestions of Fabrigar, Wegener, MacCallum, and Strahan (1999). On the other hand, the data were screened to detect outliers. Firstly, each item was converted to standardized z-scores. Any value exceeding absolute 3.29 would determine as an outlier (Tabachnick & Fidell, 2013), which was not observed in the data set. Moreover, box plots were examined. There were only a few dots fall away from the box. Thus, it can be said that there was not any univariate outlier. Yet, multivariate outliers were also checked to guarantee the absence of outliers. The Mahalanobis distance (D^2) and chi-square were calculated for each case. Nine (63., 73., 90., 105., 156., 112., 116., 135., and 153. cases) out 174 participants were detected as multivariate outliers with the critical value of 43.820 ($df = 19$, $p = .001$). They were removed from the data before conducting EFA. Lastly, the appropriateness of EFA was checked through correlation matrix and Barlett's test of sphericity. According to Tabachnick and Fidell (2009), if correlation coefficients are not above .30, there is no need to conduct EFA. After examining the correlation matrix, it was seen that many correlations which exceed this threshold. Moreover, Barlett's test of sphericity was found significant (χ^2 (171) = 1402.16, $p = .00$) at the .05 level, which indicates the presence of nonzero correlations. As indicated above, since multivariate normality assumption was not met, Principal Axis Factoring was chosen as an extraction method. Moreover, oblique rotation, more specifically direct oblimin was chosen as factor rotation because of the presence of correlated factors. (Preacher & McCallum, 2003).

In order to determine the number of factors, the screen test, Kaiser's eigenvalues, and Horn's parallel analysis were checked. When EFA was firstly run, the pattern matrix with 5 factors was observed. The rule of thumb for factor loadings is determined above .30 (Hair et al., 2010). As being one of the items of *Getting Information* factor, Item 2 was cross-loaded both on *Trustworthiness* (first) and *Creation* (second) factors in the first run. Thus, it was removed. After removing Item 2, EFA was run secondly. Item 1 was removed due to not loading any factor. After removing those 2 items, the EFA was conducted again with 17 items. Since Item 11 had low loading, it was removed as well. Finally, EFA was performed with 16 items. Item 9 was cross-loaded both on *Trustworthiness* and *Getting Information* factors. It was one of the items of *Getting Information* factor and loaded higher on that factor than *Trustworthiness*. Thus, Item 9 remained under *Getting Information* factor. As seen in Figure 1, an approximately horizontal line started at the fourth factor in the scree pilot, which indicated the presence of four factors.
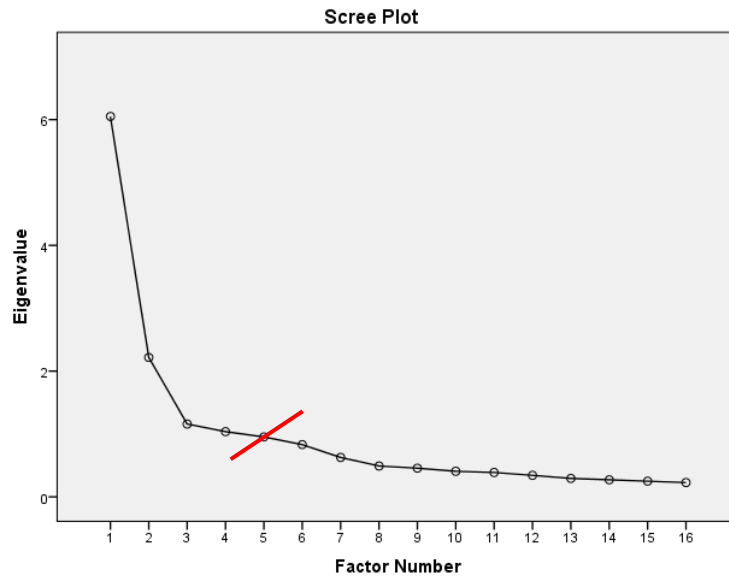
Figure 1. Scree plot of eigenvalues of factors in Internet literacy self-efficacy scale.

However, the scree plot is not enough for the interpretation of the numbers of factors since it depends on the researchers' judgments (Tabachnick & Fidell, 2009). Thus, Kaiser's eigenvalues were also examined to decide a reliable estimation of the number of factors. According to Tabachnick and Fidell (2009), eigenvalues less than 1 are not important for a variance. As seen in Table 4, there were four factors explaining 65.40% of the total variance in the study. Factor 1, 2, 3, and 4 accounted for 37.82, 13.86, 7.24, and 6.48 of the total variances, respectively. Furthermore, it was found that correlation among four factors from |.39| to |.59|, which indicates that the choice of using an oblique rotation method was proper.

Table 4.
Results of eigenvalues and extraction sums of squared loadings

Factor	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings	
		% of Variance	Cumulative %	% of Variance	Cumulative%
1	6.05	37.82	37.82	5.62	35.09
2	2.22	13.86	51.68	1.79	11.17
3	1.16	7.24	58.92	.78	4.84
4	1.04	6.48	65.40	.59	3.72
5	.95	5.96	71.36		
6	.83	5.19	76.55		
7	.63	3.92	80.47		
8	.49	3.07	83.54		
9	.46	2.85	86.39		
10	.41	2.54	88.93		
11	.39	2.42	91.36		
12	.34	2.14	93.49		
13	.29	1.83	95.33		
14	.27	1.70	97.02		
15	.25	1.56	98.58		
16	.23	1.42	100.00		

As seen in Table 5, four factors were obtained. Items 3, 5, 13 and 16 were loaded on Factor 1 labeled as *trustworthiness*; items 4, 7, 12, 14, 15 and 19 were loaded on Factor 2 labeled as *creation*; items 6, 8, and 17 were loaded on Factor 3 labeled as *technical knowledge*, and items 9, 10 and 18 were loaded on Factor 4 labeled as *getting information*.

187

Table 5.

Items and factor loadings from four-factor solution with oblimin-rotation: Eigenvalues and percentage of variance

		Factor			
		1	2	3	4
Trustworthiness	3. I can distinguish whether information on the web is subjective or scientific.	**.86**	-.05	.02	.03
	5. I can distinguish whether the source of information on the web is scientific or not.	**.75**	-.05	-.06	-.05
	13. I can distinguish trustworthy web sites.	**.68**	.07	-.06	.04
	16. I can distinguish whether information on the web is trustworthy.	**.61**	.06	-.11	-.15
Creation	4. I can create videos on the web.	.08	**.76**	.04	.19
	14. I can create posters or concept maps.	.05	**.76**	.01	.05
	19. I can create surveys.	-.14	**.69**	-.12	-.18
	12. I can create blogs.	-.05	**.58**	.00	-.20
	15. I can create presentations on the web.	.01	**.51**	.03	-.32
	7. I can create podcasts.	.05	**.50**	-.23	-.02
Technical Knowledge	8. I can solve software-related Internet access problems.	-.07	-.05	**-.87**	-.04
	6. I can solve other Internet access problems.	.12	.03	**-.76**	.04
	17. I can solve hardware-related Internet access problems.	.07	.04	**-.72**	.03
Getting Information	10. I can use online library databases.	.10	-.01	-.09	**-.75**
	18. I can use academic reference programs.	.11	.14	-.14	**-.34**
	9. I can use Google search techniques.	.31	.10	.02	**-.32**
	Eigenvalues	6.05	2.22	1.16	1.04
	% of Variance	37.82	13.86	7.24	6.48

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

Note. Factor loadings over .30 appear in bold.

Kaiser's eigenvalue-greater-than-one rule is accepted as the most popular method in practice. Moreover, it was also seen as a method which gives the number of factors that would most accurately reveal the relationships between the items (Büyüköztürk, 2007). However, this rule has been found to be problematic and inefficient in determining the number of factors by some researchers (Ladesma & Pedro, 2007). Thus, the parallel analysis (PA), which was accepted as the best alternative and appropriate method in various studies (Humphreys & Montanelli, 1975; Zwick & Velicer, 1986), was also performed. As seen in Table 6, the second column shows the Kaiser's eigenvalues and the last column shows the PA eigenvalues. Accordingly, Kaiser's eigenvalues of the first two factors were larger than the eigenvalues of PA, but not the third and the fourth factors. Thus, it was concluded that the number of factors was two based on the parallel analysis, and the other two factors were obtained by chance.

Table 6.
Results of parallel analysis

Factor	Kaiser's Eigenvalues	Mean of Eigenvalues	PA eigenvalues
1*	6.05	1.58	1.68
2*	2.22	1.45	1.53
3	1.16	1.35	1.42
4	1.04	1.27	1.32

Three methods used to determine the number of factors on the scale. While the screen test and Kaiser's eigenvalues proposed a four-factor structure model, a two-factor structure was obtained in the parallel analysis. In order to decide the number of factors, structural model validation was done. More specifically, five alternative models including two-factor measurement model and four-factor measurement model were tested. Then, to evaluate item – latent construct relationship, construct validity was examined by convergent and discriminant validity. Accordingly, the results showed that the number of factors to be retained was four. The detail was given below.

Structural model validation (b)

A measurement model refers to the linear or nonlinear statistical functions involving the relation between items and constructs to be measured (Yurdugül & Aşkar, 2008). In order to evaluate the proposed measurement model and alternative models, first-order confirmatory factor analyses were performed. The data consisted of 165 undergraduate students. In order to investigate factorial validity, five measurement models were used, which were given in the explanations below.

Model I indicated a 19-item with a unidimensional construct measurement model.

Model II indicated a two-factor measurement model as proposed in the parallel analysis. An exploratory factor analysis was run for obtaining a two-factor structure model. Principal Axis Factoring was selected as the extraction method. Only Item 2 was deleted because of being under .30 (Hair et al., 2010). While the first factor included 10 items, the second factor consisted of eight items.

Model III indicated a four-factor measurement model which was obtained in the present study. Principal Axis Factoring was selected as the extraction method. The model included 16 items, and the factors were as follows: *Trustworthiness, Creation, Technical Knowledge,* and *Getting Information.* In this model, the four latent factors were considered to be correlated.

Model IV indicated a four-factor measurement model which was obtained in the present study, where the latent factors were considered to be uncorrelated.

Model V (Empirical Measurement Model) indicated a four-factor measurement model which was obtained in the present study, and the factors were correlated. Differently, in order to improve model-fit, some error variances were allowed covarying in this model.

The following fit indices were chosen to compare alternative models: root mean square error of approximation (RMSEA), chi-square ($\chi 2$)/ df, comparative fit index (CFI), and non-normed fit index (NNFI). The model-data fits were computed for all of the measurement models, which were presented in Table 7. The table also shows the criteria for good-fit-indices with their references.

Table 7.
Good-of-fit indices and comparison of the measurement models

		RMSEA[a]	$\chi 2/df$[b]	CFI[c]	NNFI[c]
		<.10	<.3.0	≥.90	≥.90
Model I:	Unidimensional Model	.14	4.13	.63	.59
Model II:	Two-factor Structure	.11	3.12	.75	.78
Model III:	Four-factor Structure (Correlated)	.08	2.17	.90	.88
Model IV:	Four-factor Structure (Uncorrelated)	.13	-	.76	.73
Model V:	Four-factor Structure (correlated- covaried)	.08	1.86	.92	.90

References: [a]Brown and Cudeck (1993), [b]Hu and Bentler (1999), [c]Kline (2011)

Firstly, Model I was built, which was a unidimensional model with 19-item. According to the fit indices of the model, Model I showed a poor model fit. This can be interpreted as an indicator that the scale consisting of 19 items did not confirm the one-factor structure model, but it should have more than one sub-construct. Secondly, Model II was based on the two-factor structure model as the parallel analysis proposed, which included 18-items. Although an improvement was observed in the fit indices compared to Model I, it was not sufficient for a good model fit. This was also proof that the scale was not suitable for the two-factor structure model with 18-item. Thirdly, the present study proposed Model III, in which a four-factor structure (correlated) model was obtained from the pilot study. In this model, the number of items dropped from 19 to 16 items. Again, the fit indices showed an improvement, but an insufficient level. Similar to Model III, Model IV indicated a three-factor structure model obtained from the present study, but the latent factors were assumed to be uncorrelated. As seen in Table 7, a decline was observed

189

in the good-of-fit indices of the model. Finally, Model V was built, which was a four-factor measurement model with 16 items. The latent factors were correlated; and six error covariances (ε8-ε9, ε9-ε16, ε10-ε14, ε12-ε14, ε13-ε14, and ε14-ε15) were found highly relatively in the program output. Two experts from Computer Education and Instructional Technology examined the relevant items to decide covary. Firstly, four error covariances under *creation* factor were assessed. It was seen that item 7 "I can create podcasts." was related to other four items "creating blogs", "creating posters or concept maps", "creating surveys", and "creating presentations on the web". The experts allowed covarying in the model because all the tasks specified in the items are the functionalities of Web 2.0 technologies that enable students to create their own content and share it with other users (Greenhow, Robelia, & Hughes, 2009). Then, the other two covariances were under *getting information* factor was evaluated. Item 9 "I can use Google search techniques." was related to item 10 "I can use online library databases." and item 18 "I can use academic reference programs.". The experts pointed out that all these items are related to students' search skills which required technical knowledge. These skills are also considered as an essential 21st century skill because of enhancing productivity and quality of online life (Hill, Jensen, Read, & MacArthur, 2013). Thus, they allowed covarying in the model as well. According to the fit indices, Model V was found as the most appropriate among five measurement models. Consequently, it was continued with Model V based on these results in the current study. Figure 2 presented the factor loadings of a three- factor solution model (Model V). The abbreviations in the figure as follows: Trust: Trustworthiness, Creat: creation, TechKnow: Technical Knowledge, and Inform: Getting Information.
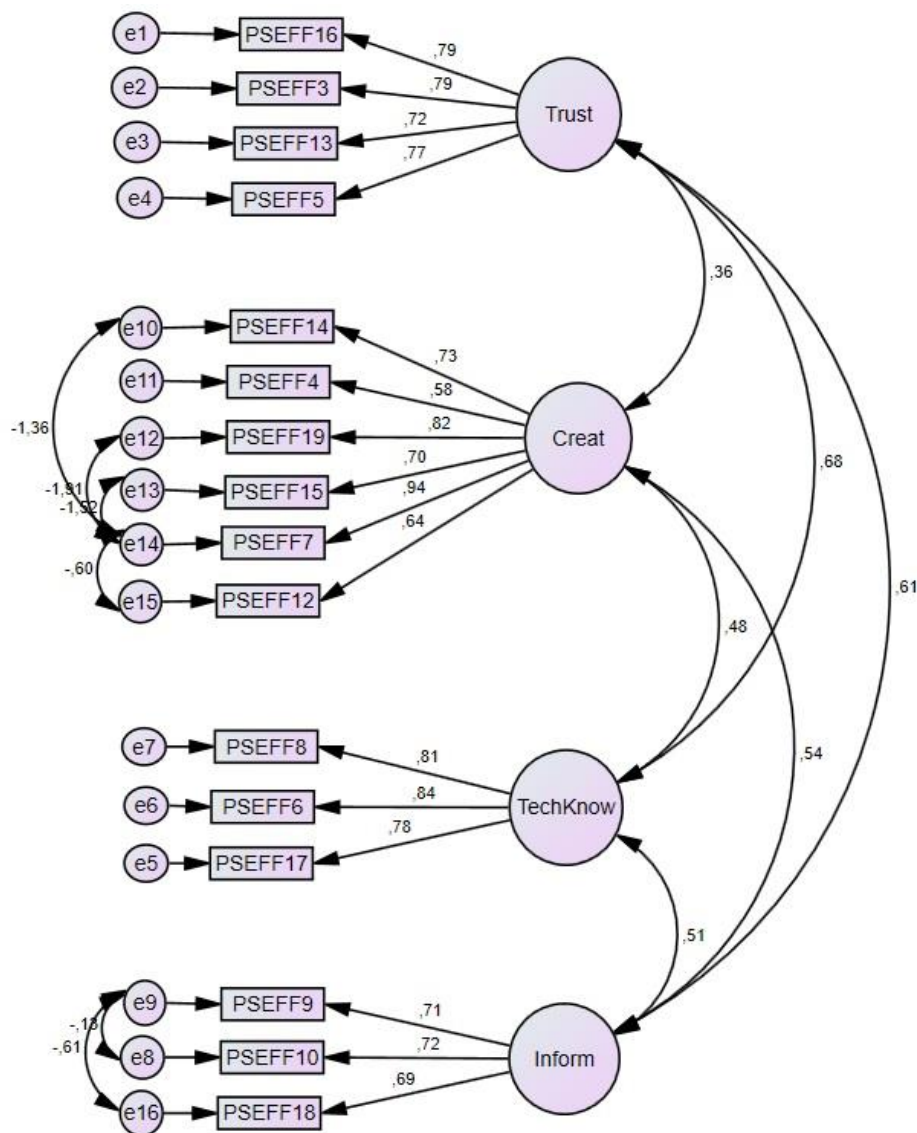

Figure 2. The measurement model (Model V)

Construct validity (c)

To evaluate construct validity, convergent validity and discriminant validity were also checked. Construct validity is defined as "the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure" (Hair et al., 2010, p. 618). Therefore, it is related to "*accuracy of measurement*". In the present study, construct validity was examined in two ways: (1) convergent validity, and (2) discriminant validity (Yurdugül & Sırakaya, 2013).

(1) Convergent validity of the measurement model was measured by using three ways. Firstly, the size of factor loadings was checked. As seen in Figure 1, the factor loadings were between .58 and .94, which met the rule that standardized factor loadings should be greater than .50 (Hair et al., 2010).

Secondly, the average variance extracted (AVE) was calculated by the calculator provided by Gouveia and Soares (2015), which were between .50 and .66. The rule of thumb for AVE is that .50 or higher suggest good validity (Hair et al., 2010). Thus, it can be concluded that the AVE values for each factor were acceptable. Lastly, composite (construct) reliability (CR) was calculated as an indicator of convergent validity. As seen in Table 8, CR values were obtained between .75 and .88, which were acceptable according to the rule of thumb greater .70 (Hair et al., 2010).

Table 8.
Convergent validity for the measurement model

	L Interval (a)	AVE (b)	CR (c)
Trustworthiness	.72 - .79	.60	.85
Creation	.58 - .94	.55	.88
Technical Knowledge	.78 - .84	.66	.85
Getting Information	.69 - .72	.50	.75

L: Factor Loadings, AVE: Average Variance Extracted, CR: Composite Reliability

(2) Discriminant Validity measures "how a construct is actually distinct from the other constructs" (Hair et al., 2010, p. 618). For this, the correlations among the subscales of the ILSEF and the square root of AVE were used. Accordingly, the square root of AVE calculated for each dimension must be greater than correlations coefficients between the corresponding sub-dimension and remaining sub-dimensions. These calculated values must be higher than .50 as well (Fornel & Larcker, 1981). For example, as seen in Table 9, the square root of AVE was calculated as .77 for *trustworthiness* dimension, which is higher than correlation coefficients between this sub-dimension and other sub-dimensions.

Table 9.
Discriminant validity for the measurement model

	(1)	(2)	(3)	(4)
Trustworthiness (1)	**(.77)**	-	-	-
Creation (2)	.36	**(.74)**	-	-
Technical Knowledge (3)	.68	.48	**(.81)**	-
Getting Information (4)	.61	.54	.51	**(.71)**

*The values in parentheses are the square roots of AVE

Reliability (d)

According to the results of factor analysis, Internet Literacy Self-Efficacy (ILSEF), proposed four constructs, namely, *trustworthiness*, *creation*, *technical knowledge* and *getting information*. For the reliability of the instrument, internal consistency reliability coefficients for each factor were computed. The Cronbach alpha coefficients of the factors are .89, .81, .83, and .65, respectively (See Table 10). The rule for acceptable reliability coefficients is determined above .70 (Field, 2009; Kline, 1999). However, as Nunnally (1967) stated that the reliability of .60 was sufficient even though this value was changed as .70 in the other study of Nunnally (1978). Some other scholars also pointed out that the coefficients ranging between .60 and .80 are "somewhat reliable" (Kalaycı, 2008; Akgul & Çevik, 2003;

191

Özdamar, 1997). Moreover, Peterson (1994) and Cortina (1993) stated that Cronbach alpha coefficients depend on the number of items. In other words, fewer items cause low reliability. Thus, it can be concluded that subscales had acceptable internal.

Table 10.
Item-total statistics of factors (N = 165)

		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha of Factors
Trustworthiness	i3	15.35	16.28	.72	.80	.85
	i5	15.47	16.37	.70	.81	
	i13	15.53	16.18	.65	.82	
	i16	15.69	15.97	.69	.81	
Creation	i4	21.88	54.33	.60	.82	.84
	i14	21.64	53.39	.65	.81	
	i19	21.79	53.96	.69	.80	
	i12	22.10	54.02	.62	.81	
	i15	21.23	54.93	.59	.82	
	i7	22.12	57.38	.56	.83	
Technical Knowledge	i8	9.03	10.30	.74	.77	.85
	i6	8.70	10.69	.72	.79	
	i17	8.85	10.56	.70	.81	
Getting Information	i10	8.75	6.31	.61	.29	.64
	i18	9.50	7.31	.39	.61	
	i9	7.95	8.04	.35	.66	

Validation Study

Confirmatory factor analysis (a)

In order to validate the four-factor solution model of Internet Literacy Self-Efficacy Scale, confirmatory factor analysis was run through AMOS 20.0 (Arbuckle & Wothke, 1999). For this analysis, Sample 2 was used. Before performing confirmatory factor analysis, the following assumptions were checked, separately: the absence of outliers, normality, and sample size (Tabachnick & Fidell, 2013). Firstly, both univariate and multivariate outliers were screened. For univariate outliers, standardized z-scores and box-plot were checked. Five cases were detected which exceeded the absolute value of 3.29 (Tabachnick & Fidell, 2013). Box-plot were also examined. There were a few points that fall away from the box, which was ignored. For multivariate outliers, Mahalanobis distance (D^2) was calculated for each case. Out of 137, nine cases were detected as multivariate outliers with the critical value of 39.252 (df = 16, p = .001). After omitting these cases, the analysis was performed again. Secondly, univariate normality was also checked. Kolmogorov-Smirnov and Shapiro-Wilk test results were found significant, which was a sign of non-normal distribution. However, these tests cannot be considered as only indicators for normality because of being very sensitive to sample size. Skewness and kurtosis values were also checked, which were between -3 and +3. The visual inspection of histogram and Q-Q plots were also observed, in which there was not any evidence for violation of normality. Thus, the univariate normality of the data was assured by skewness and kurtosis values, histogram, and Q-Q plots. Lastly, the adequacy of sample size was checked. According to Bentler and Chou (1987) and Bollen (1989), 5:1 or 10:1, means five or 10 cases for each item was acceptable to perform CFA. The rule was met for 16 items with 128 cases. To sum up, the preliminary analysis was proper for performing confirmatory factor analysis. Upon the recommendation of Tabachnick and Fidell (2013), the maximum likelihood (ML) was chosen as an estimation method for medium to large sample sizes and plausible assumptions. The following fit indices were selected to assess the goodness-of-fit of the model: Chi-square/*df*, comparative fit index (CFI), non-normed fit index (NNFI) or called as aka Tucker Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) (Jöreskog & Sörbom, 1993, Kline, 2011).

The second-order CFA resulted a significant chi-square, χ^2 (100, n = 128) = 217.83, p = .00, which indicated an unacceptable model. However, according to Tabachnick and Fidel (2013), chi-square is sensitive to sample size. Thus, other fit indices ($\chi2/df$ = 2.18, CFI = .89, NNFI = .87, RMSEA = 0.10, SRMR = .09) were examined. In the first run, the only fit index was $\chi2/df$ which showed a good-fitting model because of being under 3.0 (Hu & Bentler, 1999). CFI and NNFI values showed poor model fitting, which should be greater than .95 for a good model fit, and at least .90 for a moderate model fit (Tabachnick & Fidell, 2013; Jöreskog & Sörbom, 1993; Kline, 2011). In addition, RMSEA value greater than .10 indicates a poor-fitting model (Browne & Cudeck, 1993), which was at the limit in the model. Thus, CFA was performed again to modify the model. Before performing the CFA, modification indices were examined. Four error covariances ($\varepsilon2$-$\varepsilon4$, $\varepsilon5$-$\varepsilon7$, $\varepsilon5$-$\varepsilon9$, and $\varepsilon8$-$\varepsilon9$) were found highly relatively in the program output. Before covarying, the same two experts from Computer Education and Instructional Technology examined the relevant items. As in the previous CFA model, three error covariances were under *creation* factor. Related items that were creating podcasts, posters, surveys, and presentations; three of them were the same as in the previous model. As mentioned above, these items are Web 2.0 functionalities which allow the users to be a producer on the web. Thus, the experts allow then to covary in the model. Other covariance was under *trustworthiness* factor. Item 1 "I can distinguish whether information on the web is subjective or scientific." and item 3 "I can distinguish whether information on the web is trustworthy. The experts indicated that the words "scientific" and "trustworthy" might be understood in a similar way, thus allowing them to covary as well.

Table 11.
The model fit indices used for confirmatory factor analysis

Model Fit Index	Acceptable Fit		Sample Statistics	Decision	References*
	Moderate Fit	Good Fit			
χ^2 /df	<3.0 or <5.0		1.86	Acceptable	5
CFI	.90 - .95	.95 – 1.00	.92	Moderate	1, 2, 4
NNFI	.90 - .95	.95 – 1.00	.90	Moderate	1, 2, 4
SRMR	.05 - .08	≤ .05	.08	Moderate	3, 5
RMSEA	.05 - .08	≤ .05	.08	Moderate	3, 5

* References: [1]Tabachnick and Fidell (2013), [2]Jöreskog and Sörbom (1993), [3]Browne and Cudeck (1993), [4]Kline (2011), [5]Hu and Bentler (1999),

The results revealed a moderate fit model in the second run of confirmatory factor analysis. The fit indices of the model were as follows: CFI = .92, NNFI = .90, SRMR = .08 and RMSEA = .08. Chi-square was found significant despite of decreasing the value χ^2 (96, n = 128) = 179.03, p = .00. Since this value is sensitive to sample size (Tabachnick & Fidell 2007), other fit indices should be taken into consideration. $\chi2/df$ was found 1.86 which is an indicator of a moderate fitting model because of being under 3.0 or 5.0 (Hu & Bentler, 1999). CFI and NNFI values also indicated a moderate model fit, which were found between .90 and .95 (Tabachnick & Fidell, 2013; Jöreskog & Sörbom, 1993; Kline, 2011). In addition, RMSEA and SRMR values ranging between .05 and .08 showed moderate fitting model, which was found .08 in the study (Browne & Cudeck, 1993, Hu & Bentler, 1999). The model fit indices which selected for the current study were presented in Table 11. The references for each fit index were also indicated in the table.
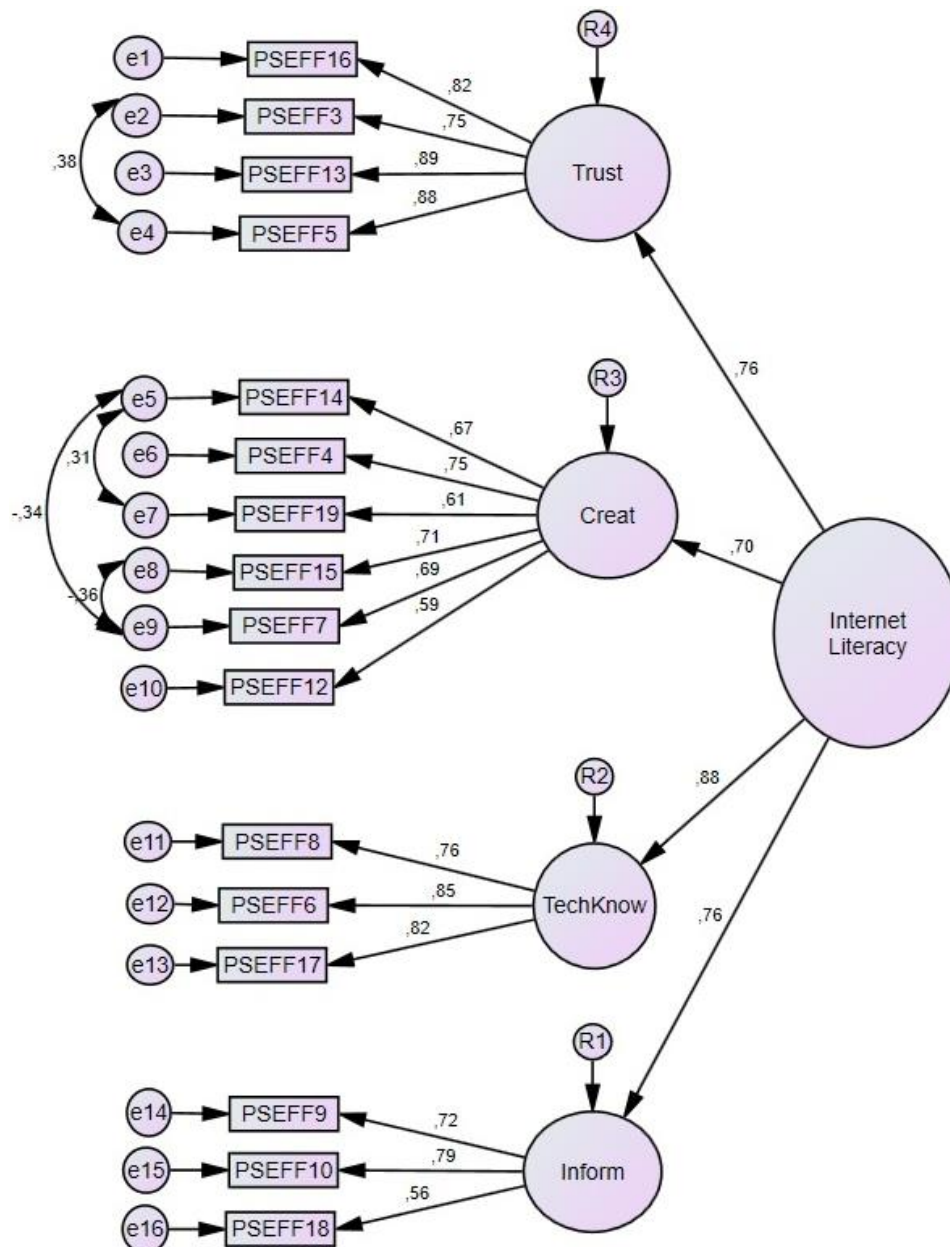
Figure 3. The factor structure of Internet literacy self-efficacy scale with standardized estimates

The proposed second-order factor model of Internet Literacy Self-Efficacy Scale was shown in Figure 3. The standardized factor loadings varied between .75 and .89 for *trustworthiness* factor, between .59 and .75 for *creation* factor, between .76 and .85 for *technical knowledge* factor, and between .56 and .79 for *getting information* factor. Thus, it can be concluded that all items had a significant contribution to the proposed model since the cut-off point of the standardized estimates of the items was above .40 (Stevens, 2002).

Reliability (b)

For internal consistency, Cronbach alpha coefficients were examined for each factor, which was found as .90 for *trustworthiness* factor (4-item), .80 for *creation* factor (6-item), .83 for *technical knowledge* factor (3-item), and .71 (3-item) for *getting information* factor. The rule for acceptable reliability coefficients is determined above .70 (Field, 2009; Kline, 1999). Thus, it can be concluded that subscales had acceptable internal. The coefficients for each item are displayed in Table 12.

Table 12.
Item-total statistics of factors (N = 128)

		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha of Factors
Trustworthiness	i3	15.36	18.44	.75	.90	
	i5	15.35	17.24	.87	.85	.91
	i13	15.33	17.58	.80	.88	
	i16	15.44	18.04	.75	.89	
Creation	i4	21.22	44.74	.68	.77	
	i14	21.11	46.32	.60	.79	
	i19	21.06	47.40	.63	.78	
	i12	21.05	48.80	.50	.81	.82
	i15	20.10	48.44	.60	.79	
	i7	21.44	49.22	.51	.81	
Technical Knowledge	i8	8.90	10.75	.69	.82	
	i17	8.55	10.96	.74	.77	.85
	i6	8.61	9.96	.74	.77	
Getting Information	i10	8.80	7.42	.65	.50	
	i18	9.45	8.36	.46	.73	.72
	i9	7.80	7.62	.53	.65	

Interpretation of Internet Literacy Self-Efficacy Scale (ILSEF) Scores

The Internet Literacy Self-Efficacy Scale (ILSEF) consists of 16 items. A 7-point Likert-type grading scale [*Extremely Confident* (7)➔*Not at all confident* (1)] was used on the scale. As seen in Table 13, the scale proposed four dimensions: creation (6-item), getting information (3-item), trustworthiness (4-item), and technical knowledge (3-item). Therefore, possible scores for each dimension ranging as follows: between 6 and 42 for *creation*; between 3 and 21 for *getting information*; between 4 and 28 for *trustworthiness*; and between 3 and 21 for *technical knowledge*. For the whole Internet self-efficacy scale, it ranges from 16 to 112.

Table 13.
The dimensions and items of Internet literacy self-efficacy scale

Dimensions	Number of items	Items
Creation	6	i11, i2, i16, i12, i5, i9
Getting Information	3	i7, i8, i15
Trustworthiness	4	i13, i1, i10, i3
Technical Knowledge	3	i4, i6, i14

While evaluating the ILSEF scores, the evaluation was made according to both the scores from the subscales and the total score of the scale. This means that besides the dimensions of the scale, the total score related to Internet self-efficacy can be obtained on the scale as well. If the pre-service teachers' scores from the subscales are high, their self-efficacy beliefs in the relevant dimensions are also high. Likewise, a high total score indicates that pre-service teachers' Internet literacy self-efficacy beliefs are high.

DISCUSSION AND CONCLUSION

The purpose of this study was to develop a valid and reliable scale measuring pre-service teachers' Internet literacy self-efficacy beliefs. The development procedure started with a 19-item draft scale reviewed by experts and students. A pilot study was conducted to determine the structure of the

195

measurement tool through exploratory factor analysis (EFA). In addition, structural model validation and construct validity (convergent and discriminant validity) were performed to decide the factor structure of the scale. Then, confirmatory factor analysis was run for validation of the structural model with a second sample. Lastly, internal consistency of the scores was examined for each factor to evaluate the reliability of the scale.

EFA results showed that the Internet Literacy Self-Efficacy Scale (ILSEF) proposed a four-factor structure with 16 items: trustworthiness (4-item), creation (6-item), technical knowledge (3-item), and getting information (3-item). While these four factors explained 65.40% of the total variance, factor 1, 2, 3, and 4 accounted for 37.82, 13.86, 7.24, and 6.48 of the total variances, respectively. The results of CFA demonstrated a moderate fitting model by checking the following fit indices: $\chi2/df$, CFI, NNFI, SRMR, and RMSEA. Cronbach alpha coefficients were examined for each factor, which was found as .91 for *trustworthiness* factor, .82 for *creation* factor, .85 for *technical knowledge*, and .72 for *getting information* factor. Being greater than .70, these values were acceptable (Nunally, 1978). To sum up, the results of the study showed that the scores obtained from the developed scale Internet Literacy Self-Efficacy (ILSEF) are valid and reliable for assessing pre-service teachers' Internet literacy self-efficacy.

The ILSEF was developed based on three dimensions of Internet literacy which are access, understanding, and creation (Livingstone et al., 2005). Accordingly, *getting information* and *technical knowledge* factors were related to the access dimension. To be Internet literate, the users should improve their skills in searching for information on the web. Using search engines effectively may be considered as a basic level of these skills, while using an online library database and academic reference programs are more advanced levels of them. Another skill in access dimension would be the ability to solve hardware and software Internet access problems for effectively reaching the desired information on the web. Thus, high scores obtained from the factors of *getting information* and *technical knowledge* on the scale mean that students have high self-efficacy beliefs in solving Internet access problems and searching for information on the web effectively. *Trustworthiness* factor is associated with the understanding dimension. There is lots of free information on the web. Although the users have abilities in searching for information, it is also essential that an Internet literate person is able to distinguish trustworthy information. This means that students with high scores from this factor have high self-efficacy beliefs in evaluating whether the information obtained on the web is trustworthy. The last dimension of Internet literacy is creation. It is one of the important functionalities of Web 2.0 technologies that allow the users to create their own content, which is also considered as *creation* factor on the scale. High scores obtained from this factor mean that students' self-efficacy beliefs in becoming a producer on the web are also high. As a result, the high total score of the students from the scale means that the Internet literacy self-efficacy beliefs are high in terms of all the dimensions mentioned.

In many studies, self-efficacy has been found as one of the potential factors that could affect technology use in the educational environment (Aypay et al., 2012; Oskay, 2011; Moran et. al., 2010; Teo, 2009; Tsai & Tsai, 2003). In most of these studies, Computer Self-Efficacy Scale (CSEA) (Compeau & Higgins, 1995) was used to measure self-efficacy beliefs. More specifically, this scale was included in technology acceptance models because of being a one-factor structure. Apart from the CSEA, the other instruments such as Online Technologies Self-Efficacy Scale (OTSES) (Miltiadou & Yu, 2000), Internet Self-Efficacy (ISE) (Eastin & LaRose, 2000), Web Users Self-Efficacy Scale (WUSE) (Eachus & Cassidy, 2006), Use of Internet Self-Efficacy Beliefs Scale for Educational Purposes (Şahin, 2009) and Internet Self-Efficacy Research (ISS) (Kao & Tsai, 2009) were also examined in the literature. However, none of these have met the needs in terms of measuring Internet literacy self-efficacy beliefs as they include only a few recent web functionalities. Moreover, the most important point is that all of the above-mentioned instruments were for general users or their focus groups were not the students from the faculty of education. Therefore, it was necessary to develop a scale that would provide a comprehensive perspective and up-to-date web functionalities for prospective teachers. In that regard, the present study will help fill this gap in the literature by developing a valid and reliable Internet Literacy Self-Efficacy Scale (ILSEF) for pre-service teachers (see Appendix1).

The developed scale ILSEF proposed a four-structure model: trustworthiness, creation, technical knowledge, and getting information. Since web technologies change rapidly, different factors should be added to the scale in future studies. Although the scores obtained on the scale were valid and reliable, there were some limitations related to the study. Firstly, the convenience sampling method was used for data collection. This method has some advantages such as being easy or less expensive to carry out, but it is not sufficient to identify target populations (Bornstein, Jager, & Putnick, 2013). In other words, the generalizability of the results was negatively affected. Moreover, to increase external validity, the instrument should be assessed with different populations. Thus, for further studies, data might be collected from different universities in different regions of Turkey.

Acknowledgements

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APPENDIX 1

Internet Literacy Self-Efficacy Scale for Pre-service Teachers (in English)

	Internet Literacy Self-Efficacy Scale for Pre-service Teachers *Please use the 1 – 7 scale provided (“Not at all confident” to “Extremely confident”) to rate how much you feel confident about being able to the given statements.*	(1) Not at all confident	(2)	(3)	(4) Neither confident nor unconfident	(5)	(6)	(7) Extremely confident
1	I can distinguish whether information on the web is subjective or scientific.							
2	I can create videos on the web (e.g. GoAnimate, Powtoon, etc.).							
3	I can distinguish whether information on the web is trustworthy.							
4	I can solve software-related Internet access problems.							
5	I can create podcasts.							
6	I can solve other Internet access problems.							
7	I can use Google search techniques.							
8	I can use online library databases.							
9	I can create blogs.							
10	I can distinguish trustworthy web sites.							
11	I can create posters or concept maps (e.g. Bubbl.us, Easel.ly, etc.).							
12	I can create presentations on the web (e.g. Prezzi, Slides, etc.).							
13	I can distinguish whether the source of information on the web is scientific or not.							
14	I can solve hardware-related Internet access problems.							
15	I can use academic reference programs (e.g. Mendeley, Evernote, etc.).							
16	I can create surveys (e.g. SurveyMonkey, Obsurvey, GoogleForms, etc.).							

TÜRKÇE GENİŞLETİLMİŞ ÖZET

Web teknolojileri yeni işlevler kazandıkça, bu teknolojileri kullanma becerilerini geliştirme gerekliliği de artmıştır. Bu nedenle, İnternet okuryazarlığı, daha geniş anlamda medya okuryazarlığının önemi günden güne önem kazanmaktadır. Kuşkusuz teknolojideki bu hızlı değişim eğitim sistemini de etkilemektedir. Angele'nın (2010) belirttiği gibi yeni medya teknolojilerin bilgi kaynağına olan erişimi arttırmasıyla öğretmen ve öğrenciler için yeni öğrenme ortamları oluşturmuş, böylece eğitimde teknoloji entegrasyonu bir ihtiyaç haline gelmiştir (Young, 2015).

Son zamanlarda teknoloji kullanımının öğrenmeye ve öğretmeye olan etkisi ve hangi değişkenlerin bu etkiyi yordadığı önemli bir araştırma konusudur (Teo & Koh, 2010). Bu anlamda, Sosyal Bilişsel Kuramın anahtar değişkenlerinden olan özyeterliğin birçok teknoloji kabul çalışmasında önemli bir değişken olarak ele alındığı görülmüştür (Aypay, Çelik, Aypay, & Sever, 2012; Moran, Hawkes, & Gayar, 2010; Teo, 2009; Wong, Teo, & Russo, 2012; Venkatesh & Davis, 1996; Vankatesh, Morris, Davis, & Davis, 2003). Böylece, birçok farklı teknoloji kullanımı için özyeterlik inançlarını ölçme ihtiyacı duyulmuştur. Bilgisayar kullanım özyeterliği, web kullanım özyeterliği, İnternet kullanım özyeterliği bunlardan birkaçı olarak sayılabilir.

Bu çalışmada amaçlanan öğretmen adaylarının İnternet okuryazarlık özyeterlik inançlarının değerlendirilmesi için geliştirilen Likert tipi bir ölçeğin geçerlik ve güvenirlik çalışmasını yapmaktır. Veriler, Türkiye'deki bir devlet üniversitesindeki eğitim fakültesinin 8 farklı bölümünden ve tüm sınıf düzeylerinden toplanmıştır. 174 ve 150 öğretmen adayından oluşan iki farklı çalışma grubu kullanılmıştır.

Ölçeğin geliştirilme süreci ilk olarak İnternet okuryazarlığı üzerine kapsamlı bir literatür taramasıyla başlanmıştır. Buna göre, araştırmacı tarafından 27 maddelik bir başlangıç madde havuzu oluşturulmuştur. İçerik uzmanlar tarafından incelenmiş ve ayrıca olası yanıt hatalarını kontrol etmek için öğrencilerle bilişsel görüşmeler yapılmıştır. Uzmanlardan ve öğrencilerden alınan geribildirimler ile gerekli değişiklikler yapılmış, 19 maddeden oluşan bir ölçekle veri toplamaya çıkılmıştır.

Veri toplamadan önce ilgili üniversite için Uygulamalı Etik Araştırma Merkezi'nden etik onay alınmıştır. Veriler 2017-2018 güz döneminde ve 2018-2019 bahar döneminde toplanmıştır. Araştırmacı, ölçek teknolojik kabiliyeti ölçtüğü için anket formlarını elden dağıtmıştır. Ölçeğin iç geçerliğini negatif yönde etkilemesinin önüne geçmek için çevrimiçi anketler tercih edilmemiştir. Anketin tamamlanması yaklaşık 10 dakika sürmüştür. Öğrenciler çalışmaya gönüllü olarak katılmış ve yanıtlarının gizliliği hakkında bilgilendirilmişlerdir.

Öğrencilere dağıtılan anket iki ana bölümden oluşmaktadır. İlk bölüm geliştirilen ölçek iken, demografik bilgiler (cinsiyet, yaş, eğitim yılı, bölüm ve genel not ortalaması) anketin ikinci bölümünden toplanmıştır. Bu bölüm aynı zamanda teknoloji kullanımıyla ilgili bazı soruları da içermektedir. Bu sorular şöyledir: Lisans programlarında alınan ders sayısı, günlük İnternet kullanımı, derslerde BİT kullanım düzeyi ve ödevdeki öğrencilerin BİT kullanım düzeyi. Betimsel analiz sıklıklar, yüzdeler, ortalamalar ve standart sapmalar ile sunulmuştur.

İnternet Okuryazarlığı Özyeterlik Ölçeğinin güvenirlik ve geçerlik çalışmaları için çeşitli istatistiksel analizler yapılmıştır. İlk olarak ölçeğin faktör yapısını keşfetmek için Açımlayıcı Faktör Analizi (AFA) çalıştırılmıştır. Bu analizde Oblimin rotasyonlu Principal Axis Factoring (PAF) ekstraksiyon yöntemi kullanıldı. İkinci olarak ölçeğin faktör yapısını doğrulamak için Doğrulayıcı Faktör Analizi (DFA) yapılmıştır. Daha sonra, ölçeğin yapı geçerliliği yakınsak geçerlik ve ayırıcı geçerlik olmak üzere iki yöntemle de kontrol edilmiştir. Son olarak, ölçeğin güvenirlik analizleri farklı iki örneklem kullanılarak

202

test edilmiştir. SPSS 20.0 açımlayıcı faktör analizi ve betimsel analiz için kullanılırken, doğrulayıcı faktör analizi AMOS 20.0 yazılımı kullanılarak yapılmıştır.

İstatistiksel analizlere başlamadan önce, verilerde herhangi bir kayıp veri ya da yanlış veri girişimi olup olmadığı incelenmek üzere taranmıştır. Ayrıca çalışmada kullanılan örneklem sayısının AFA ve DFA gerçekleştirebilmek için yeterli olup olmadığı da çeşitli analizlerle test edilmiştir. Sonuç olarak örneklemin AFA ve DFA çalıştırmak için uygun olduğu tespit edilmiştir.

Açımlayıcı faktör analizi ilk çalıştırıldığı zaman beş faktörlü bir yapı oluşmuştur. Ancak bu yapıda bazı maddelerin yük değerlerinin .30'un altında kaldığı, bazılarının birden fazla faktöre yük verdiği görülmüştür. Uygun olmayan üç maddenin ölçekten çıkarılmasıyla analiz 16 maddeyle tekrarlanmış ve 4 faktörlü bir yapı elde edilmiştir. Bu 16 maddeli dört faktörlü yapı ölçeğin toplam varyansın %65,40'ını açıklamaktadır. Her bir faktörün modele olan katkısı ayrı ayrı incelendiğinde ise Güvenilirlik olarak isimlendirilen birinci faktör toplam varyansın %37,82'sini; ikinci faktör olan Oluşturma %13,86'sını, Teknik Bilgi olan üçüncü faktör %7.24'ünü ve dördüncü faktör olan Bilgi Edinme ise toplam varyansın %6.48'ini açıkladığı görülmüştür. Ölçeğin faktör sayısı scree plot ve Kaiser'in özdeğerleri dışında, paralel analiz yapılarak da tespit edilmeye çalışılmıştır. Paralel analiz sonuçları scree plot ve eigen değerleri sonuçlarından farklı olarak iki faktörlü bir yapı modeli sunmuştur. Faktör yapısını netleştirmek için alternatif modeller sunularak yapısal model geçerlilik test edilmiştir. Tek faktörlü, iki faktörlü, dört faktörlü (ilişkili), dört faktörlü (ilişkisiz) ve en son olarak dört faktörlü (ilişkili ve modifikasyonlu) model olmak üzere beş farklı model sunulmuştur. Bunların arasında beşinci modelin AFA sonucunun önerdiği dört-faktörlü (ilişkili ve modifikasyonlu) modelin en iyi uyum indeksi gösterdiği görülmüştür. Ayrıca ölçekteki maddelerin önerilen modeldeki dört faktörü ne ölçüde yansıttığını tespit etmek için yapı geçerliği test edilmiştir (Yurdugül & Sırakaya, 2013). Bunun için yakınsak geçerlik ve ayırt edici geçerlik yöntemleri kullanılmıştır. Analiz sonuçlarına göre geliştirilen ölçeğin yapı geçerliğinde herhangi bir problem olmadığı görülmüştür. Bütün bu analizler ölçeğin 16 maddeli dört faktörlü bir yapıyı desteklediğini ortaya koymuştur.

İnternet Okuryazarlığı Öz-Yeterlik Ölçeğinin dört faktörlü çözüm modelini doğrulamak için ikinci örneklem kullanılarak ikinci mertebe doğrulayıcı faktör analizi (DFA) yapılmıştır (Arbuckle & Wothke, 1999). DFA analize uygunluğu ön analizlerle tespit edilmiştir. Modelin uyumunu değerlendirmek için, $\chi2/df$, karşılaştırmalı uyum indeksi (CFI), normlaştırılmamış uyum indeksi (NNFI) veya Tucker Lewis indeksi (TLI), kök ortalama kare yaklaşık hatası (RMSEA) ve standardize edilmiş kök ortalama kare hatası (SRMR) (Jöreskog & Sörbom, 1993, Kline, 2011) rapor edilmiştir. Buna göre, model veri uyumunun orta düzeyde olduğunu görülmüştür. Bunun dışında, ölçeğin standartlaştırılmış faktör yükleri .56 ile .85 arasında bulunmuştur. Maddelerin standartlaştırılmış tahminlerinin kesme noktası 0.40'ın üzerinde olduğu düşünülürse tüm maddelerin önerilen modele önemli bir katkı sağladığı sonucuna varılabilir (Stevens, 2002). Ayrıca her bir faktör için iç tutarlılık güvenirlik katsayıları hesaplanmıştır. *Güvenilirlik*, *Oluşturma*, *Teknik Bilgi* ve *Bilgi Alma* faktörlerinin Cronbach alfa katsayıları sırasıyla .91, .82, .85 ve .72'dir. Kabul edilebilir güvenilirlik katsayıları için kural .70 olduğuna göre ölçeğin güvenilir olduğu anlaşılmıştır (Field, 2009; Kline, 1999).

Özetle, yapılan bu çalışmada İnternet Okuryazarlığı Özyeterlik Ölçeğinden elde edilen puanların öğretmen adaylarının İnternet okuryazarlığı özyeterliklerinin değerlendirilmesinde geçerli ve güvenilir bir yapıda olduğu ortaya konmuştur. ILSEF puanları değerlendirilirken değerlendirme hem alt ölçeklerden alınan puanlarla hem de ölçeğin toplam puanına göre yapılmıştır. Yani, öğretmen adaylarının alt ölçeklerden aldıkları puanlar yüksekse, ilgili boyutlardaki öz-yeterlik inançları da yüksektir. Benzer şekilde, ölçekten alınan toplam puanın yüksek olması öğretmen adaylarının İnternet okuryazarlığı öz-yeterlik inançlarının yüksek olduğunu göstermektedir.

EK 1

Öğretmen Adayları İçin İnternet Okuryazarlığı Özyeterlik Ölçeği (Türkçe)

	Öğretmen Adayları İçin İnternet Okuryazarlığı Özyeterlik Ölçeği *Verilen ifadeleri yapabilme konusunda kendinize ne kadar güvendiğinizi 1 (Kendime Hiç Güvenmiyorum) – 7 (Kendime Çok Güveniyorum) arasında derecelendiriniz.*	(1) Kendime Hiç Güvenmiyorum	(2)	(3)	(4) Ne Güveniyorum Ne Güvenmiyorum	(5)	(6)	(7) Kendime Çok Güveniyorum
1	Web sitelerinde bilimsel bilgiyle yanlı bilgiyi ayırt edebilirim.							
2	Web üzerinden video oluşturabilirim (Örnek: GoAnimate, Powtoon...vb.).							
3	Web sitelerindeki bilginin güvenilir olup olmadığının ayrımını yapabilirim.							
4	Yazılımsal İnternet erişim problemlerini çözebilirim (Örnek: Ağ ayarları, bağlantı hızının yavaşlaması...vb.).							
5	Podcast oluşturabilirim (İnternette yayınlamak amacıyla ses ve video dosyaları oluşturma).							
6	İnternet'i kullanırken oluşan diğer problemleri çözebilirim (Örnek: Flash Player yükleme, virüslü sayfalara yönlendirme...vb. ile ilgili problemler).							
7	Google arama tekniklerini etkili kullanabilirim (ve-veya bağlaçlarını kullanma, sözcüğü tırnak içine alma...vb.).							
8	Web üzerinden kütüphane veri tabanlarını etkili kullanabilirim.							
9	Blog oluşturabilirim (Kendi oluşturduğum Web günlüğü sayfasına yazma).							
10	Güvenilir web sitelerini ayırt edebilirim.							
11	Poster, kavram haritası oluşturabilirim (Örnek: Bubbl.us, Easel.ly...vb.).							
12	Web üzerinden sunum hazırlayabilirim (Örnek: Prezzi, Slides...vb.).							
13	Web sitelerindeki bilginin bilimsel kaynaktan olup olmadığını ayırt edebilirim.							
14	Donanımsal İnternet erişim problemlerini çözebilirim (Örnek: Modem, kablo...vb. ile ilgili problemler.).							
15	Akademik referans ve not alma bilişim araçlarını kullanabilirim (Örnek: Mendeley, EverNote...vb.).							
16	Anket hazırlayabilirim (Örnek: SurveyMonkey, Obsurvey, GoogleForms...vb.).							