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FROM THE EDITOR

Dear Distinguished Researchers and Readers,

We are here with the third issue of 2021. In this issue, you will find 10 research articles of 18 authors from different disciplines. We hope that these articles published in the second issue of 2021 will contribute to the literature. Also, we will continue to show accepted manuscripts in OnlineFirst soon.

As you remember, we made some changes in the aim and scope of our journal, and we analyze the quality of articles at the very first step of the submission. These criteria enforced us to select top quality articles for the review process. Unfortunately, we rejected 60 articles from April 2021 to July 2021 to be able to pick up the best ones for reviewing.

These criteria are expected to increase quality but decrease reviewing length. For this issue, the average time from submission to acceptance was 4 months, and the average time from submission to publication was 6.1 months. This six-month process is even shorter due to our OnlineFirst system in which we publish articles earlier than its normal issue.

Finally, we should also express our sincere thanks to the Editorial Board, reviewers and authors for their invaluable contributions. We will publish the reviewers' names in the last issue of the year.

We look forward to receiving submissions of sufficient rigor and quality. We wish you good health and hope to meet again for the 2021 October issue!

<div style="text-align:right">

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The Effects of Authentic and Interactive Video Tasks on Students' Extra Listening Practices

Özgün ve Etkileşimli Video Alıştırmalarının Öğrencilerin Dinleme Uygulamaları Üzerindeki Etkileri

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ABSTRACT: The primary goal of this study is to examine the effects of authentic and interactive video tasks on English as a Foreign Language (EFL) learners' listening practices, perceptions (interest and enjoyment level) regarding using multimedia learning in improving their listening skills. The study involved students from the preparatory school of a university in Turkey. A pre-test and a post-test were given to the students to analyze the effects of authentic and interactive video tasks. The students were asked to reflect on their authentic and interactive video task experience. After the implementation, a questionnaire and interviews were applied to understand the students' overall perceptions regarding the multimedia learning experience. The results of the study show that authentic and interactive video tasks created a positive effect on students' listening practices and influenced their perceptions (interest and enjoyment level) positively. The study results show that the participants found watching these videos out of the classroom appealing and helpful in improving their listening skills.

Keywords: Interactive videos, multimedia, listening skills.

ÖZ: Bu çalışmanın temel amacı, özgün ve etkileşimli video alıştırmalarının üniversite hazırlık programındaki öğrencilerin dinleme uygulamaları ve algıları üzerindeki etkilerini çoklu ortam öğrenimi ve özgünlük açısından incelemektir. Çalışma Türkiye'deki bir üniversitenin hazırlık okulunda öğrenim gören öğrencileri kapsamaktadır. Bu video alıştırmalarının etkilerini araştırmak için öğrencilere ön-test ve son-test uygulanmışır. Bu videolar, araştırmacı tarafından yedi hafta boyunca öğrencilere alıştırma olarak verilmiştir ve her video sonunda öğrencilerden özgün ve etkileşimli video deneyimleri ile ilgili görüşlerini belirtmeleri istenmiştir. Uygulamadan sonra, Çoklu Ortam Teorisi ışığında uyarlanmış, öğrencilerin ilgi seviyelerini ölçmek için bir anket uygulanmıştır. Nitel verilerin toplanması için öğrenciler ile yarı yapılandırılmış görüşmeler yapılmıştır. Çalışmanın sonuçları, Çoklu Ortam Kuramı ışığında hazırlanan ve belirli öğrenme ilkeleri ile desteklenen özgün etkileşimli video alıştırmalarının, öğrencilerin dinleme uygulamaları üzerinde olumlu bir etki yarattığını göstermektedir. Çalışma sonuçları aynı zamanda ders temalarıyla uyumlu videolar izlemenin öğrencilerin görüşlerini olumlu bir şekilde etkilediğini göstermektedir. Öğrencilerin çoğu, bu videoları ilgi çekici ve yararlı bulduklarını ifade etmişlerdir.

Anahtar kelimeler: Etkileşimli videolar, çoklu ortam, dinleme becerileri.

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Educational technology includes many beneficial tools and resources such as electronic books (Embong et al., 2014), videos, artificial intelligence, augmented and virtual reality applications (Gonzalez, 2017), and so on. With their visual, auditory and interactivity features, videos are among the most popular technology tools in language education. Using videos in language classes is an emerging research topic with interactivity features embedded in videos because ordinary video platforms may not provide learners to get involved in the content of the video (Agarwala et al., 2012). Authentic and interactive videos have been accepted as a valuable resource for language learning because they offer communicative contexts in which learners may feel reality and enhance communication skills (Rammal, 2005; Stempleski & Arcario, 1992; Stigler et al., 2015). Moreover, according to Kilickaya and Krajka (2010), those multimedia resources provide language learning environments by increasing students' autonomy level and motivation with various learning strategies such as activating students' visual and auditory senses and creating a more entertaining and promoting language learning environment (Kayaoğlu et al., 2011).

Throughout education history, teachers have been inclined to use traditional ways of teaching. This approach needs just the existence of students and teachers in a classroom. However, in today's world, digital technology creates an intense influence on education and how it should be applied regarding future generation's expectations (Salavati, 2013). Film and videos have been used as influential classroom instruction components since 1950 (Marchionini, 2003). Mathew and Alidmat (2013) highlighted that video materials play a positive role in understanding lessons by learners. In this sense, this study explores the effects of authentic and interactive videos on students' listening practices and perceptions in terms of mainly multimedia learning, authenticity and interactivity.

Videos in Language Learning

Videos are the functional materials that motivate students to increase their academic success if used appropriately according to the instruction process's goals (Thorpe, 2008). With the drastic improvement of technology, videos are widely used in education as they enhance teaching activities (Clark, 2013). Heinich et al. (2002) explained the roles of videos in education as follows:

(a) videos present a concrete referent for ideas;

(b) they draw students' attention by activating emotions;

(c) they make the challenging issues more understandable for learners by simplifying information;

(d) they give opportunities to be understood spoken and written verbal information through visuals (p. 112).

Furthermore, White et al. (2000) indicate that videos are beneficial for students as they help students comprehend complex concepts that are hard to define verbally. In addition, videos are valuable learning materials for learners because they help them enhance themselves in many ways. For example, they contribute to students' learning experiences by increasing their motivational level and enabling them to develop their creative thinking skills (Harmer, 2007). In another research, the role of digital videos in language acquisition was investigated through seven hypotheses and the researcher

stated that digital videos played a significant role in the process of creating a friendly learning environment (Tschirner, 2001).

Multimedia and Language Learning

Multimedia Learning firstly has been explained by Mayer (2009) and it has been directly grounded on the principle that states "people can learn more deeply from words and pictures than from words alone" (p. 47). Therefore, messages delivered by the teacher for instructional purposes should be designed according to the way our mind works and also, they should be congruent with the way we learn (Mayer, 2009). Through the developments of multimedia learning, studies have been inclined to search for the effects of multimedia tools on learning and it has been reported in different studies that video materials including both audio and visuals support second language learning. (Silverman, 2013). For instance, Ni (2017) conducted a study with university students to examine the effects of English listening teaching assisted by computer multimedia. The researcher used questionnaires to learn students' opinions about the use of multimedia in improving listening comprehension skills. The researcher found out that the vision feature in the videos assisted students to understand the context better. Moreover, the students found the presentation of information coming from textbooks boring when it was compared to multimedia learning. They addressed that the video materials used in the research were more interesting than traditional materials, which provided more active language learning opportunities to the students.

On the other hand, the researcher (Ni, 2017) pointed out that video materials were not suitable for some students who had weak self-control ability, as their attention was split. Studies carried out in multimedia contexts have generally used short videos (Markham & Peter, 2003; Montero Perez et al., 2014) or videos designed for language learning overall (Chung, 1999). However, research efforts have been going on to figure out the ways to improve language learning through interactive videos. Although interactive videos have been in use for a long time, they have not received much interest in instructional settings (Clothier, 2013). According to Mayer (2000), multimedia design principles and the visual items are used for decorative purposes by educators, not for instructional purposes. Moreover, the number of research focusing on the implications of multimedia learning design principles is not enough in the educational video context, although it has been proved that applying them is beneficial for students' learning process (Mayer et al., 1999).

To support multimedia instruction, the videos used in this research were chosen to provide authentic and interactive materials for students to use as authentic videos have many advantages for students, such as serving rich cultural content, presenting real language, and meeting learners' needs (Richards, 2001). In this context, regarding Multimedia Learning, authentic and interactive video tasks may offer opportunities for students to practice their listening skills and also motivate them to listen to authentic resources to internalize the language learning process within the framework. This study describes how authentic and interactive video tasks grounded by Multimedia Learning Theory affect EFL students' listening practices, perceptions, and intentions. The study may also present practical research findings based on the integration of authentic and interactive video tasks to English Language teachers that employ the video in their classrooms successfully. The study addresses the following research questions:

1. Do authentic and interactive video tasks have any effect on students' extra listening practices in English?

2. How students view the use of authentic and interactive video tasks for extra listening practices in English?

Method

Research Design

In this study, the researcher used mixed method research (MMR) design which means "collecting, analyzing, and interpreting both qualitative and quantitative data about the main facts in a single study" (Creswell & Clark, 2007). In order to answer the research questions, the researcher did not use only one source of data collection because using one source of data resource may not be helpful to obtain reliable and valid results. Lincoln et al. (2011) stated that the use of mixed method strategies can considerably increase the research's understandability. In this research, the researcher studied with a single class. Within the scope of this research, the role of authentic and interactive video tasks and their effects on students' listening practices and perceptions (beliefs and intentions) were investigated.

Participants and Setting

The study sample consisted of 15 students (eight male-seven female) who study at the English preparatory school of a university in İstanbul, Turkey. Students' ages ranged from 18 to 23. Five of them were international students from predominantly Arab countries such as Qatar, Saudi Arabia and Morocco. The rest of the class consisted of Turkish students. The study took place in the third module of the four-module English program in the university's preparatory year. Students' proficiency level in English is B1-Intermediate. The proficiency level was identified by a reliable and valid placement test conducted by the Testing & Assessment Unit of the University. However, to ensure the study requirements regarding reliability and validity, a standardized Cambridge PET listening test was conducted again as a pre-test. Based on the participants' exam scores (including placement test and pre-test) before the implementation, it was concluded that both Turkish and Arab students had some difficulties in listening.

The school had a population including more than 750 students. The preparatory school had a modular system consisting of four language levels (1. Elementary 2. Pre-Intermediate 3. Intermediate 4. Upper-Intermediate). When the students enrolled in the preparatory program, they had a placement test including four main skills in English: listening, reading, writing and speaking. After the placement test, they were randomly assigned to their classes regarding their levels in English. The students whose levels were above B1 level took the proficiency test to be eligible to meet the preparatory school requirements and continued their education in their departments. These placement and proficiency tests were prepared and conducted by the Testing & Assessment Unit of the school. Three professional subject matter experts managed all of the exam processes in this unit. The videos prepared by the researcher were not used during the lessons because of the reasons which were related to school regulations such as pacing plan or curriculum that are supposed to be followed. Therefore, they were

assigned to students to work on their own to practice their listening skills and learn their opinions on the use of authentic and interactive videos.

Procedures

The study was implemented for nine weeks in total at the same class chosen for this research. Prior to the implementation process, the students were given a short tutorial by the researcher to introduce the online tool (Edpuzzle) that they used during this process. The students explored the tool with the help of the instructor in a 40 minutes-class hour and did not experience any technical problems while using the web tool. Before the implementation process, students' listening skills were tested with a standardized Cambridge PET test consisting of 12 questions as well as the placement test conducted at the beginning of the module. After conducting the pre-test, the authentic-interactive videos were prepared aligned with seven units of the course-book used in face-to-face classes. The students were sent weekly authentic and interactive videos prepared by the researcher on the web tool. The students could view all of the videos on their own Edpuzzle accounts. In the fourth and ninth week, no videos were sent to the students as they were the exam weeks. The videos were taken by the Edpuzzle database, which was open-source, including many authentic videos. The videos were adapted through different types of questions such as true/false, multiple-choice or open-ended were selected by the researcher to make them interactive. The questions embedded within the video were prepared regarding different listening skills, such as guessing the word's meaning or listening for specific details that might help the learners during the course. The students watched the authentic interactive videos, answered the embedded questions and commented about their experiences. The researcher followed the students' process and their reactions to these authentic and interactive video tasks every week. After the students watched the last video, they were asked to take the post-test. A Likert-scale perceptions questionnaire combining different themes of the study (multimedia learning, authenticity and interest/enjoyment level) was implemented. Following the questionnaire, twelve interviews based on the students' opinions were conducted by the researcher.

Data Collection

Firstly, quantitative data was collected to interpret students' listening performances before the implementation process. In the following phase, qualitative data was collected to answer the second research question successfully. The students' performances on these videos were evaluated weekly via the online platform used to provide the videos. In the next phase, the students' opinions on the use of authentic and interactive videos for extra listening practices were collected through the open-ended questions asked at the end of each video task. Finally, to obtain students' perceptions about the use of these videos, semi-structured interviews consisting of seven questions were conducted with twelve participants.

Instruments

Pretest & Postest

The pre-test aimed to measure the participants' listening competency in EFL before implementing authentic and interactive video tasks in the course and to ensure

the test-retest reliability in the research. The test taken from the Cambridge PET-Listening part consisted of two sections with twelve questions and students were expected to complete the test in 20 minutes. Also, this test was examined and validated by two English instructors from the university setting. The same items and structures were used in the post-test test to explore whether participants' listening performances changed after the implementation process. The answers of the tests and students' performances were not announced in the process.

Students' Performances & Grades

The interactive video platform, Edpuzzle was used in this research to provide authentic and interactive video tasks to students. The authentic videos assigned to the students were taken from open sources such as Youtube, Khan Academy or National Geographic provided by Edpuzzle database. By using this platform, the teachers may crop the video that they choose, record their voices, add clarifications and embed quizzes along the video to check students' comprehension of the video by changing the authentic video to an interactive video. Additionally, the platform had a grading system to track students' learning performances within seconds easily. Teachers can see the class performance, grade and individual student performance out of 100 points and make comments on each performance to give more personalized feedback to students. Teachers can also learn how much time students spend on the video and how many questions students answered correctly. In this sense, the researcher benefited from all features of this platform to learn students' performances on the authentic and interactive videos.

Students' Comments at the End of the Videos

Using this interactive video platform, teachers may have a chance to give written feedback to their students at the end of each video. Moreover, at the end of each video, students can give written feedback about their opinions or comments. The researcher benefited from this feature of the platform and asked students to write about their experiences on watching authentic interactive videos. After the students explained their opinions at the end of the videos, the researcher graded students' performances on the authentic and interactive videos, gathered and saved the data consisting of students' comments to the question such as "How was your authentic-interactive video experience? How did you feel at the end of this video?" were asked.

Interviews

The questions used for the interview were prepared by the researcher and a subject matter expert. The students were interviewed separately by the researcher, their responses were voice recorded and the researcher transcribed students' responses verbatim on a laptop computer. Each item in the semi-structured interview questions focuses on three main sections of the research questions: (1) Multimedia Learning Theory (2) Authenticity and (3) Perceptions. The researcher directed the questions in the interview according to the participants' answers. In this sense, below were the examples of the primary questions included in the interview:

  1) What do you think about your experience of watching the authentic interactive videos?

2) How do you think watching interactive videos influenced your listening skills?

3) Were there any motivational factors of watching interactive videos for our listening class? Do you think that they motivated you or not? Please explain.

Activities that Students Did during the Tasks

According to Brown (2001), listening strategies should be taught to students who are in the process of acquiring a new language because these strategies are helpful for them to understand the listening text better. The students who participated in this study were taught these strategies since the beginning of the academic year and during the class hours to improve their listening skills. Students were asked questions requiring different listening strategies in the authentic and interactive videos. The researcher used listening comprehension questions to measure student's understanding. If comprehension questions are asked properly, they improve students' higher-order thinking skills and critical thinking skills. (Egbert et al., 2009).

Listening for specific details. This strategy requires students to focus on details and pay closer attention to the listening text. Students were asked questions to find the important details in the videos, such as dates, people or places. For example, a multiple-choice question was asked in the first video related to Thai traditions: *How often do rings need to be refitted?*

Listening to make inferences. Inference questions were used in the videos that students watch the authentic-interactive videos and can make inference to find out what a concept literally means in the related context. For instance, students were asked to infer the meaning of the target vocabulary in the video about Thailand traditions: *What does "fled to" (past form of flee) mean?*

Using nonverbal cues. As the videos were used in this research, the students were exposed to non-verbal cues and they could understand the context of the video better with the help of visuals, gestures and facial expressions of people in the videos. To give an example, *"Do you think that these women feel happy with the rings around their necks? Why?"*

Reliability and Validity

Reliability that focuses on consistency, dependability and replicability of the findings of the data collected in a study is one of the most important requirements of research (Nunan, 1999, p. 14). Lincoln and Guba (1985) and Merriam (1998) stated that reliability can be guaranteed through different techniques such as an investigator's position, triangulation and audit trial. In this research context, the investigator was an insider to interpret the data collected. Different validation strategies were used in this research to validate the findings (Creswell & Clark, 2007; Patton, 2002). In order to validate the data, the researcher explained all procedures during the implementation explicitly. First of all, research questions were explained to clarify the important aspects of the research. The questionnaire, the students' comments at the end of each video experience, and lastly, the interviews conducted with the participants served as strategies to validate the findings with multiple data collection instruments.

Furthermore, the audit trail technique was used in this research to follow research stages regularly. Throughout the research process, the researcher took notes weekly to record as much information as possible to understand and interpret the

findings. To obtain smooth data, interpret and analyze it in a detailed way, the researcher took notes during the research that may help her understand the authentic and interactive video tasks. The questionnaire used in the research was also piloted to measure the understandability of the questionnaire items for the students as the questionnaire was modified to make it more suitable for the research sample. The alpha coefficient value was measured as .85. To ensure the reliability of the items, a single similar group of B1 students took part as a pilot group. When it comes to the qualitative phase of the study, questions for the semi-structured interviews were prepared by the researcher with the help of a subject matter expert. Although the researcher did not have any bias or thread for students' responses, the participants were rated only by the researcher.

Piloting the Survey

According to Creswell (2007), a pilot test is used as an instrument by getting feedback from a small number of individuals in order to test the understandability of the items. For this reason, the researcher benefited from a pilot test to grant the easiness and understanding of the survey items. For this study, when the alpha coefficient was measured, it was found as .85. The survey used within the scope of the research was piloted with 16 participants. They were B1 level students studying in a different class and they were not included in the authentic and interactive video watching process. The pilot survey was applied in a 40-minutes class hour. The researcher took note the time taken to complete the survey. At the end of the survey, the pilot participants were asked to give feedback and also asked whether there were some wordy or unclear items in the survey. The majority of the students did not point out any ambiguity related to the questionnaire items. They mentioned that the sentences were given explicitly. Only two students stated that they did not exactly understand the fourth item in the questionnaire. They pointed out that they do not know the meaning of a word (*conversational*) in the statement. For this reason, the researcher gave a synonym of the word in the parenthesis and also provided an example with the statement to make it more meaningful for the research group. The other pilot participants stated that the survey is convenient to use and clear enough to understand each item.

Data Analysis Procedure

The data collected from the participants were examined and provided through different themes in this research. The data analysis process took approximately three weeks after the data was collected. In order to obtain a more detailed perception of the students' authentic and interactive video experiences, as well as the impact of these perceptions on test scores, two kinds of qualitative data were aimed to collect and analyze.

The first one is the students' comments at the end of each video and the second is the interview data. First of all, the students' comments at the end of each video were analyzed thematically. The analysis of students' comments was compared with the results of the quantitative phase of this study. Following the implementation process, the students were interviewed individually, and their answers were recorded. Then, these responses were typed on a laptop computer. Generally, all the interviews lasted from four to six minutes. After conducting the interviews, the students' responses were

coded with the statements on an electronic system by the researcher. The themes in this study were defined uncomplicatedly because students' answers to the interview questions were similar to each other. After examining the codes, the data were divided into different categories addressing commonality. Igo et al. (2005) followed the same procedure while identifying categories from students' interviews in a similar way. The interview data explained the opinions of twelve students and five themes emerged: 1) the students' general experiences on authentic and interactive video tasks 2) the students' opinions about the effect of authentic and interactive video tasks on listening practices 3) students' opinions about multimedia learning 4) students' opinions about authenticity.

Ethical Procedures

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional research committee. Before the research started, the researcher applied the institutional ethics committee for ethical approval. The ethical committee approval date is May 3, 2019 and the number of the approval document is 96136591-050.06.04-E.10191. The students who agreed to participate in the study were given consent forms. In order to keep the confidentiality of the students, pseudonyms were assigned to all participants after the data collection.

Results

Pretest & Post-test Results

According to the descriptive analysis, it has been found out that there was a difference between the pre-test and post-test scores of most of the students who participated in this study after the implementation of authentic and interactive video tasks while four of them did not show a significant improvement in those tests. The pre-test and post-test scores were analyzed through Wilcoxon Signed Rank Test. According to test results, there was found a significant difference after the implementation of authentic and interactive videos. The significance value was found to be .20 ($p<.001$). (two-tailed).

Students' Performances on the Tasks

The students' video performances were graded throughout the implementation process and data from the platform was analyzed accordingly. Students' performances in each video were evaluated and compared one by one to find out whether their individual experiences on these video tasks improved or not. As a result of the analysis process, ten of 15 students increased their scores periodically. However, the reports also showed that authentic and interactive video tasks did not make a big difference for five students on the weekly process.

Findings of the Questionnaire

The questionnaire used as an instrument in this research consisted of 13 statements focusing on research question areas: Multimedia Learning, authenticity and perceptions (interest and enjoyment level). In this sense, the data coming from this questionnaire were categorized into three different sections: 1) multimedia 2)

authenticity 3) students' perceptions about the use of authentic and interactive video tasks.

The students' responses to the related statements of the questionnaire were analyzed and it was found out that 14 of the 15 students participated in this research thought that they learn better when the words and pictures are presented together, which is the fundamental of Multimedia Learning (Mayer, 2009). When students' answers to the statement: *"Watching short authentic-interactive videos helped me better understand the content of the course"* were analyzed, it was found that 13 of students strongly agreed and one of them agreed with the idea about the contribution of watching these videos to the understanding of course topics while only one student disagreed with this statement.

The other statement was about the voice principle of Multimedia proposing that human voice is more helpful than machine voice according to tests done: *"I learned better with a human voice than a machine voice"*. Students were provided all videos that included human voice regarding the voice principle of Multimedia Learning. Ten students agreed that human voice was more effective for students' learning rather than the machine voice. On the other hand, five of the students stated that they neither agreed nor disagreed with this statement.

All of the videos used in this research were authentic materials produced by native speakers of English. In order to find how authenticity affected students' ideas, four statements were given in the questionnaire. When the responses were analyzed, nine students strongly agreed that the videos were relevant to real life. Eight of them strongly agreed that use of real language in the videos has a positive effect on the improvement of the listening skills and four of them also agreed with this positive effect. However, three of the students chose "neither agree or disagree". Additionally, this research aimed to explore whether use of real-life videos increased students' interest and enjoyment while listening. Eight of the students strongly agreed that these videos motivated them more to use language, while three of them neither agreed nor disagreed with this statement. When it comes to the videos providing information from the current world, ten students strongly agreed that they learned about the current world via these videos. Two students agreed with this idea. Three students said "neither agree nor disagree" as they were indecisive in this view.

Students' Perceptions of the Videos

To investigate students' perceptions of the effect of these video tasks, the items focusing on interest and enjoyment level were taken from Intrinsic Motivation Inventory (IMI) and adapted according to the content of this research. Students were asked whether they found them enjoyable or not. When they watched these videos out of the classroom, nine of them stated that they strongly agreed that these video tasks were motivating for them. Three of them agreed, while two of them said: "neither agree nor disagree". No students chose "disagree or strongly disagree" items. In this sense, it was reported that most students had positive perceptions about the use of these tasks. Secondly, students were asked whether watching authentic-interactive videos made their learning more enjoyable for them or not. While ten of them strongly agreed, three of them agreed that these videos created pleasurable learning for them. On the other hand, two students disagreed with this statement. Lastly, to learn students' intentions about

watching authentic and interactive videos in the future, *"I am willing to watch interactive videos again."* statement was provided for them. Most of the students reported that they would like to watch these videos again in the future. Only one student was not willing to watch interactive videos.

Interview Findings

For the qualitative aspect of the research, students were asked their opinions via semi-structured interviews at the end of the nine-week video task process. It was aimed to investigate students' experiences on these authentic and interactive video tasks, their opinions about the effect of multimedia and authenticity factors on their listening skills and perceptions. For this reason, the findings were examined and divided into four groups. The themes obtained from the interviews are provided below.

Students' General Experiences on the Videos

The majority of the students stated their positive perceptions on the use of authentic-interactive video tasks. After examining students' views, the themes were categorized accordingly. When the students were asked about their general experiences on the use of these video materials, eight of twelve students reported that they learned different topics such as culture or global issues while watching authentic and interactive videos. Some of the students pointed out the easiness and practicality features of the videos used in the research. Three of the students stated that the videos served as useful materials during the implementation process. One of the students explained his ideas as follows; "It is really easy to use. When you sent them to us, I could open and watch it easily" (Participant 3, March 26, 2019).

Students' Perceptions of the Effect of the Videos on Enjoyment and Interest Level

Although the items adapted from Intrinsic Motivation Inventory (IMI) were provided in the questionnaire to obtain the students' results, semi-structured interview was also used to ensure the data. Students were asked questions about the effect of these videos on their interest and enjoyment level. Students responded to the question: "Were there any motivational factors of watching interactive videos for our listening class? Did they motivate you? Do you think that watching authentic and interactive videos is enjoyable? Please explain." Except for one student, most students stated that the videos they watched during the process motivated them to listen and watch more.

Moreover, some students declared that they feel better when they watch the videos because they find them enjoyable and an effective way to practice English. One of the students expressed her opinions as follows: "Of course. They motivated me to watch more and improve my listening skills. I heard native speakers, learned general cultural information and I believed myself, I can be better" (Participant 2, March 26, 2019). On the other hand, one student considers that authentic-interactive videos did not increase his motivation in this process. He said: "It does not have a big effect on my motivation." (Participant 6, March 26, 2019) Also, one student thinks that his motivation level changed according to the video he watched. The student expressed his opinions below; "It depends on the video. Not all of them were motivating, but some of them motivated me to practice more." (Participant 3, March 26, 2019).

Students' Opinions about the Effects of Video Tasks on Listening Practices

The students commented on the effect of these videos on their listening practices. The students pointed out that these videos affected their listening practices positively in different scopes such as vocabulary learning, pronunciation and interactivity. The interview data collected from the students also show that that the students regard authentic-interactive videos as an opportunity to improve their listening skills out of the classroom. In this sense, nine of twelve students stated that these materials help them practice their listening skills effectively. Four students explained their comments about the effect of these videos on listening skills and they pointed out that they learned how to pronounce some vocabulary items through the videos. One of the students expressed his ideas:

> We have a listening exam in this module. They are mid-term and final exams. During this module, we studied these videos and they helped me a lot. I learned how to pronounce the words. For example, if I do not remember how to pronounce a word, I try to remember the video. Then I remember its pronunciation (Participant 6, March 26, 2019).

One of the students also commented on the questions asked in each video. She pointed out the effect of different question types such as multiple-choice, open-ended or true/false on her listening skills. She said: "I answered the questions about these people. Sometimes I choose the answer or write the answers and it improves my listening skills different question types." (Participant 11, March 26, 2019). On the other hand, only two students stated that their first video experiences were challenging for them. One of them expressed his ideas as follows;

> It was difficult. Really. When I watched it for the first time, it was really hard for me to understand the video. But later, it was better than the first one. And when I watched the last video, I noticed that I can watch videos and understand them easily (Participant 10, March 26, 2019).

Students' Opinions about Multimedia Learning

The students were asked whether they prefer watching authentic-interactive videos or only reading/ listening materials. Except for only one student, all of the students preferred video materials indicating the multimedia effect. The students pointed out that videos are more effective tools for learning as they have both visuals and narration at the same time. One of the students expressed their opinions as follows;

> Actually, for me, I prefer to watch and listen to videos because it is better than only reading or listening. I love watching listening videos. I understand better when I watch rather than only reading. You do not see photos or visuals when you are reading. I can understand better by watching the video (Participant 1, March 26, 2019).

The other category was the students' opinions about pre-training before watching the videos. When the students were asked how these pre-training sessions in the class hours affected their learning, all of them responded positively to this question. The students also stated that they learn new concepts and information through the video but pre-training sessions make learning more effective. One of the students also indicated that watching videos is a more personalized activity when it is compared to ordinary lessons. He expressed his ideas as follows;

> Actually, you are repeating the same topic in an effective way through the videos. So, you cannot forget easily because you read and cover something in the class. Then you practice it but not as a lesson, as a normal life activity. I think it is more personalized, individual and special (Participant 2, March 26, 2019).

Students' Opinions about Authenticity

Authenticity is one of the focus points of this research as the research aims to find out how authentic videos create an effect on students. At the end of the interview, most of the students explained that they like watching authentic videos because they see them as materials from real life. One of the students pointed out that he enjoys watching these videos out of class as an extra activity. He said: "I think watching real video out of class is good because we do not have much time in the class and we can practice through these videos out of class more" (Participant 1, March 26, 2019).

In conclusion, most of the students who participated in this research stated their positive comments on using authentic and interactive videos out of the classroom. When the data was analyzed, it can be said that almost most of the students enjoyed watching authentic and interactive videos. Furthermore, the students found these materials an opportunity to improve their listening skills in terms of comprehension, pronunciation, learning new vocabulary, etc. When it comes to the perceptions of the students, the interviews conducted with twelve students showed that they found it useful and enjoyable to watch authentic and interactive videos not only to improve their listening skills but also to learn new/cultural information. The students also mentioned the effect of multimedia in the videos implicitly. When they were asked the question *"Would you prefer only reading the book, listening to the audio, or watching interactive videos to learn or practice?",* Fourteen of them preferred watching the authentic and interactive video by indicating the visual and auditory input provided at the same time.

Discussion and Conclusion

The first research question of the study aims to investigate the effects of authentic and interactive videos on students listening practices. According to the pre-test and post-test results, students got higher scores in the post-tests after watching the authentic and interactive videos. Although most students' performances increased gradually in the weekly videos, fluctuations also were observed in some students' performances. However, when the mean scores for each participant were analyzed, these fluctuations did not have a negative impact on students' achievements. These results were also supported by students' comments asked at the end of each video and through a questionnaire including different research areas. Most of the students stated their positive opinions on the use of authentic and interactive videos out of class. They reported that these videos are helpful for their listening practices. Students' grades and also comments were compatible with each other. The students consider that watching authentic and interactive videos is an opportunity for them to practice the topics they have learned in the class hours and learn new information about the world or different cultures. When it comes to interest and enjoyment level, the students stated that authentic and interactive videos motivated them to listen more as they enjoyed. Most of the students explained that they would like to watch these videos and practice through them again. It can be concluded that multimedia learning has a positive effect on students' video experiences.

The findings of the study are also compatible with the previous studies in the field. In this context, Ni (2017) carried out a study focusing on the effects of multimedia tools in listening comprehension. To find out students' perceptions of the use of multimedia materials, the researcher used a questionnaire as a research instrument and

multimedia features such as visuals and audio were found appealing by the students. Similarly, in this research, the students found the video materials more interesting and enjoyable than the books or only listening materials. With the help of Multimedia, learners take place in a learning environment as active participants (Neo & Neo, 2001).

Similarly, most of the students in this study addressed that they learn better when exposed to visual and audio input. They stated that they improved their listening skills in comprehension, learning new vocabulary, pronunciation, etc. However, using videos regarding multimedia learning cannot be the only reason why the students performed better in post-test scores and video grades. Authentic tasks have been used in instruction settings by colleges and universities around the world to lead learning. (Herrington et al., 2010). Ten of twelve students addressed the authentic and interactive videos as real-life examples. Overall, these findings are in accordance with the findings reported by Weyers (1999). The researcher investigated the effects of authentic videos on students' listening comprehension and communicative competence with Spanish university students. The experimental group was asked to watch 13 episodes of a Spanish drama. The research results show that the experimental group performed better in listening comprehension and communicative competence than the control group. The students in this study also enjoyed interacting with these videos as authentic tasks promote self-directed and independent learning, which is a significant element for technology-based learning. (Herrington et al., 2003).

In conclusion, this research aimed to explore the effects of authentic and interactive video tasks on students' listening practices and perceptions regarding multimedia learning and authenticity factor. The research shows that authentic and interactive video tasks were useful and helpful for the students as they created a positive effect on their extra listening practices and perceptions as well as presenting an enjoyable learning activity. Although the results of the study indicate an improvement in students' video grades recorded via the platform and post-tests, their performances could be influenced by other factors. For example, the students' interests, characters, learning backgrounds, or study habits are different, affecting the study results to a great extent. Moreover, technological readiness and the attitude and acceptance of users are important factors that need to be focused on by researching this field (Tick, 2006). Therefore, instructors play a role as facilitators. They need to design suitable learning environments and video materials considering the students' needs to motivate them in this process (Hadijah, 2016).

Statement of Responsibility

Neslihan Kaynar; research design, analysis, methodology, data collection, resources, discussion, conclusion, writing-original draft, writing - review & editing. Olgun Sadık; methodology, writing -original draft, writing - review & editing, resources, discussion, conclusion, supervision.

Conflicts of Interest

There are no conflicts of interest in this study.

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Counselor Candidates' Journey to Self-Awareness: Personality Theories

Psikolojik Danışman Adaylarının Kendini Tanıma Yolculuğu: Kişilik Kuramları

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ABSTRACT: Self-awareness is one of the main characteristics of effective counselors. However, there is no course to help increase the level of self-awareness of counselor candidates in the Guidance and Psychological Counseling (GPC) curriculum in Turkey. The present study aimed to discover the opinions of counselor candidates about the course of personality theories in the GPC undergraduate program in the 4th semester on the contribution of their self-awareness. The phenomenology design was used in this qualitative study. Forty-five counselor candidates who took the course of personality theories during one semester (14 weeks) participated in the study. A semi-structured interview form consisting of open-ended questions was used to collect the data. As a result of analyzing data with descriptive and content analysis, the themes of the awareness of personality traits, awareness of personality development, self-discovery, situational awareness, predisposition to being a counselor, and categories under these themes emerged. These results revealed that the course of personality theories contributes to the counselor candidates to know themselves better and increase their level of self-awareness. The findings were discussed in light of the relevant literature, and recommendations were provided for counselor educators.

Keywords: Self-awareness, effective counselor characteristics, counselor candidates, personality theories, phenomenology.

ÖZ: Öz-farkındalık, etki yaratan psikolojik danışmanların temel özelliklerinden biridir. Ancak Türkiye'deki Rehberlik ve Psikolojik Danışmanlık (RPD) müfredatında psikolojik danışman adaylarının öz-farkındalık düzeyini artırmaya yönelik doğrudan bir ders bulunmamaktadır. Bu araştırmanın amacı, RPD lisans programında 4. yarıyılda bulunan kişilik kuramları dersinin psikolojik danışman adaylarının öz-farkındalıklarına katkısına ilişkin görüşlerini incelemektir. Nitel yöntemle gerçekleştirilen bu araştırmada fenomenoloji deseni kullanılmıştır. Araştırmaya bir dönem boyunca (14 hafta) kişilik kuramları dersini alan 45 psikolojik danışman adayı katılmıştır. Verilerin toplanmasında açık uçlu sorulardan oluşan yarı yapılandırılmış görüşme formu kullanılmıştır. Elde edilen veriler betimsel ve içerik analizi yöntemi ile analiz edilmiştir. Analiz neticesinde kişilik özelliklerine ilişkin farkındalık, kişilik gelişimine ilişkin farkındalık, kendini keşfetme, durumsal farkındalık, psikolojik danışmanlığa yatkınlık temaları ve bu temalar altında kategoriler ortaya çıkmıştır. Bu sonuçlar kişilik kuramları dersinin psikolojik danışman adaylarının kendilerini daha iyi tanımlarına ve öz-farkındalık düzeylerinin artmasına katkı sağladığına işaret etmektedir. Araştırma sonuçları ilgili literatür ışığında tartışılmış ve psikolojik danışman eğitimcileri için öneriler sunulmuştur.

Anahtar kelimeler: Öz-farkındalık, etkili psikolojik danışman nitelikleri, psikolojik danışman adayları, kişilik kuramları, fenomenoloji.

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Counseling profession encompassing a broad variety of application areas today (e.g., school, industry, sports) and expanding in recent years with a rich and long history. Throughout this history, various schools of thought have emerged, different realms of help have been established, and the profession has progressively adopted a descriptive set of values (Hansen, 2009). Along with this set of values, professional requirements identified essential competencies a counselor must have (Corey, 2008; Cormier & Cormier, 1991; Yalçın, 2006). The main competence areas that counselors required can be listed as having personal characteristics, counseling skills, and professional knowledge (Yalçın, 2006). According to Cormier and Cormier (1991), an effective counselor's skills are intellectual competence, energy, flexibility, support, goodwill, and self-awareness. Hackney and Cormier (2008), on the other hand, describe the characteristics of effective counselors; having personal awareness and understanding, being psychologically healthy, sensitivity and understanding of the effects of ethnic origin and cultural factors on oneself and others, being open-minded, being objective, competent, being reliable and attractive in interpersonal relationships.

Self-awareness, which is one of the personal characteristics that psychological counselors should possess, has been regarded as a critical element for effective therapy and counseling (Fauth & Williams, 2005; Hackney & Cormier, 2008; Hansen, 2009; Hernández et al., 2010; Pieterse et al., 2013). Theorists who believe that a counselor should know him/herself before knowing others and the current literature emphasize the significance of a therapist's self-awareness that is fundamental to know oneself is to know others (DiVirgilio, 2018). Moreover, the Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2016) accepted the significance of self-awareness. It went a step further by stating that the existence of self-awareness is an essential criterion for a counselor qualification. Self-awareness is distinctly important because the high level of self-awareness in the counselors makes them feel free, safe, focused, harmonious, and competent when working with their clients (Vallance, 2004). Besides, counselors with low self-awareness are more likely to fail to continue the counseling process. An effective counselor should know their limitations, strengths, needs, expectations, and goals (Cormier & Cormier, 1991). Schneider-Corey and Corey (2002) also argued that a therapist with low awareness cannot help clients to gain self-awareness. It is obvious that the concept of self-awareness is enormously appreciated by the counseling profession.

Although the counseling profession has given high importance to the self-awareness of practitioners, the use of the term is problematic. There are diverse definitions of self-awareness in literature, indicating that each researcher can be referencing a different concept when they use "self-awareness" (Nutt-Williams, 2008; Uhlemann & Jordan, 1981; Williams, 2003). Most of the researchers have defined self-awareness as a global sense of self-knowledge (A capability to have understanding into one's personality and the internal world), but self-awareness has also been described as a temporary state of awareness, just as self-consciousness, and self-focused attention (e.g., Fauth & Williams, 2005; Nutt-Williams, 2008). Temporary self-awareness situations can be micro-states that are a part of the macro-structure of self-awareness (Pieterse et al., 2013). In addition, the conceptualization of general self-awareness has often been referred as a critical and positive part of therapy (Hernández et al., 2010;

Pieterse et al., 2013). Thus, in the present study, the counselor's self-awareness was handled as a general self-awareness.

General self-awareness refers to a state of being aware of one's feelings, beliefs, thoughts, actions, and attitudes, and knowing how these issues are shaped by significant aspects of one's developmental and communal history (Cormier & Cormier, 1991; Pieterse et al., 2013; Pompeo & Levitt, 2014). Jevne's (1981) survey showed six components of self-awareness: values and attitudes, emotional responses, proficiencies, needs/desires/objectives, personal restrictions, and personal impression (as cited in Uhlemann & Jordan, 1981). Likewise, Schneider-Corey and Corey (2002) stated that the basic characteristics of a self-aware therapeutic person are to be aware of their identity, goals, motivation, needs, strengths and weaknesses, values, cultural dynamics, emotions, and problems. In summary, the literature on counselor self-awareness has proposed that the key components in conducting effective psychotherapy are awareness of family dynamics, unresolved conflicts, cultural prejudices, and worldview (Pieterse et al., 2013).

Self-awareness and personal characteristics are essential elements of counselor education programs (Corey, 2008; Hernández et al., 2010; Pieterse et al., 2013; Uhlemann & Jordan, 1981). The literature emphasizes that a counselor's self-awareness emerges where supervision, family therapy, and multiculturalism exist as content (Pieterse et al., 2013). Also, since the psychoanalytic theory accepted self-awareness as a basic requirement in psychotherapy, therapist training includes self-awareness practices. A group of approaches also highlight that counselors should receive personal therapy to develop self-awareness (McEwan & Duncan, 1993). Other alternative methods for self-awareness in counselor training are personal development groups and self-awareness counseling groups (Topuz & Arasan, 2014). However, there are major limitations in the counseling literature about models and researches for self-awareness training (e.g., Pieterse et al., 2013; Pompeo & Levitt, 2014). Moreover, counseling programs neglect the importance of personal development and self-awareness while focusing more on skills such as evaluation, intervention strategies, psychopathology, and treatment in counselor education (Hernández et al., 2010; Myers, 2003).

The Present Study

As in the counseling programs around the world, there is no course in the curriculum that aims to increase the personal awareness and development of the counselor students in the Guidance and Psychological Counseling (GPC) undergraduate program in Turkey. However, the content of the course of personality theories in the 4th semester of the 4-year undergraduate program includes the basic concepts of personality, development of personality, harmony and mental health; learning the characteristics of personality theories and associating them with field practices (The Council of Higher Education, 2018). Within the scope of the course, many theories from psychoanalytic theories of personality to behavioral theories, from humanistic/existential theory to cognitive theories are introduced. Theorists' views on human, personality and personality development are presented (Burger, 2006; Cervone & Pervin, 2016; Yazgan-İnanç & Yerlikaya, 2016). In this respect, this course opens a new window for students to know themselves, make inferences about their personalities and personal development. Therefore, the views of counselor candidates on the course

of personality theories on the contribution of their self-awareness were examined in this study. In the light of these explanations, the objectives of the study are as follows:

Based on the course of personality theories;

1. How do counselor candidates define their personality traits?
2. How is the counselor candidates' awareness about the development of their personalities?
3. What traits did the counselors discover themselves?
4. What kind of gains have the counselor candidates obtained in terms of past-present-future awareness?
5. How can counselor candidates gain awareness of whether their characteristics are prone to be counseling or not?

Method

Research Design

In this study, the phenomenology design, one of the qualitative research designs, was utilized to determine the change in the self-awareness of the counselor candidates after taking the course of personality theories. The phenomenology design tries to reach the essence of the experience by asking questions about the experiences related to the phenomenon (Creswell, 2013; Patton, 2014; Saban & Ersoy, 2016).

Participants

Forty-five counselor candidates (30 female, 15 male) studying at the Department of GPC at a state university in Konya participated in the study. Participants have completed the second class (4th semester) and studied in the same class. Participants were chosen according to the criterion sampling method, one of the purposeful sampling methods, in line with the purpose of the study. The purposeful sampling method is a widely used sampling method that is suitable for the qualitative research tradition (Patton, 2014; Yıldırım & Şimşek, 2013). Criterion sampling, which is one of the purposeful sampling types, is the inclusion of individuals who meet a predetermined set of criteria (Yıldırım & Şimşek, 2013). The criterion was set for the participants in this study are to attend the course of personality theories one semester and pass this course successfully.

Data Collection Tools and Process

To examine the opinions of the counselor candidates on self-awareness in depth at the end of the course of personality theories, a semi-structured interview form consisting of open-ended questions was used (Yıldırım & Şimşek, 2013). The data collection tool was created in light of the relevant literature and in line with the sub-problems of the research. To measure the appropriateness of the questions, the opinions of three experts who have experience in qualitative research in the field were taken into consideration. The questions were revised based on the feedback and suggestions of the experts. Then, the opinions of three counselor candidates were taken to determine whether the questions were understandable or not, and the questionnaire form was finalized by considering the students' opinions. During the data collection, the participants were informed about the purpose of the study and how to answer the

questions. It was also stated that answering the questions is based on voluntariness, that they can answer questions freely, and they are assured that their answers will remain confidential.

Data Analysis

Content analysis and descriptive analysis methods were used together for the data analysis. The main purpose of content analysis is to obtain concepts and relationships to explain the data. During the content analysis, unpredictable themes and categories have emerged after the data is analyzed in depth. The descriptive analysis method is used in studies of which conceptual structure or themes are predetermined. Therefore, the collected data is summarized and interpreted according to predetermined themes (Yıldırım & Şimşek, 2013).

The data were analyzed in line with the suggestions of Miles and Huberman (2019) and the following steps were followed respectively: (a) data collection, (b) data reduction, (c) data representation, and (d) deduction, and verification.

In the first step of data analysis, the written responses of the students to open-ended questions were compiled and numbered. In the data reduction step, the data were organized, sorted and an analytical selection was made. At this step, the data were processed one by one and coded. Coding is the essence of the analysis of qualitative data analysis. During the coding process, the data were reviewed, synthesized, and meaningful categories and themes were created by preserving the integrity of the relations between the texts. Coding was carried out with a flexible approach with the repetitive cycle of induction and deduction. Then, the validity and reliability of the results were examined, and the results were confirmed. Finally, the results had been visualized with tables for the readers to enable them to grasp it better (Miles & Huberman, 2019). Data were analyzed using NVivo 11 software. This program has facilitated the coding of data and the creation of themes and categories.

Establishment of Trustworthiness

The following measures have been taken to increase the validity and reliability of the analysis results (Miles & Huberman, 2019; Yıldırım & Şimşek, 2013):

To increase the credibility (internal validity), expert opinion was involved in each step of the study, from the preparation of the interview questions to the analysis phase. To obtain an in-depth understanding, besides a questionnaire form consisting of semi-structured questions, and open-ended questions were asked. To increase the transferability (external validity) of the results, each step of the qualitative study was explained in detail. The themes and categories were presented visually so that the reader can easily understand, and the findings were supported with direct quotations. However, while making direct quotations, coding with gender (M/F) and number (such as M1, M2, F3… F45) is used instead of the names of the participants due to the confidentiality principle. In order to increase the consistency (internal reliability), themes and categories were examined by three researchers with qualitative research experience, and minor changes were made based on the researchers' suggestions. To provide confirmation (external reliability), the data were coded on different dates, and the coefficient of agreement between the emerging themes and categories was examined. The coefficient of the agreement was calculated as 90%.

Results

In this section, the themes and categories that emerged after analyzing the opinions of the counselor candidates, and quotations from the participants' opinions are included. In the analysis, five themes and categories emerged: awareness of personality traits, awareness of personality development, self-discovery, situational awareness, and predisposition to being a counselor.

Awareness of Personality Traits

Counselor candidates who took the course of personality theories during the semester were asked to describe and explain their personality based on this course. As seen in Table 1, counselor candidates took personality theories as a reference while defining their personalities and described themselves based on this information. Looking at the answers given by the counselor candidates, the most commonly expressed personality trait is extroversion, and the personality traits of introversion, agreeableness, conscientiousness, openness to experience, and neuroticism follow this answer respectively.

Table 1

The Categories and Sample Statements of the Awareness of Personality Traits Theme

Categories	Sample statements
Extroversion (f=13)	"Extroversion, which is the basic concept of analytical psychology, defines me accurately. Where the social activity is, I am there. You can understand this from the SAKA student club that I established with my friends and the projects I have done in this club. I have a friendly personality who likes to touch onto lives and spend time with people." (F16)
Introversion (f=11)	"I define my personality as an introvert. I am not good at building close relationships with people, trusting, giving them confidence. I don't like crowded places. I love being alone and mindful. (M10)
Agreeableness (f=8)	"I am a mild-tempered and caring person. I overthink and struggle especially in details." (F13)
Conscientiousness (f=6)	"I am a rather responsible and success-oriented person, sensitive and somewhat obsessed. It is difficult for me to get used to the new things, to absorb them in my life." (F14)
Openness to experience (f=6)	"I like different hobbies and trying different things. But the concept of birth order in Alfred Adler's theory, which I had the opportunity to examine with this lesson, helped me a bit in this regard. Because I'm also the fifth and last child at home. I have never been a shy person since childhood. It can also be said that I am an outgoing person. I attach great importance to innovative ideas instead of steady ones." (F22)
Neuroticism (f=5)	"I generally follow my emotions; I am not a person who decides with his/her logic. I am usually an anxious and stressed person. I constantly think about the past and feel regretful. I think about the future and feel worried. My most distinctive feature may be that I get angry very quickly. Things that would never affect a normal person can make me very angry." (M3)

Awareness of Personality Development

In order to examine the awareness of counselor candidates about their personality development, we asked "Which factors do you think have the most influence on your personality development? Please explain briefly." Counselor candidates argued that personality development is influenced by family dynamics, environment, early experiences, attachment style, and genetic (Table 2). As can be seen in the table, most of the counselor candidates emphasized family dynamics. Participants stated that the family is the environment where they were born and raised and that their parents' child-rearing attitude shaped their personalities. Another factor that counselor candidates emphasize most in personality development is the environment. However, the influence of genetic factors and attachment styles has been neglected by most of the counselor candidates and these factors are not frequently mentioned.

Table 2

The Categories and Sample Statements of Awareness of Personality Development Theme

Categories	Sample statements
Family dynamics (f=37)	"My family has been the most influential factor of my life in terms of my personality growth. I think, it naturally happens that the family gets involve in shaping a personality of a child as a role model. For example, in my case, I would say why I am not very self-confident about myself is that my family. Because, I am profoundly affected in negative ways by their attitude towards me as they did not give me a space or let me to talk on behalf of myself when I am young. They even used to fulfill duties which I was the one who was supposed to do." (M31)
Environment (f=27)	"I believe that the environment I live in affects both my thoughts and my personality. Because the environment I live in has transferred the cultural and other values to me as I was growing. Therefore, I believe that the environment has affected and improved me the most in my personality development. The influence of the environment is bigger because personality develops around certain value judgments and moral rules. The environment I am in has shaped my view of the world. I think someone's perspective is a concept which directly related to personality. That's why the environment affects my personality the most. There is a motto that says, "geography is destiny". I changed this motto with: "The environment we live in is our personality, and it is our preferences that shape our destiny." (F19)
Early experiences (f=16)	"When I think of my childhood experiences, some negative events which shaped the development of my personality have happened to me, and I can say that these experiences affected me greatly. To be honest, the traces of my childhood continue to affect my behavior and thoughts that is me." (M4)
Attachment style (f=3)	"My attachment style is also somewhat effective in my personality development. My family's attitude towards me since I was little has been inconsistent. Therefore, I have a fearful-anxious attachment style. Right now, I can't be sure if people love me. I don't trust anyone. I generally consider myself worthless in relationships. I always think of ideas like 'You deserve this, 'You are not worthy to be loved anyway '...'" (F35)
Genetic (f=2)	"…The genes brought us into the world also affect our personality." (F16)

Self-Discovery

The answers given by the counselor candidates were combined under four categories to the question of how theories they learned during the course of personality theories contribute to self-discovery: Strengths and weaknesses; habits; feelings, thoughts, and behaviors; values, beliefs, and culture (Table 3). Most of the counselor candidates stated that their awareness of their feelings, thoughts, and behaviors increased at the end of this course. Likewise, most of the participants noted that personality theories guide them in recognizing their strengths and weaknesses. Also, many counselor candidates have become more aware of their habits and emphasized their increased awareness of the influence of values, beliefs, and culture on their behavior.

Table 3

The Categories and Sample Statements of the Self-Discovery Theme

Categories	Sample statements
Feelings, thoughts, and behaviors (f=31)	"One of the most important things this lesson taught me is that personality manifests itself in emotions, thoughts, and behaviors. So, thanks to this lesson, I learned the underlying reasons for my feelings and thoughts. Horney's thoughts on women and his idea of equality between men and women further supported my thoughts on this issue. Erik Fromm's view of freedom helped me realize my views on this subject. In this context, the course of personality theories helped me to understand my feelings and thoughts better and to develop myself in this direction." (F19)
Strengths and weaknesses (f=26)	"At first, I was thinking 'how can we apply these theories to our lives?' But then I realized that there was a reason for my behavior, thoughts, and actions. For example, after studying Adler's statements, I realized that I had weaknesses. Concepts such as birth order, inferiority complex, and striving for superiority enabled me to discover my weaknesses. But likewise, for Freud's theories, I realized that I am a powerful creature and have strong feelings. Especially there is no limit to what the id can do." (M5)
Habits (f=21)	"I started to realize my habits that I had never thought about before. For example, I noticed that some of my habits are due to deficiencies. I experienced it during the oral period. I realized that my smoking habit was due to a deficiency arising from this period. I noticed that the environment has an impact on habits." (M44)
Values, beliefs, and culture (f=18)	"I realized that our values, beliefs, and culture create have led to some changes in our personality and life after this lesson. But most importantly, I realized that people's problems, thoughts, values, and beliefs always intersect and are similar, even from different societies and cultures. For example, everyone, regardless of religion, has an existential thought, belief, and tendency to live purposefully." (F1)

Situational Awareness

The answers are given by the counselor candidates were combined under three categories to the question of how the course of personality theories contributed to them in terms of awareness of the past, future, and present: Past, present, and future (Table 4). Most of the counselor candidates stated that they questioned how their past experiences, choices, and experiences affect their current lives and increased their level of awareness.

They also said that their awareness of how current actions interact and shapes future actions and feeling to live in the moment has increased. Adding to that, they expressed that the past, present, and future are tightly intertwined.

Table 4

The Categories and Sample Statements of Situational Awareness Theme

Categories	Sample statements
Past (f=34)	"The course of personality theories proved to me that some of my past experiences, especially my childhood events, continue to have an impact on my life even now. So much so that some experiences will show their effect even in the future. Because childhood is both a critical period and a period when attention is directed towards the environment." (F24)
Future (f=23)	"I learned that the future is an unknown, but the past and the future are connected like rings of a chain." (F6)
Present (f=14)	"Regarding the awareness of the present… I realized that the behaviors I have displayed during my life are directed towards my goals." (M40)

Predisposition to Being a Counselor

The answers given by the counselor candidates to the question asked to examine the views of the counselor candidates on the predisposition of their personality traits to the counseling profession were collected under the trait categories suitable for psychological counseling and traits not suitable for psychological counseling (Table 5). Due to the course of personality theories, most of the students whose awareness about them increased stated that their characteristics are suitable for the counseling profession. However, they stated that some of their characteristics were not suitable for psychological counseling and they made efforts to make them right or improve these features.

Table 5

The Categories and Sample Statements of Predisposition to Being Counselor Theme

Categories	Sample statements
Traits suitable for counseling (f=42)	"Trying to know and understand people has always been something I love. I think I am good at interpersonal relationships. I love listening to people, trying to understand them. I respect and tolerate everyone's opinions. I am calm and a person of few words, but I use them accurately. I know that counselors help the client to find the right path himself, not giving advice. I believe I will do these things and I think my personality identified with the counseling." (F23)
Traits not suitable for counseling (f=24)	"I think the most troublesome feature that I need to change in my personality and does not match this profession is that I am too defensive and offensive against the criticisms towards myself. I think this is a situation that I need to fix before I start my career so that I build communication with people more healthy way." (F42)

Discussion and Conclusion

In this study, the acquirements of the self-awareness of the counselor candidates after taking the course of personality theories for one semester (14 weeks) were revealed. As a result of the analysis of the qualitative data, five themes (awareness of personality traits, awareness of personality development, self-discovery, situational awareness, predisposition to being a counselor), and various categories under these themes emerged. Counselor self-awareness and personality traits are some of the most significant elements of undergraduate and graduate counselor training programs (Hernández et al., 2010; Myers, 2003; Topuz & Arasan, 2014; Uhlemann & Jordan, 1981). Besides, it is considered necessary to increase the personal development of counselors who receive counseling training (Smaby et al., 2005). Although no course directly supports the self-awareness and personal development of counselor candidates in the GPD curriculum in Turkey, it can be said that the course of personality theories helps to achieve this aim, based on the study results. Similarly, Chin-Yen (1998) emphasized that psychological counseling theories and skills contribute to self-knowledge and self-understanding.

Counselor candidates began to understand personality traits better and used the classifications of the theorists after they learned in personality theories (extroversion, introversion, agreeableness, conscientiousness, openness to experience, neuroticism) while defining their personalities after taking the course of personality theories. Also counselor candidates stated that they were better aware of the factors that affect the development of their personalities, and they stated that these factors are: family dynamics, genetic, early experiences, environment, and attachment style. Other applications that increase the self-awareness of counselor candidates in the literature are participating in personal therapy (Myers, 2003) or group therapy (Topuz & Arasan, 2014), counselor self-care (Pope & Kline, 1999), supervisory relationship (Pieterse et al., 2013; Vallance, 2004) and self-reflective practices (DiVirgilio, 2018; Pope & Kline, 1999). DiVirgilio (2018) revealed in his study that self-reflective practices of clinical supervision and self-reflective journal writing during graduate years increase self-awareness. Similarly, Vallance (2004) found in her qualitative research that supervision experience increased students' self-awareness.

After taking the course of personality theories, another achievement that the counselor candidates have obtained is to realize their strengths and weaknesses, habits, emotions, thoughts and behaviors, values, beliefs, and how the culture they live in affects them. Myers (2003), who conducted a similar qualitative study, did activities to increase self-awareness and gave assignments to 16 graduate students in the counseling program. Students are encouraged to get to know themselves and realize their personal development throughout this process. At the end of the program, the stories of the students on personal development were received. In these stories, the participants emphasized that they gained awareness of their personalities, realized their potential, developed more empathy with themselves and others, and improved interpersonal relationships. In another study, Jevne (1981) revealed that counselors who have a high level of self-awareness are conscious of values and attitudes, competencies, needs/wants/aspirations, personal impact, emotional reactions, and personal limits. It is rather beneficial for counselors to know the dynamics of their personality and the characteristics of the environment in which they live in order to be free from prejudice

while establishing relationships with their clients. In this respect, the psychological counselor should be aware of its own cultural components that shape the perspective. The recommended method to develop the therapist's sensitivity to this issue is to self-examine his/her own background from the point of race, gender, culture, social and economic class (Baker, 1999).

Counselor candidates emphasized that their situational awareness of the past, present, and future has increased after taking the course of personality theories. The role of the past in shaping the current moment and personality has been the category most frequently emphasized by counselor candidates. Global self-awareness means that, unlike momentary self-awareness, the person is also aware of himself in terms of his/her developmental history (Pompeo & Levitt, 2014). In this context, the level of awareness of counselor candidates about how their behaviors and emotions are affected by temporal factors has increased.

The personality traits of students who receive counseling education are one of the most critical factors in terms of personal effectiveness in counseling (Carlozzi et al., 1982). The personality traits of students are a factor that facilitates the acquisition of counseling skills and the counseling training process (Pope & Kline, 1999). In this study, counselor candidates who had the opportunity to get to know themselves better and discover their personalities by taking the course of personality theories for a semester evaluated whether their characteristics are prone to be a psychological counselor. As a result of the evaluation, most of the counselor candidates stated that they are suitable for this profession. However, they stated that some of their traits are not in line with the requirements of the profession and that they will make efforts to change these features. In a similar study, Topuz and Arasan (2014) organized counseling sessions with a self-awareness group consisting of five sessions in order to improve the level of self-awareness of counselor candidates. Counselor candidates attending the sessions had the opportunity to think about themselves further, recognize their strengths and weaknesses, and analyze what aspects of themselves are appropriate and unsuitable for being a counselor. Therefore, they gained awareness of the aspects they need to divert to be a more successful counselor.

Limitations and Recommendations

Like any other research, this study has also confronted a few limitations. Counselor candidates studying at only a state university participated in the study. Similar studies can be carried out with the participation of students studying in other universities in Turkey to eliminate this limitation. A questionnaire consisting of open-ended questions was used as a data collection tool in the study. It may be helpful to use additional data collection methods such as semi-structured interviews, observation, and students' personal stories to examine the participants' views further.

The suggestions for the counselor educators who teach the course of personality theories can be listed as follows: Lecturers conducting the course of personality theories can guide and support the counselor candidates knowing themselves better and personal development through assignments throughout the semester. For example, assignments can be given to the counselor candidates on which aspects of their personality they discovered based on personality theories. Counselor candidates can be encouraged to think and question by asking open-ended questions in the exams. Also, activities such as

letter writing and drama can be carried out with students in this course. Besides, courses of counselor self-awareness can be graduate psychological counseling programs.

Conclusion

Counselor's self-awareness and personal development are some of the factors that contribute to the counseling and therapy process. For this reason, some practices are made to increase counselor self-awareness in counseling training. It is also possible to add a course of personality theories to these practices in the literature. The counselor candidates taking the course of personality theories at the undergraduate education level have a better comprehension of their personality traits and the basic dynamics that shape their personalities. Consequently, the counselor candidates began to get to know themselves better and realized how their strengths and weaknesses, habits, feelings, thoughts and behaviors, values, beliefs, and the culture they live in affect them. Counselor candidates who know themselves better have determined personality traits that are compatible and incompatible with the counseling profession have started to take some precautions.

Conflicts of Interest

There are no conflicts of interest in this study.

Ethical Approval

I declare that the research was conducted in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. The study was approved with the Meeting Date and Number 08.07.2020/18 by the Social and Human Sciences Ethics Committee of Bartın University. The author received no financial support for the authorship, research, and publication of this article.

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A Meta-Synthesis Study for Researches on Citizenship Education within the Scope of Social Studies Course in Turkey

Türkiye'de Sosyal Bilgiler Dersi Kapsamında Vatandaşlık Eğitimine İlişkin Gerçekleştirilen Araştırmalara Yönelik Bir Meta-Sentez Çalışması

Burcu SEL[*] iD

ABSTRACT: In this research, the purpose is to develop a systematic perspective on the research on citizenship education within the scope of social studies field, to reveal the tendency of the studies, and to reach a synthesis in this direction. Meta-synthesis method was used for this purpose. Researches on "citizenship" were collected and reviewed according to certain criteria, and then the reading process was repeated in order to identify the relationships between the researches, similar, different aspects were identified by using perspective-based continuous comparison, and a synthesis has been reached based on the obtained findings. The researches were obtained from National Thesis Center of the Council of Higher Education and Ulakbim TRDizin. During the analysis of the data process, thematic synthesis and descriptive analysis were utilized. Three main themes were reached: citizenship types/approaches, citizenship perception, and components of citizenship education. Citizenship types/approaches are addressed as spatial, environmentally responsible, effective/effectual/active citizenship, global and digital citizenship. In the context of citizenship perception, it is seen that the subjects of meaning attributed to citizenship, citizenship awareness/identity construction, good/ideal citizen, patriotism are taken as a basis. Under the main theme of components of citizenship education, three sub-themes were generated: basic elements in citizenship education, approaches in citizenship education, and problems in citizenship education. It can be suggested to examine the factors that cause the formation of nationalist and socialist citizenship perception, which is frequently encountered in the studies examined. In addition, comparative studies can be carried out by expanding the databases.

Keywords: Citizenship education, meta-synthesis, social studies.

ÖZ: Bu araştırmada sosyal bilgiler kapsamında vatandaşlık eğitimi temelinde gerçekleştirilen araştırmalara sistematik bir bakış açısı geliştirmek, araştırmaların nasıl bir eğilim içerisinde olduğunu ortaya koymak ve bu yönde senteze varmak amaçlanmıştır. Metasentez yönteminden yararlanılarak "vatandaşlık" konulu araştırmalar belirli kriterler dâhilinde toplanmış, ön okumadan geçirilmiş, ardından araştırmaların nasıl bir ilişki içerisinde olduğunu belirleyebilmek adına okuma süreci tekrarlanmış, sürekli karşılaştırmaya dayalı bakış açısından yararlanılarak benzer ve farklı yönler tespit edilmiş, elde edilen bulgulardan yola çıkılarak senteze ulaşılmaya çalışılmıştır. Veriler YÖK Ulusal Tez Merkezi ve Ulakbim TRDizin aracılığıyla elde edilmiştir. Veri analizi sürecinde tematik sentezleme ve betimsel analizden faydalanılmıştır. Metasentez süreci sonunda vatandaşlık türleri/yaklaşımları, vatandaşlık algısı ve vatandaşlık eğitiminin temel bileşenleri olmak üzere üç ana temaya ulaşılmıştır. İlk olarak vatandaşlık türleri/yaklaşımları ana teması mekânsal, çevresel sorumlu, etkili/aktif vatandaşlık, küresel ve dijital vatandaşlık; ikinci olarak vatandaşlık algısı ana teması vatandaşlığa yüklenen anlam, vatandaşlık bilinci/kimlik inşası, iyi/ideal vatandaş, vatanseverlik/yurtseverlik ve son olarak vatandaşlık eğitiminin bileşenleri ana teması ise vatandaşlık eğitiminde temel unsurlar, vatandaşlık eğitiminde kullanılan yaklaşımlar ve vatandaşlık eğitiminde yaşanan sorunlar olmak üzere alt temalara ayrılarak değerlendirilmiştir. İncelenen araştırmalarda yoğunlukla ele alınan ulusalcı ve toplumsalcı vatandaşlık algısının oluşmasına neden olan faktörlerin incelenmesi önerilebilir. Bununla birlikte veri tabanları genişletilerek karşılaştırmalı araştırmalar yürütülebilir.

Anahtar kelimeler: Vatandaşlık eğitimi, meta-sentez, sosyal bilgiler.

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Theories of citizenship, which have been in philosophy since Aristotle and Plato, often have very different meanings than we can apply today (Leighton, 2004, p. 169). The center in the most recent developments in citizenship discourses has changed from definitions that emphasize legal, civic, and political constituents to social constituents such as identity, virtue, civic attitudes, and knowledge (Nabavi, 2010, p. 2). The increasing ethnic, cultural, racial and religious diversity in the world obliges citizenship education to be modified in important ways to effectively prepare students in the 21st century (Banks, 2001, p. 6). "Both the concept of citizenship and citizenship education have gone through a transformation in the last 20 years as policymakers, academicians, and citizens tried to deal with the consequences of globalization, increasing immigration, and new information and communication technologies" (Keating, 2016, p. 35). In addition, nearly the last two decades, school systems around the world appear to have undergone numerous reform measures designed to reorient and/or strengthen the role of citizenship education, including the introduction of new school subjects and cross-curricular themes (under a range of curriculum tags, including citizenship, civic knowledge, democratic education, national education, and political education) in many countries, and major reforms in the existing curriculum (Johnson & Morris, 2010, p. 77). Various changes and transformations in this context have made it necessary to develop a renewed perspective on both the definition of citizenship and the nature of citizenship education.

Since citizenship education is closely related to the legitimacy of the nation-state, various institutions and citizenships pose a significant challenge to the content of the national curriculum, as well as the traditional goals and assumptions of citizenship education (Keating et al., 2009, p. 145). While citizenship education generally focuses on the closeness of the nation and citizens to the nation-state, cosmopolitanism in this global age, on the other hand, challenges this by emphasizing the primary commitment to humanity and/or planet Earth (Osler, 2011, p. 1). "The increasing racial, ethnic, cultural, linguistic, and religious diversity in the nation-state around the world raises new and complex questions about educating students for effective citizenship" (Banks & Nguyen, 2008, p. 137). Since the nation-states first institutionalized schooling, the meanings of the concept of "citizenship" in terms of educational practices have been built over time and through cultural struggles (Abowitz & Harnish, 2006, p. 653). As the meaning of citizenship is shaped, it is also seen the concept of citizenship has various dimensions. In this direction, different dimensions of citizenship are stated as legal status, political and civil rights, identity, social and economic rights, competence and skills, values, culture, and behaviors (Keating, 2016, p. 37). In addition, Hébert and Sears (2001) stated that there are four main areas of citizenship, namely the civil, political, socio-economic, and cultural or collective dimensions; they state that the first three of these were identified by T.H. Marshall after WWII, while the fourth emerged later, and that these four areas of citizenship are in a complex interaction in a dynamic and global context.

Citizenship Education and Social Studies

It is seen that the concept of citizenship offers "membership, identity, values and participation" rights, at least theoretically, and undertakes a common political knowledge (Abowitz & Harnish, 2006, p. 653). Citizenship refers to the relationship

between the individual and the state and those within the state, while citizenship education is accepted as the preparation of individuals to participate in democracy as active and responsible citizens (Hébert & Sears, 2001). There has been a notable increase in interest in citizenship education over the past decade (Sim, 2008, p. 253). When the last decade is examined, the intense interest in sociological, political and legal literature on citizenship parallels the policies aimed at expanding the scope of citizenship education in many countries (Brooks & Holford, 2009, p. 1).

> Interest in citizenship education has increased worldwide over the past decade. Some see this dimension of education as an opportunity to prepare the youth from local to global to understand and be involved in the civic life of communities. Others see it as a way of responding to a range of social and civic concerns. Regardless of the reason(s), there has been an increase in worldwide research, formal debates, and curriculum initiatives as teachers, policymakers and researchers try to understand and evaluate the complex processes that young people learn about democratic citizenship. (Evans, 2006, p. 411)

Since the 19th century, one of the most fundamental models of modern citizen building has been recognized as the extension of formal education through the establishment and development of education systems supported both publicly (state) and privately (Fischman & Haas, 2012, p. 171). Citizenship education, in one way or another, has been observed in every society as a comprehensive goal throughout history (Sim & Print, 2005, p. 58) and as one of the core responsibilities of public schools (Sears & Hughes, 1996, p. 123). When contemporary modern societies are examined, it is stated that schools are obliged to provide citizenship education based on the assumption of the critical role of schools in the development of citizenship (Geboers et al., 2013, p. 169). Policymakers hope that schools will build children's citizenship perspectives (Eidhof et al., p. 123). Since the responsibility of socializing the new generation to become a nation-state is of great importance, many governments have given this task especially to schools (Sim & Print, 2005, p. 58). Many governments around the world aim to develop citizenship education programs based on schools (Brooks & Holford, 2009, p. 12). "Furthermore, citizens' values, attitudes and behaviors are learned not inherited, and schools play an important role in informing children and young people about the formal and informal rules of citizenship, and in preparing them for their role as citizens" (Keating, 2016, p. 35). Citizenship education has been accepted as the main duty or obligation of schools since the past due to ideological, political, economic, and social concerns, and it has been tried to be controlled especially by the sovereign powers. In this sense, citizenship education is a basic obligation that takes place in a controlled and supervised manner.

"Citizenship education may be defined as any conscious or overt effort to develop students' knowledge of government, law, and politics as those have evolved through history and presently operate in our society" (Hoge, 2002, p. 105). Citizenship education is broadly interpreted to include the preparation of young people for their roles and responsibilities as citizens and especially to include the role of education (through education, training, and learning) in this preparation process (Kerr, 1999, p. 6). The basis of this education is the belief that the state is responsible for conveying fundamental values and that these values belong to the public sphere (Osler & Starkey, 2004, p. 4). In general, the main goal of citizenship education is to encourage and support people to play a better democratic role (Davies et al., 2005, p. 342).

> Citizenship education is a broad field that includes a wide range of philosophical, political, and ideological perspectives and pedagogical approaches, goals, and practices. At the most abstract level of discourse, there is a general consensus that the primary goal of citizenship education is the development of good democratic citizens. This goal is expressed in different ways in terms of implementing educational policies, curriculum development, and pedagogical strategies. As a matter of fact, citizenship education, like other educational fields, has conservative and progressive orientations. Citizenship education can be used as a tool to maintain the status quo as well as empower individuals and groups to fight for emancipatory change. While citizenship education practices are located somewhere along the continuum of these two orientations, they tend to gravitate towards one or the other. (Schugurensky & Myers, 2003, p. 1-2)

Considering citizenship education in terms of curriculum, it is seen that social studies course offers a wide theoretical ground. The social studies curriculum is largely responsible for citizenship education; here it is usually found as a separate area or focus within the scope of primary school social studies curriculum, and is represented everywhere in the secondary and high school social studies curriculum as one or more subjects in the field of government or citizenship (Hoge, 2002, p. 105). "Teaching social studies as a social science is based on the assumption that acquiring the knowledge, skills and values of social sciences is the best preparation for effective citizenship" (Yalçın & Akhan, 2019, p. 844). Social studies course is mainly taught as a component of the process of transferring simplified social sciences and citizenship values (Sim & Print, 2005, p. 70). It is stated that there is a consensus that the basic goal of social studies is citizenship education or preparing young people to have the knowledge, skills and values necessary for effective participation in society (Ross, 2004, p. 249). The National Council for the Social Studies [NCSS] defines an effective citizen as someone who has the knowledge, skills, and attitudes necessary to assume the 'seat of citizenship' in the democratic republic (NCSS, 2001). Through the social studies course, which undertakes the role of citizenship transfer, students are able to socialize towards a certain set of values and knowledge at both cognitive and affective levels by focusing on the nation, common culture and shared values (Sim & Print, 2005, p. 70). "In today's global environment, social studies educators have the opportunity to expand their students' vision of the role of citizenship in developing a democratic understanding by adopting multiple perspectives on citizenship" (Rapoport, 2009, p. 91). In this context, when the social studies curriculum in Turkey in 2018 is examined, it is seen that citizenship-related competencies are identified and the new developments regarding the rights and responsibilities of citizenship are included. In addition, in the curriculum, "active citizenship" is included in the 4th, 5th, 6th, and 7th grades as a learning field (Ministry of National Education [MEB], 2018).

Citizenship education consists of different elements and conflicts in various contexts. Although the same factors agree on "knowledge-skills and values", there is broad disagreement about each factor's function, nature, and relative importance (Hébert & Sears, 2001). As democratic societies continue to face a variety of social and civic issues, it is vital to carefully define what citizenship is and how education can contribute to the formation of good citizens (Eidhof et al., 2016, p. 125). While research on citizenship education has become a qualified academic sub-discipline, it is interesting to examine the academic changes of citizenship education in the last fifty years (Veugelers & de Groot, 2019, p. 15). "While many citizenship scholars seem broadly aware that "citizenship" is of growing importance in educational curricula, few have attempted any systematic exploration of what this might imply" (Brooks &

Holford, 2009, p. 2). Approaching the research conducted in Turkey on citizenship education with a holistic and systematic perspective is important, especially in order to reveal the current situation of these studies at a national level, as well as to present a projection for the future. In this context, Som and Karataş (2015), which examined the status of citizenship education in primary and secondary education level in Turkey. This research was carried out within the scope of the "Citizenship Education in Europe" report. As a result of the research, the dimensions of the curriculum and organization, student and parent participation at school, student participation in society, assessment and evaluation, and support for teachers and principals were reached. In the research conducted by Kayaalp and Karameşe (2020), which examines the trends in the theses on "citizenship" prepared within the scope of social studies education, the type of theses, the year of publication, the citizenship issues in the theses, their aims, research approaches, working groups, data collection tools, data analysis types, research results are included. In the study conducted by Sönmez et al. (2009), it was tried to reveal the subjects and methods that were taken as a basis in the studies conducted on citizenship and human rights education. Also, Merey et al. (2012) compare the citizenship education in Turkey and in the USA. This comparison is made in terms of learning areas, acquisitions, skills, content and values in the social studies curriculum. In this study, citizenship education was limited within the scope of "social studies". It was tried to produce comments based on integrative findings rather than descriptive features present in articles and theses. Considering the important role of the social studies lesson within the scope of citizenship education, it is crucial to reveal the similarities and differences, relations, tendencies, inclusion/exclusion of the subjects, and the descriptive features in the research. In this study, the purpose is to develop a systematic perspective on the research on citizenship education within the scope of social studies field, reveal the studies' tendency, and reach a synthesis in this direction. In this context, the following sub-problems were attempted to be answered: In the citizenship education research within the scope of social studies courses in Turkey:

➢ How diverse are the research methods used (research model/design, research group, data collection tools, data analysis, suggestions)?

➢ How diverse are the underlying issues?

➢ How have the results been shaped?

Method

In this research, meta-synthesis method was utilized. Meta-synthesis is expressed as a type of research integration study in which findings related to completed qualitative studies are synthesized (Sandelowski & Barroso, 2003, p. 907). Since the synthesized data is beyond the primary research conducted in a qualitative context, it contains differences from other studies (systematic, narrative) and meta-analysis (Mohammed et al., 2016, p. 696). "Qualitative meta-syntheses are more than just compilations and descriptive summaries of thematically interrelated qualitative studies" (Schwarz et al., 2018, p. 29). Meta-synthesis is not a holistic evaluation of qualitative literature on a particular topic or a secondary data analysis of primary data from a number of selected studies; rather, it is defined as an analysis of the findings of these studies (Zimmer, 2006, p. 312). The main purpose of meta-synthesis is to develop both a holistic and new interpretation, which is more robust than the data obtained as a result

of individual research (Finfgeld, 2003, p. 894). "In summary, bringing together qualitative studies in a related area enables the nuances, taken-for-granted assumptions, and textured milieu of varying accounts to be exposed, described and explained in ways that bring fresh insights" (Walsh & Downe, 2005, p. 205). Regarding the synthesis process, the following steps are recommended (Noblit & Hare, 1999, p. 110-112).

> Step 1: Getting Started; identifying an intellectual interest that can be examined qualitatively.
>
> Step 2: Selecting the studies related to the initial interest.
>
> Step 3: Reading the studies.
>
> Step 4: Identifying how the studies are related to each other.
>
> Step 5: Transforming/comparing the data.
>
> Step 6: Synthesizing the transformed data.
>
> Step 7: Interpreting/expressing the synthesis.

In this study, similar to one of Noblit and Hare (1999), first, studies on "citizenship" were collected and reviewed according to certain criteria. Then the reading process was repeated to identify the relationships between the studies, similar and different aspects were identified using perspective-based continuous comparison. A synthesis has been reached based on the obtained findings.

Selection of Studies

There is no consensus on which data sources are best for meta-synthesis process (Finfgeld, 2003, p. 898). One of the problems in conducting qualitative meta-synthesis research is deciding which of thematically similar studies to include in the process. The large sample size (as in any qualitative research) both prevents deep analysis and therefore threatens interpretative validity (Sandelowski et al., 1997, p. 368). It is important in this respect that data sources are selected in sufficient number and quality. In this study, the collection of research data was started on 19.07.2020 and ended on 20.08.2020. In this context, the words citizenship, civics, citizenship education and social studies have been selected as keywords, primarily in English and Turkish. The studies in National Thesis Center of the Council of Higher Education (https://tez.yok.gov.tr) and Ulakbim TRDizin (https://trdizin.gov.tr/) were listed within this context and included in the research according to certain criteria. Primarily, the year range was selected as 2005-2020 within the scope of screening. One of the main reasons for selecting this period of time is the comprehensive revision of social studies curricula in 2005, and approaching 2020, the changes in perception of citizenship and the formation of different conceptual perspectives such as the digital, global, transnational, active, spatial citizenship that emerged in citizenship approaches. In addition, due to the nature of meta-synthesis research, attention has been paid to the fact that the research is carried out with a qualitative or mixed perspective. The criteria in this context are as follows:

Studies should be about citizenship education within the scope of social studies course,

The research should be conducted with qualitative approach,

The study should be published between 2005 and 2020,

Clear, understandable, and unequivocal reporting of scientific processes involved in research.

Figure 1

Selection Process of Studies for Meta-Synthesis
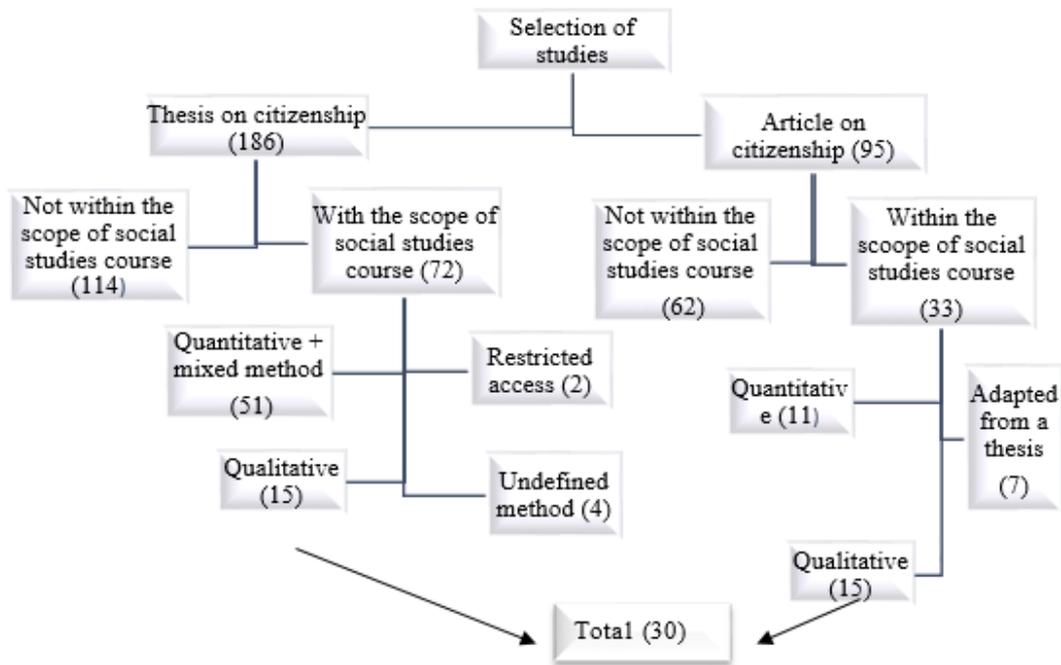
A total of 281 studies were accessed within the scope of citizenship education between the specified years; it has been observed that 105 of these studies were conducted within the scope of the "social studies" course on citizenship education. However, it was seen that 47 of these studies were conducted with a quantitative method, the method section of four of them was not clearly and distinctly reported, two theses were restricted by the author, and seven theses were transformed from thesis to article. Therefore, a total of 30 pieces of research, including 11 master's theses, 4 doctoral dissertations, and 15 articles meeting all criteria were included in the meta-synthesis process. The doctoral dissertations included in the meta-synthesis were coded as "D1, D2, D3…" the master's theses as "M1, M2, M3…", and articles as "A1, A2, A3…"

Data Analysis

The data analysis was carried out in a period of about five months, and during this process, thematic synthesis and descriptive analysis were utilized. In this context, all studies were reviewed by considering the sub-problems of the research during the data analysis; the code, title, author(s), year of publication, type (master's/doctorate), purpose, method, participants, data collection, data analysis, findings (similar/different themes), and results of each study was recorded in a chart. In order to preserve the integrity of each study in the synthesis process, the studies should be analyzed in detail in a balanced way and there should not be an overwhelming amount of detail, which will prevent a usable synthesis (Sandelowski et al., 1997, p. 370). In this direction, all studies were reviewed and coded digitally on a chart, an example of which can be seen in Figure 2.

Figure 2

The First Form Used in The Reviewing Process

Code:	
Research name:	
Researcher's name and surname:	Publication year of the research:
Type of research:	
Purpose of the research:	
Method of research:	
Source of data:	
Data collection tools:	
Data analysis	
Results:	

Then, the second reading process was started and the data transferred to the form was double-checked. After the review of the studies was completed and their data was transferred to the chart developed as a data collection tool, the data in the said form was started to be examined by considering the similarities and differences. In this context, possible codes, candidate sub-themes, and main themes were started to be formed after a third reading was carried out. Afterward, the codes and themes created were presented to expert opinion and the process was repeated and the main/sub-themes were reached.

Ensuring Validity and Reliability

In the validation process of meta-synthesis, the criteria for inclusion, data processing, collection procedures, sample explanation, data analysis and interpretation should be clear (Bondas & Hall, 2007, p. 119). In this context, the method, data collection (inclusion or exclusion criteria in the study), data analysis processes and findings were explained in detail during the validation process. "Clear descriptions of sampling and data analysis decisions will also increase the credibility of findings" (Finfgeld, 2003, p. 902). Therefore, detailed explanations regarding each study included in the study were presented and the findings were also presented in detail. In addition, the forms/documents accessed or prepared during the data collection and analysis process were filed and saved for confirmation when necessary.

Kuckartz (2014) also draws attention to the "cooperative approach called consensual coding" in this process. It emphasizes that consensual coding will increase the quality of the research and increase the reliability of the coding. He states that in the first stage of consensual coding, two or more encoders encode the data independently. In the second step, the coders check the similarities and differences of the codes together and aim to reach a consensus on the most appropriate coding. In terms of reliability, two experts in the field of classroom/social studies education were consulted periodically regarding the codes and themes created in the analysis of the data. Various corrections and arrangements were carried out in the themes by evaluating the opinions

received. In this context, evaluations were made on two randomly selected data sets in the last expert review. Supporting the inferences with various raw data, in other words, with quotations, increases the reliability of the findings (Finfgeld, 2003, p. 902). In this context, the findings obtained are frequently presented with direct quotations.

Results

Descriptive Analysis Results

Research patterns/models, study groups/participants, data collection tools, and data analysis methods taken as a basis in the studies on citizenship education within the scope of social studies course were analyzed. The research designs/models used in the studies examined in this direction are given in Table 1:

Table 1

Research Patterns/Models Used in Studies

Research Patterns/Models	Study
Basic Qualitative/Qualitative Method	M1, M3, M10, A3, A6, A7, A9, A11
Phenomenology	M2, M4, M11, A1, A12, A13, A15
Case Study	D2, M5, M8, A2, A5, A8, A14
Action Research	D3, D4, M6, M7
Historical Research	M9
Narrative Inquiry	D1
Hermeneutic Research	A4
Critical Discourse Analysis	A10

It is seen that the studies examined include narrative inquiry, basic qualitative research, case study, phenomenology, action research, historical research, hermeneutic research, and critical discourse analysis. However, most of the studies were carried out by adopting the basic qualitative research design, case study and phenomenological research. Narrative inquiry, historical research, hermeneutical research, and critical discourse analysis studies were used less frequently.

Descriptive findings regarding the participants/study groups or data sources used in the studies examined are given in Table 2.

Table 2

Data Sources Used in The Studies

Theme	Code	Study
Teacher and Teacher Candidate	Social Studies Teacher	D2, M1, M2, M3, M8, M10, A3, A7, A9, A14
	Social Studies Teacher Candidate	D1, D4, M5, M6, M8, A1, A5, A11, A12, A13, A15
	Expert Lecturer	M11

Expert/Academician	Field Expert/Faculty Member	A7, M11
Student	Secondary School Student	D3, M4, A2, A8
	Primary School Student	M7
Document	Curriculum	A6, A10
	Textbook	M9, A6

It is seen that four themes have emerged: teacher and teacher candidate, expert/academician, student, and document. In this context, social studies teacher candidates ranked first, and social studies teachers ranked second. On the other hand, primary school students and expert lecturers were the least involved in these studies.

Descriptive findings regarding the data collection tools used in the studies are given in Table 3.

Table 3

Data Collection Tools Used in The Studies

Theme	Code	Study
Interview	Semi-Structured Interview Form	D1, D2, D3, M1, M2, M3, M4, M5, M6, M7, M8, M10, A1, A3, A5, A7, A9, A13, A14, A15
	Structured Interview	M11
	Focus Group Meeting	D3
Observation	Video, Record, Photograph	D3, D4, M6
	Participant Observation	M1, M6, A14
Journal	Researcher Journal	D3, D4, M6
	Student Journal	D3, A1
Document	Open-Ended Question Form /Survey	M6, M7, D3, D4, A2, A8, A9, A11, A12
	Document Analysis /Examination	D2, M19, A6, A14
	Course Evaluation Form	D4
	Concept Map Sheet	M7
	Worksheet	M7
	Practice Report	A1

It is seen that the data collection tools used in the studies examined are interview, observation, journal, and documents. In this context, the most frequently used data collection tools were the semi-structured interview form under the interview theme and the open-ended question form/survey under the document theme.

Descriptive findings related to data analysis methods used in studies included in the meta-synthesis process are given in Table 4.

Table 4

Data Analysis Methods Used in The Studies

Theme	Code	Study
Analysis Methods	Content Analysis	D2, D3, D4, M1, M2, M4, M6, M8, M10, A4, A6, A7, A8, A9, A11, A12
	Descriptive Analysis	D4, M4, M5, M6, M7, M9, M11, A2, A3, A5, A11
	Thematic Analysis	D4, M3, A13, A14
	Problem Solution/Narrative Analysis	D1
	Holistic Structural Analysis	D1
	Document Examination	D2
	Phenomenological Analysis	A1
	Critical Discourse Analysis	A11
	Inductive Analysis	A15

It is seen that content analysis, problem solution/narrative analysis, holistic structural analysis, document analysis, thematic analysis, descriptive analysis, inductive analysis, phenomenological analysis, critical discourse analysis, and inductive analysis are used as data analysis methods in the studies examined. In this context, the most frequently used analysis method was content analysis and descriptive analysis.

Findings regarding the recommendations developed in the studies included in the meta-synthesis process are given in Table 5.

Table 5

Recommendations in The Studies

Theme	Code	Study
Recommendations for Researchers	Research Using Mixed and Quantitative Methods	D2, M1, M2, M3, M4, M8, M10, A5, A9
	Research Involving Different Participants	D2, M2, M3, M5, M8, M10, A2, A3
	Research on The Sociocultural Dimension of Citizenship	D2, D3, M1, A2
	International Comparative Research	D2, M9, A2, A5
	Textbook-Based Research	M1, M9, M10
	Curriculum-Based Research	M1, M9, M11
	Research Based on Expert Opinions	M1, M8
	Research Based on Conceptual Problems	M8
Recommendations Educational	Teacher Training	D1, D3, D9, M2, M3, M7, M10, A9, A11, A14
	Curriculum Planning and Change	D3, D9, M1, M2, M3, M5, M7, A13
	Making Changes to the Textbook	D3, M2, M7, M8, A9

Cooperation between Various Institutions	D3, M3, M6, M11, A1
Paying Attention to the Sociocultural Environment	D3, D9, A8, A13
Family Education	M3, M8, A9
Improving School Infrastructure and Physical Conditions	D3, M3
Paying Attention to Out-of-School Activities	D3, M6

It is seen that two themes have emerged in the investigated studies, namely, suggestions for researchers and educational practice. In recommendations for researchers, using mixed and quantitative methods ranked first. Teacher training ranked first in recommendations on educational practices. On the other hand, research based on conceptual problems were the least involved in these studies.

Results of Meta-Synthesis

The results obtained from the studies on citizenship education within the scope of social studies course were synthesized; In this context, the main and sub-themes were reached, direct quotations were made about the themes, and the findings obtained as a result of the meta-synthesis were supported. Three main themes have been reached: citizenship types/approaches, citizenship perception, and components of citizenship education. These main and sub-themes are given in Figure 3.

Figure 3

Main and Sub-Themes Reached as a Result of Meta-Synthesis
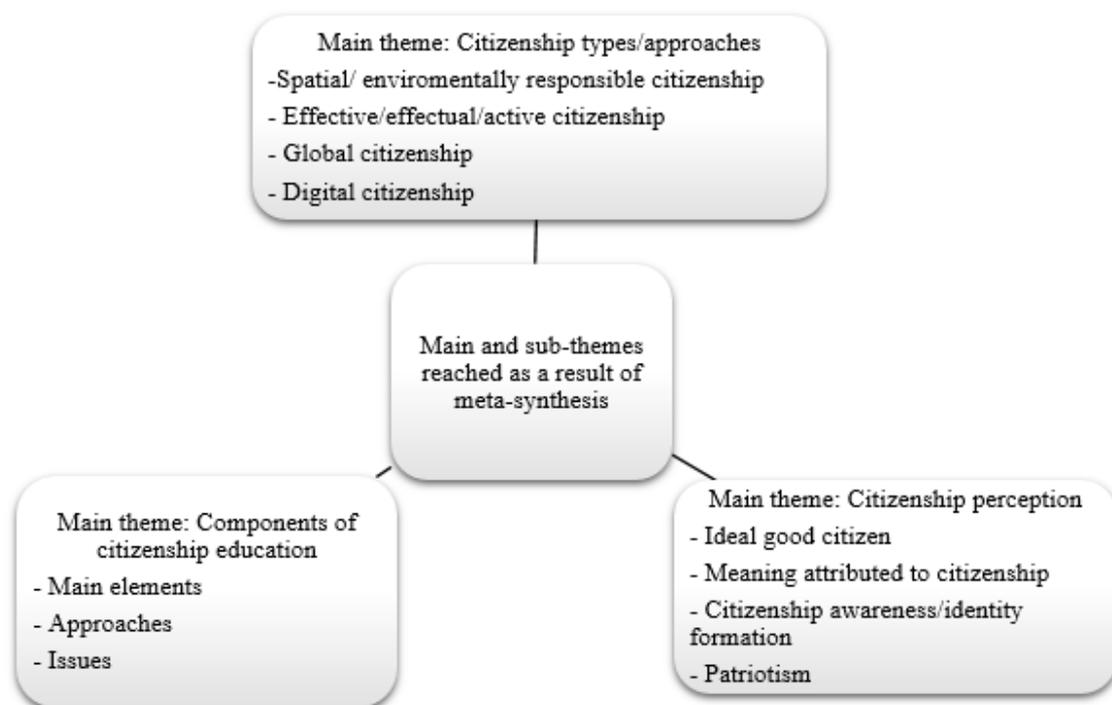
Citizenship Types/Approaches

The sub-themes and related studies obtained regarding the citizenship types/approaches, which is one of the main themes obtained in the meta-synthesis process, are given in Table 6.

Table 6

Sub-Themes and Related Studies on Citizenship Types/Approaches

Main Theme	Sub-Theme	Study
Citizenship Types/ Approaches	Effective/Effectual/Active Citizenship	D4, M8, M10, M11, A1, A9, A14
	Global Citizenship	M3, A3, A5
	Digital Citizenship	M1, M5, A6
	Spatial/Environmentally Responsible Citizenship	M2

As seen in Table 6, citizenship types/approaches are addressed as spatial, environmentally responsible, effective/effectual/active citizenship, global and digital citizenship. In the studies examined, it seems that emphasis is on the characteristics of effective/active citizens (A9), the meaning attributed to the concept of effective/active citizen (M10), and effectual/active citizenship experiences (A1) within the scope of effective/effectual/active citizenship. In general, the characteristics of the effective/active citizen are explained with common characteristics (A9, M10) such as knowing and using their rights and responsibilities, fulfilling citizenship duties, having a love of homeland and nation, and being responsible.

> "The characteristics of effective citizens that we aim to raise in Social Studies and citizenship lessons are individuals who know their rights and responsibilities, use them, participate, express their opinions, are open to criticism, love their nation, and embrace social values" (A9, p. 1574).

In these studies, citizenship rights/responsibilities and fulfillment of citizenship duty are included as the frequently expressed definition of effectual/active citizenship.

> "In my opinion, an active citizen is an effectual person who is aware of his/her rights and responsibilities" (M9, p. 24).

With this, in studies (A1, M11, D3) that emphasize non-governmental organizations, associations or learning by service approaches within the scope of effective/active citizenship, effectual/active citizenship competencies are associated with situations such as social participation, responsibility, finding solutions to social problems, awareness of social problems. For example, in the study coded as A1, the functions of non-governmental organizations are emphasized, and it is stated that these organizations contribute to individuals' taking responsibility, social participation processes, and an understanding that focuses on active citizenship instead of a sense of duty/responsibility based citizenship. In the study coded as D3 within the scope of effective/active citizenship, it is revealed that the approach of learning by providing a service, contributes to the processes such as providing solutions to social problems, raising awareness about these problems, learning and sensitivity that can be done to reach a solution in this context.

> "I am learning what it would be like to be an effectual citizen. I am learning what I can do with other citizens for the country, I would like to find solutions to different problems of the society" (D3, p. 137).

In this direction, another participants' views are as follows:

> "They gather and voice the problems of the people. They talk about the issues... They defend their rights", "I learned that it is necessary to be organized. It is not very effective when

everyone is defending something alone. As a result, more success can be achieved if we concentrate on something collectively" (A1, p. 81).

The studies included in the meta-synthesis process also included the definition, characteristics, perceptions and competencies (M3, A5) of the global citizen. In this sense, it is seen that the participants commonly emphasize universal values (M3, A5). For example, within the scope of global citizenship, the importance of having universal values and acting according to these values is emphasized in the studies coded as M3. The people who accept universal values and share a common culture are emphasized in the study coded as A5. Another common finding that draws attention as much as universal values in the context of global citizenship is the understanding of differences/tolerance (M3) and sensitivity in a global sense (M3, A5). In this context, the views of some participants are as follows:

"In other words, the important thing here is that people may be different; they may have different religious beliefs" (M3, p. 60).

When the studies within the scope of digital citizenship are examined, it is seen that the perception of digital citizenship, definition of digital citizenship, characteristics of digital citizen (M1, M5) and the state of digital citizenship (A6) are included in the curriculum and textbooks. When the participants' perception of digital citizenship is examined, it is seen that they explain it through factors such as spending much time in digital environments, keeping up with technology, using it responsibly, and concepts such as ethics, rights, law and e-government, e-signature, etc. (M1, M5). However, it has been found that the participants' digital citizenship knowledge level is low, they have superficial knowledge on this subject (M1), and there are some inadequacies regarding digital citizenship and its sub-dimensions (A6) in both social studies textbooks and curricula.

Spatial citizenship concept (M2), on the other hand, can be seen as the concepts that are less emphasized than effective/active citizenship, global citizenship and digital citizenship under the main theme of citizenship types/approaches. Within the scope of spatial citizenship (M2), the participants' spatial citizenship, the relationship of spatial citizenship with the social studies course, its place in the program, its distribution to learning areas, its relationship with values/skills, the benefits it provides to students, the problems encountered in the teaching process, and solution suggestions take place.

Citizenship Perception

The sub-themes and studies related to the perception of citizenship, another theme obtained in the meta-synthesis process, are given in Table 7.

Table 7

Sub-Themes and Related Studies on Perception of Citizenship

Main Theme	Sub-Theme	Studies
Citizenship Perception	Meaning Attributed to Citizenship	D1, M4, M1, M6, A11, A12
	Ideal/Good Citizen	D1, M4, A2, A4, A7, A8
	Patriotism	A13
	Citizenship Awareness/ Identity Formation	A7

In the context of citizenship perception, it is seen that the subjects of meaning attributed to citizenship, citizenship awareness/identity construction, good/ideal citizen, patriotism are taken as a basis. When the studies included in the meta-synthesis process are evaluated within the framework of "the meaning attributed to citizenship", it is seen that the participants generally express their opinions within the scope of the definition of the citizen concept and the "meaning" attributed to citizenship. In this sense, the participants define citizenship generally on the basis of belonging/commitment (M1, A11, A12). Within the scope of belonging/commitment, for example; people who are loyal to the national values and the state are among the participants' definition of the citizen concept in the study coded as M1, they consider citizenship as being related to a nation and being a member of the state in the study coded as A11, and belonging is the most frequently addressed metaphor of citizenship in the study coded as A12. Participant opinions in this context are as follows:

> "Citizenship is like a vein in the body. Because it is not easily separated from the body and is connected by a bond. There is always an interaction between them" (A12, p. 2059).

In this direction, another participants' views are as follows:

> "Citizenship means belonging. You belong to the country of which you are a citizen, and you have some responsibilities towards this country. These must be fulfilled. I also have responsibilities to fulfill as a Turkish citizen. It is important to know them. It must be fulfilled. For example, I cast my vote" (A11, p. 417).

Another common understanding that should be taken into account within the framework of the meaning attributed to citizenship is rights and responsibilities. In this context, it is seen that citizenship is explained on the axis of rights and responsibilities/duties by the participants (M1, A11, A12). It is seen that the participants explained citizenship from the perspective of rights and responsibilities to society (A11), expressed the importance of fulfilling their citizenship duties (A12), and saw citizenship as a set of duties (M1). In this context, paying taxes, voting, and military service are considered the most basic civic duties (M1, A11, A12). One of the common points emphasized within the context of the meaning attributed to citizenship is solidarity, unity of feelings and thoughts on a common denominator (M1, A11, A12). For example, while defining citizenship, participants emphasized the common culture and purpose in the study coded as A12. The importance of common ideal and emotion was stated in the study coded as A11, and the category of unity and togetherness came to the fore in the study coded as A12. In this regard, some of the participant views are as follows:

> "Being a Turkish citizen is like being in a family of people with different characteristics. Sometimes you fight, you get offended, but you cannot give up on each other. If something happens to someone, everyone becomes one heart. In short, being a Turkish citizen means being a family" (A11, p. 417).

In the studies examined, within the scope of the concept of "good/ideal citizen," it is seen that participants' definition of good citizen, their examples, perceptions (A2, A4, A8) and the characteristics of good citizens (M4) are emphasized. In general, it is seen that the participants express their definitions of good citizenship and their explanations about the qualities that a good citizen should have on the axis of "civic duty" and "value" rather than citizenship rights and active participation. In the studies coded as D1, M4, A4, A8, it was found that within the scope of the concept of "good citizen," the participants emphasized social and moral values approved by the society,

stated loving their state-nation, loyalty to their homeland, nation and national values as the most basic citizenship characteristic. On the other hand, there are also discourses reflecting traditional citizenship that obey the laws, pay taxes, vote (A2), in other words, see citizenship duties as more important than citizenship rights (A2, M4). For example, in the study coded as A2, participants' definitions of "good citizen" mostly emphasize traditional citizenship rather than active citizenship. Similarly, very few participants in the study coded as D1 explained good citizenship by also associating it with citizenship rights, next to citizenship duties. In addition, it is seen in the findings of the research that a tendency towards citizenship attracts more attention at the national level and the emphasis on the understanding of citizenship at the universal or global level is relatively low. In this context, in the study coded as M4, it was found that although most of the participants consider the issues that can be considered in the global framework as one of the basic goals of citizenship education, they explain the objectives that students should achieve on a national rather than global emphasis. Similarly, in the study coded as A2, it is stated that Turkish students interpret the good citizen with a more nationalist perspective compared to Russian students, while Russian students explained it with a more universal approach.

> "People can be good citizens by acting properly where necessary. For example, they follow the rules, do not harm the environment, and do not disturb people with their behavior" (A2, p. 183).

> "A good citizen does his military duty. Because he must learn how to defend the country" (A2, p. 188).

> "My teachers explain that in order to be a good citizen, one must pay taxes. Voting is also among the characteristics of a good citizen" (A2, p. 188).

Within the scope of the concept of patriotism, participants' perspectives on patriotism perceptions, characteristics of the patriotic people, patriotism education are included (A13). In this direction, in both studies, the participants explained patriotism on common elements such as commitment, fulfilling duties and responsibilities, working, responsibility and loving. In both studies, it is stated that the participants had a constructive attitude towards patriotism. In this context, some of the participants' views are as follows:

> "When I think of patriotism, the first classical phrase that comes to my mind is to love your homeland, to be loyal to it, and not to contradict what the society wants, what the state wants" (A13, p. 981).

> "Fulfilling the requirements of being a citizen… is fulfilling duties and responsibilities, tax, military service. When I think of patriotism, the first thing that comes to my mind is to love your country, but loving your country is not enough..." (A13, p. 984).

Components of Citizenship Education

The sub-themes and codes created on the components of citizenship education, another of the themes obtained in the light of the studies examined, and the related studies, are given in Table 8.

Table 8

Sub-Themes and Related Studies on The Components Of Citizenship Education

Main Theme	Sub-Themes	Codes	Studies
Components of Citizenship Education	Basic Elements in Citizenship Education	Curricula	D2, M8, A6, A10
		Textbooks	D2, M9, A6
		Teaching Process	D2, A9
		Definition/Purpose/Importance	D2, A9
	Approaches Used in Citizenship Education	Functionality of Associations/Non-Governmental Organizations	M11, A1
		Learning by Serving	D3
		Activity-Based Teaching	M6
	Problems in Citizenship Education	Subject-Based Inadequacies, Curriculum-Based Inadequacies, Incorrect Teaching of Concepts And Misconceptions, Societal Problems, İnstructional Problems, Student-Based Problems	D2, A9, M7, A10, A14

Under the main theme of components of citizenship education, three sub-themes were generated: basic elements in citizenship education, approaches in citizenship education, and problems in citizenship education.

In the first sub-theme named "Basic elements in citizenship education," the definition, objectives, and importance (D2, A9) of citizenship education take place. In general, the objectives of citizenship education are shaped on the basis of value and skills by the participants (D2, A9). When the opinions of the participants on the definition of citizenship education (D2) are examined, it is seen that they attribute it meanings similar to those they attributed to citizenship and that a citizenship education understanding based on duty/responsibility/rights is formed in this sense. In addition to this, the fact that citizenship education enables the individual to exist and socialize in society has been put forward as a common definition of citizenship education in both studies. The methods, techniques, activities, and tools used in citizenship education (D2, A9) are included in the implementation processes of the course, which is one of the elements within the scope of the first sub-theme. In this context, it is seen that there are alternatives such as lecture, question and answer, case study, drama, discussion, brainstorming, collaborative work, use of current events, use of newspaper news, game playing, role playing, use of primary sources, project, selection, drama, trip-observation, demonstration, preparing a class newspaper, preparing a class contract, and performance homework.

On the other hand, although there are many common points (lecture, question-answer, discussion, etc.) in terms of the methods and techniques used by the participants in the studies, there is no consensus on the most preferred and the least preferred methods and techniques. For example, the most frequently used elements in the study coded as D2 are question-answer and lecture methods, while the least used elements are demonstration and six thinking hats methods. Another topic under the sub-theme of

basic elements in citizenship education is the curriculum (D2, M9, A6, A10) and textbooks (D2, M9, A6). Within the scope of the curriculum, it is seen that the program generally focuses on the "objective" element. In this direction, sufficiency of the objectives, their applicability in daily life, the necessary methods and techniques in order to achieve them successfully, and their numbers/rates (D2, M8, A6) are included. Attention was drawn to the issues such as the objectives not being life-oriented, not meeting social needs, being abstract, and ignoring student characteristics. In the study coded as A10, which differs from other studies conducted on curriculum, instead of examining the basic elements of the curriculum, an evaluation was made in the context of political/ideological/neoliberal policies, and traditional citizenship/modern citizenship processes are introduced.

Another sub-theme that draws attention among the components of citizenship education is "approaches used in citizenship education." In this context, studies were conducted on learning by serving (D3), activity-based teaching (M6), and associations/non I governmental organizations (M11, A1). Contribution of learning by serving to good citizenship perception and citizenship education (D3), citizen competencies and contribution to responsible citizenship within the scope of activity-based education (M6) are emphasized. Within the scope of associations/non-governmental organizations, effective citizenship experiences and citizen raising processes (A1, M11) were emphasized.

When the last sub-theme, "problems experienced in citizenship education" is evaluated, it is seen that it is explained under the following headings: subject-based inadequacies (D2), curriculum-based inadequacies (D2, A9, A10), incorrect teaching of concepts and misconceptions (D2, M7), societal problems (D2, A9), instructional problems (D2, A9), and student-based problems (A9). In this context, subject-based inadequacies are explained as the inadequacy of the subjects, the problems experienced due to the nature of the subjects, the difficulty of including some controversial issues in the classroom, the uninteresting nature of the subjects, and their being far from daily life. Program-based inadequacies are expressed as the incompatibility of the objectives to the students' level, the necessity of suitable materials for the curriculum, the activities not being clear, not being suitable for the environment, deficiencies regarding the applicability of the objectives, insufficient duration of classes, and the objectives remaining in the knowledge level. The inadequacies based on social problems are expressed as the incompatibility between the citizenship models that families want and the one in the curriculum, the inappropriate examples in the environment and media, inadequate socio-economic conditions, misconceptions in the society, and regional problems. On the other hand, instructional problems were expressed as lack of resources, the pressure created by the examination system, discipline problems in schools, crowded classrooms, inadequate facilities, lack of classroom activities, and inadequate social participation activities. Student-based problems were explained as negative student attitudes, lack of respect and responsibility, giving importance to exam-oriented subjects, and not following social problems.

Discussion and Conclusion

In many empirical studies, it has been observed that there are different understandings of citizenship and citizenship education, and these differences are also

present among teachers, school leaders, parents, and students (Veugelers, 2011, p. 213). Brooks and Holford (2009) explain the main debates in citizenship education research as the role of schools and lifelong learning, the content of citizenship education curriculum, responding to social divisions, and national or transnational citizenship. "Citizenship is now a central concept in both politics and research when examining the role of education in developing students' identity" (Veugelers & de Groot, 2019, p. 14). In this study, the purpose was to develop a systematic perspective on the studies based on citizenship education within the scope of social studies discipline and to reach a synthesis in this direction.

Mixed-method and basic qualitative research methods were mostly used in the studies; methods such as culture analysis, grounded theory, or ethnographic research have never been encountered. This may be due to the reasons such as the length of time these methods require, inability to associate them with the subject area of citizenship, requiring high level expertise, or the possibility of facing a large data volume. In some studies, no method was specified; only the concept of "qualitative research" was used. It is possible that this situation is caused by the lack of information about qualitative researches or overgeneralization. The fact that the majority of the studies examined were conducted with teachers or teacher candidates is likely to be due to the easier access to the participants compared to students. In addition, the most frequently used data collection tool was the semi-structured interview form and the least used one was observation. Difficulties in quantification, probable difficulties in entering the research field, the high number of participants, and the fact that it is more demanding in terms of time and money than the interview method can be seen as factors resulting in this situation.

In the light of the research examined, it has been found that the focus of the citizenship types/approaches is directed towards effectual/active citizenship, global citizenship, and digital citizenship, respectively. However, one of the striking points is that the intense interest that focuses on effectual/active, global, and digital citizenship does not focus on alternative types such as spatial or environmentally responsible citizenship. At the same time, the concept of citizenship is continually expanding, deepening, and diversifying. It is seen that "extended" citizenship is now linked not only to the national state but also to regional regulations (e.g., European citizenship) and even to the whole world through the concept of global citizenship, while "extended" citizenship means expanding from the political level to the social and cultural level (Veugelers & de Groot, 2019, p. 14). In this context, Schugurensky and Myers (2003) offer a perspective for 21st century citizenship education that ranges from passive to active citizenship, from national to ecological/world citizenship, from recognizing cultural diversity to promoting intercultural societies, from public sphere to inclusion, from fundamentalism to peacebuilding, from school-based citizenship to learning communities, from formal to independent democratic citizenship. In this context, it is seen that concepts such as multi/dual citizenship that can be focused on in the context of social studies, status or practice citizenship, post-national citizenship, feminist citizenship (Ünal, 2019); liberal and republican citizenship (Abowitz & Harnish, 2006), cosmopolitan citizenship (Hutchings & Dannreuther, 1999; Linklater, 1998); regional citizenship (Hettne, 2000); transnational citizenship (Bauböck, 1994; Hammar, 1996; Ünal, 2019) are not included. Whereas, considering the deepening and expanding nature

of the concept of citizenship, it does not seem possible for the social studies course to exist without these processes of change.

In the theme of citizenship types and approaches, it is seen that the definition, characteristics, and competencies of citizenship types/approaches are examined. In this context, one of the points that should be noted is that the current citizenship understanding of the participants follows a course in parallel with the traditional understanding of citizenship, such as fulfilling citizenship duties even in "effectual/active" citizenship, prioritizing duties rather than rights, love of homeland, nation, and responsibility. Similarly, within the scope of the citizenship perception theme, it is seen that they focus on the definition, characteristics, and competencies of the meaning of good/ideal citizen that are frequently attributed to citizenship. Similar to the previous main theme, it is seen that participants express their opinions on the axis of belonging, loyalty, common thought and feeling unity, rights/responsibilities and duty. In general, it is stated that value/tradition-oriented citizenship understanding is addressed more frequently than active/participatory and critical citizenship understanding. Whereas, since citizenship is a complex concept that includes multiple dimensions, it should not be built only on concepts such as duty/right/responsibility/commitment or belonging. The concept of citizenship has multiple components, ranging from a legal status (e.g., rights and/or passport) to a range of behaviors (e.g., voting and/or volunteering), rights (e.g., social benefits payments) and expectations (e.g., civil norms regarding tax payment) (Keating, 2016, p. 36). In this context, Hébert and Sears (2001) draw attention to the civil, political, socio-economic, and cultural aspects. Civic sphere expresses a way of life in which citizens define and follow common goals related to their understanding of democratic society; political sphere, the right to vote and political participation, free political elections; the socio-economic sphere, the relationship between individuals in the society, the definition of social and economic rights, economic welfare rights; the cultural sphere, the way societies react to the increasing cultural diversity, other cultures, global migration, and diversity (Hébert & Sears, 2001). Therefore, as a multi-dimensional and layered element, it is important to enrich the meaning attributed to the ideal/good citizen and citizenship in terms of being participatory and critical by separating from the traditional "passive" approach.

In these studies, it can be seen that there is a citizenship perspective that emphasizes social/moral values approved by the society, love for the homeland-nation, adherence to national values, that is more nationalist than universal, more socialist than individualistic. In this context, it is controversial how functional a citizenship perception and education design will be in responding to different citizenship perspectives in the rapidly changing and transforming world. For example, according to Dağ (2013, p. 110) "… in societies where society has ontological priority to the individual - like ours - the foundation of citizenship by cleansing from national identity/nationality can cause shrinkage of the collective consciousness and destroy the common bond that holds the society together." In addition, citizenship education has always aimed to help base society on a single national culture defined as "republican," principles of freedom, equality, fraternity, and human rights (Osler & Starkey, 2004, p. 4). Three centuries after the French Revolution, virtually all individuals in the world are citizens of a particular nation-state (affiliated with or claiming to be democracy), and a small

proportion of the world's population not covered by this label has been identified as "stateless" (Fischman & Haas, 2012, p. 170). Therefore, while some studies find the understanding of citizenship shaped by a nationalist perspective to be "natural and necessary" by its nature, in some studies it can be seen that concepts such as cultural diversity, global citizenship, and transnationalism come to the fore due to the weakening of the nation-state understanding. It is stated that globalization shows citizenship approaches need to be reevaluated; the concept of citizenship has changed as citizens acquired greater opportunities to act in new international contexts (Osler & Starkey, 2005, p. 8). In this context, different approaches to citizenship such as an understanding of citizenship interwoven with national boundaries through belonging/loyalty or global citizenship can have an effect on citizenship education as well as citizenship perception. Whereas the concept of "education for citizenship" contains a number of uncertainties and tensions regarding different interpretations of the concept of "citizenship" (McLaughlin, 1992), and the purpose of citizenship education is considered "controversial" (Clark & Case, 1999). However, there is a lack of causal and comparative research to reveal the variables that cause such a perception. For example, in a comparative research conducted on Korea, Germany, and the USA, it was seen that the legal and institutional dimension of citizenship in Germany and Korea is also socialist compared to the individualist and liberal understanding in the USA (Kim & Yang, 2013). The main factors in the fact that participants in the studies carried out in Turkey have a national, traditionalist, and value-oriented understanding of citizenship may be economical, geographical, cultural, historical, and psychological factors that are effective in citizenship formation.

Within the scope of the components of citizenship education, on the other hand, it is seen that the participants' opinions on citizenship education are similar to the meanings they attribute to citizenship. In the application processes of the course, seeing the use of many different methods and techniques such as lecture, question and answer, case study method, drama, discussion, brainstorming technique, six thinking hats method, cooperative learning, use of current events, etc. can be regarded as a positive situation. Citizenship education provides students in schools with meaningful learning experiences such as role play, debates, mock trials, classroom discussions, student councils, service learning and other active learning to facilitate their development as political and social responsibility (Homana et al., 2006, p. 3). At the same time, it is noteworthy that a more "participatory" citizenship understanding is formed in studies where alternative approaches such as non-governmental organizations/associations or learning by service are used. Similarly, when the literature is examined, the primary purpose of learning by service is focused on facilitating citizenship education while preparing to live and actively participate in a democratic society (Brandell & Hinck, 1997); it can be an effective civic education method that is a requirement for the survival of our democracy (Battistoni, 1997), and it is stated that non-governmental organizations contribute to the strengthening of active citizenship (Keyman, 2004). Under the sub-theme of problems experienced in citizenship education, there are subject area inadequacies, curriculum-based inadequacies, incorrect teaching of concepts and misconceptions, social problems/instructional problems, and student-based problems. The main point to be noted here is that the problems experienced in citizenship education are given less place than the basic elements and approaches used in

citizenship education. Another striking result is the differences between the problems experienced in citizenship education and the solutions developed for these problems.

Recommendations

Based on the results of this study, it is important to reveal the current tendency towards citizenship education especially within the scope of social studies course. In this sense, different citizenship approaches that are gradually deepening, developing, and diversifying can be considered a focal point in future studies.

One of the points that should be noted is that the current citizenship understanding of the participants follows a course in parallel with the traditional understanding of citizenship, such as fulfilling citizenship duties even in "effectual/active" citizenship, prioritizing duties rather than rights, love of homeland, nation, and responsibility. Alternative approaches that support the process of being a participatory and critical citizen can be used instead of the traditional passive and value-oriented citizenship understanding.

In these studies, it can be seen that there is a citizenship perspective that emphasizes social/moral values approved by the society, love for the homeland-nation, adherence to national values, that is more nationalist than universal, more socialist than individualistic. It can be suggested to examine the factors that cause the formation of nationalist and socialist citizenship perception, which is frequently encountered in the studies examined. In addition, comparative studies can be carried out by expanding the databases.

Conflicts of Interest

There are no conflicts of interest in this study.

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A Conceptual Analysis of the Role of Knowledge Management in Knowledge Leadership

Bilgi Yönetiminde Bilgi Liderliğinin Rolü Üzerine Kavramsal Bir Analiz

Ender KAZAK*

ABSTRACT: Knowledge-based organizational structures need leaders who manage and ensure the effectiveness of knowledge. Knowledge leaders encourage employees to participate in knowledge management processes, contribute to adopting knowledge management as part of organizational culture, and lead knowledge management activities by choosing the most appropriate infrastructure and technology. Schools are knowledge-intensive organizations that possess a large number of information areas that must be managed. The main actors who are responsible for managing these areas of knowledge are school principals. This situation requires school principals to be competent in terms of both knowledge management and leadership skills. The purpose of this study is to make a conceptual evaluation of the relationship between knowledge leadership and knowledge management. To achieve this aim, the relationships between knowledge leadership and knowledge management were examined, a conceptual evaluation of these relationships was made, and the importance of knowledge leadership both at the organizational level and the school level was emphasized. Designed as a theoretical literature review, it investigates the hypothesis that knowledge leaders undertake important roles in knowledge management processes. Therefore, the study is important for understanding the role of knowledge leaders in knowledge management.

Keywords: Knowledge management, knowledge leadership, school principal.

ÖZ: Bilgiye dayanan örgüt yapıları, bilginin etkiliğini sağlayacak ve yönetecek liderlere gereksinim duyarlar. Bilgi liderleri, bilgi yönetimi sürecinde işgörenlerin katılımını sağlayan, bilgi yönetiminin bir örgüt kültürü olarak yerleşmesine katkıda bulunan ve bilgi yönetimi için uygun alt yapı ve teknolojinin seçimini sağlayarak bilgi yönetimi faaliyetlerini yönlendiren kişilerdir. Okullar, bilgi yoğun örgütlerdir ve yönetilmesi gereken çok sayıda bilginin varlığından söz edilebilir. Bu bilgileri yönetecek baş aktörler ise okul müdürleridir. Bu durum, okul müdürlerinin hem bilgi yönetimi hem de liderlik becerileri açısından yetkin olmasını gerektirmektedir. Bu çalışmanın amacı, bilgi liderliği ile bilgi yönetimi arasındaki ilişkiyi irdelemek ve bu ilişkilere yönelik kavramsal bir değerlendirme yapmaktır. Bu amaç doğrultusunda bilgi liderliği ile bilgi yönetimi arasındaki ilişkiler incelenmiş, bu ilişkilere ilişkin kavramsal bir değerlendirme yapılmış ve hem örgütsel hem de okul düzeyinde bilgi liderliğinin önemi vurgulanmıştır. Çalışma, alanyazın taraması şeklinde gerçekleştirilmiştir. Çalışmanın varsayımı; bilgi yönetimi süreçlerinde bilgi liderlerinin önemli rol ve sorumlulukları olduğu yönündedir. Bu nedenle çalışma, bilgi yönetiminde bilgi liderlerinin rolünün anlaşılması açısından önemlidir.

Anahtar kelimeler: Bilgi yönetimi, bilgi liderliği, okul müdürü.

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Modern society is based on knowledge. Today, knowledge is the most sought-after commodity, the most valuable resource of an organization, and a means of competitive advantage. Knowledge is the driving force that enlivens the efficient use of all resources within the organization. Knowledge is the only resource which does not decrease by sharing; in contrast, by using and sharing it, the organizations' general knowledge expands (Micić, 2015). However, knowledge must be managed. Organizations need effective knowledge management to continue to compete. In this sense, leadership plays an important role. Leadership should exist at all organizational levels and encourage knowledge management actions. If leaders do not have direct support at all levels, it is difficult for knowledge management actions to reach the desired performance level (Besen et al., 2017). The role of leadership in knowledge management practices is crucial to motivate employees to share knowledge (Mas-Machuca, 2014). Studies show that both the effectiveness of leaders and knowledge sharing behavior affect the job performance of employees within an organization positively (Sönmez Çakır & Adıgüzel, 2020). The implementation of knowledge management in schools can help school leaders benefit from best practices in terms of problem-solving, retaining information for future use, and filling the knowledge gap in development plans for school improvement (Cheng et al., 2017).

Method

Research Model

This study was designed as a descriptive research in survey model. Survey models are research approaches which aim to describe a past or present situation in the way it occurs (Karasar, 1999). In this study, a descriptive survey model was preferred because the concepts of knowledge management and knowledge leadership, and the relationship between them, were discussed in the light of related studies.

Purpose of the Research

The main purpose of this study was to discuss the role of knowledge leaders in knowledge management theoretically. In line with this aim, the relationships between knowledge leadership and knowledge management were examined, a conceptual evaluation of these relationships was made, and the importance of knowledge leadership both at the organizational level and the school level was emphasized. The study was carried out as a literature review. Following the discussion of the concepts from an organizational point of view, their relationship with the school and the educational environment was addressed. In the study, the concepts of knowledge, knowledge leadership, and knowledge management were explained, and their relationship with each other was described. In addition, based on related literature, the relationship between knowledge management and knowledge leadership was analyzed. It was hypothesized that knowledge leaders had important roles to play in knowledge management processes.

Ethical Procedures

There is no ethics committee report for the research, as the data in the research is obtained from the documents. However, the study has acted in accordance with research and publication ethics.

Importance of the Study

In the literature, it is possible to find studies dealing with the relationship between knowledge management and different leadership styles. However, it is possible to claim that the most appropriate leadership style for knowledge management is knowledge leadership. Definitions supporting this view are presented in the following parts. Studies on the relationship between these two concepts are limited, though. Therefore, the aim of this study was to identify the role of knowledge leaders in knowledge management. This is important in terms of emphasizing the necessity for, and the importance of, knowledge leadership for organizations in general, and schools in particular. Additionally, this study can be considered important in improving the functioning of knowledge management processes, and contributing to the work.

The Concept of Knowledge and its Importance for Organizations

Before the definition of the concept of knowledge is made, a brief discussion will be presented about the concepts of data and information as they are frequently confused with knowledge and used interchangeably. Data are objective but unrelated, uninterpreted observations and facts about events. Data alone do not have any meaning. They only explain a certain part of the events under consideration and are not reliable in terms of decisions since they do not involve interpretation or evaluation (Karabetyan, 2019). Data can be considered a type of information which has an observable, measurable and calculable value. Information has a more specific framework than data, and includes data, comments, and transactions. In other words, information is data which has been filtered and processed.

On the other hand, knowledge is information created by the combination of experiments, experiences, comments, or ideas. Knowledge is high-value information ready to be applied (Aktan & Vural, 2016). Briefly, data are "raw facts", information is "organized, shaped data sets", and knowledge is "information that has gained meaning" (Bhatt, 2002, 30-38; as cited in Zaim et al., 2012). In the broadest sense, knowledge refers to the ability to transform data and information into an effective activity. There are various definitions and conceptualizations of knowledge. In related literature, knowledge is anything that is known. Concrete or intangible facts learned as a result of knowing are interpreted as forms of data and the establishment of useful relationships between pieces of knowledge (Memisoglu, 2016). What makes the beneficial relationship established between interpreted data and knowledge pieces meaningful and effective is the sharing of this information. For this purpose, organizations are expected to ensure that individuals cooperate in knowledge sharing and show performance in this regard (Ainissyifa, 2012). Knowledge sharing is the activity of transferring or disseminating knowledge from a person, group or organization, to another person, group or organization (Sönmez Çakır & Adıgüzel, 2020). When knowledge sharing is considered at the individual level, it can be horizontal and vertical in the organizational hierarchy (Muhammed & Zaim, 2020). Knowledge is of the greatest value when it is shared. This sharing is necessary both for use and for the solution of future problems and involves obtaining new information by loading it into organizational memory. Sharing information with both employees and service consumers increases efficiency and contributes to the production of new information and solutions (Sakarya, 2006). In other words, data, information and the resulting knowledge sharing within or between

organizations make it meaningful and effective. In this sense, the issue of what kind of knowledge can be shared occurs to be discussed.

Generally, there are two types of knowledge-explicit knowledge and tacit knowledge. Explicit knowledge is the knowledge expressed in an official language which is recorded and well-documented. It is published and shared as primary and secondary sources of knowledge; it can also be transmitted, transferred, and become available. It can be captured, presented, encoded, and shared. It can be conveyed in a formal and systematic language. On the other hand, tacit knowledge is the knowledge people carry in their minds. It covers personal insights, perceptions, expert opinions, techniques, and skills. Since tacit knowledge is purely personal and specific to a field, it is not transmitted into writing and can only be shared verbally. Tacit knowledge is personal and context-specific, and therefore is difficult to formalize and convey. This knowledge is very useful, but it is concealed by the individual and is not easily transmitted (Dhamdhere, 2015). The transfer of tacit knowledge is based on transparent and reliable relationships. Trust is critical when different groups who believe in the power of knowledge come together to share or create knowledge (Williams, 2012). Transferring tacit knowledge is extremely important for the survival of the organization (Sprinkle & Urick, 2018). Studies show a positive relationship between implicit knowledge and both corporate and individual performance (Zaim et al., 2012). Explicit knowledge can be easily shared among everyone in the organization. The most difficult form of knowledge management is the management of tacit knowledge. Tacit knowledge can be considered as intuitive knowledge guided by experience. The core of the concept of knowledge management is to help individuals to be in contact with each other to share tacit knowledge or to transform the tacit knowledge into explicit knowledge which can be used by the whole organization (Chinowsky & Carrillo, 2007). Orphan knowledge is not lost in the organization; instead, it is the knowledge that is forgotten, ignored or neglected, and not used within an organization. Orphan knowledge differs from tacit knowledge in that sense. People are aware of the tacit knowledge, while they are not aware of the existence of orphan knowledge (Durna & Demirel, 2008).

Therefore, a sound knowledge management system should handle all kinds of knowledge, both tacit and explicit. This is the biggest requirement and challenge when it comes to implementing a knowledge management process (Chu et al., 2011). Studies show that transferring knowledge in face-to-face meetings can produce more effective results, and mutual knowledge transfer can guarantee its applicability (Kaiser et al., 2016). Schools are one of the organizations where knowledge transfer is most common through face-to-face interaction. This is because, in a school, knowledge is shared through person-to-person interaction, often based on conversations between professional groups in social networks rather than through the use of information technology. In other words, teachers' communication and knowledge sharing with their colleagues, the coding of their teaching information in documents, is usually carried out on a person-to-person basis rather than through the school intranet (Cheng et al., 2017).

Knowledge and learning are moving factors for business success and competitiveness, especially in knowledge-intensive organizations whose main service is to create and sell knowledge (Mas-Machuca, 2014). Educational institutions are knowledge-intensive organizations. In daily educational activities, schools must acquire,

store, share, use and produce information. In other words, they should be able to manage knowledge in order to educate their students effectively (Özmen, 2010). As information and knowledge have become an important productivity factor for the modern school system, society will inevitably demand the intensive management of information and knowledge. Therefore, how to manage knowledge will become an important issue for schools soon (Kurnıawan, 2014). Schools -especially teachers- are known as not generous in terms of sharing knowledge, although they are involved in the learning process. There are established structural and normative reasons for this situation that schools have acquired as part of their historical and evolutionary process. Due to their work, teachers have little time to get together throughout the day to share their ideas and improve their teaching. Most of the time, teachers do not tend to give and receive information. Indeed, in many cases, school cultures discourage information sharing because of some common beliefs such as "Who does s/he think s/he is? Others won't be interested in what I'm doing" (Fullan, 2002). However, in a climate of increased external and internal pressures, the need for the knowledge of teachers and administrators has never been so great, but it is a fact that there are dangers of excessive knowledge overload. Schools, like most organizations, must acquire knowledge to increase teacher competence. Therefore, there are many types of information that need to be managed in schools (Chu et al., 2011).

Knowledge and leadership in modern business are the two most valuable resources of an organization. A leader's behavior, values, attitudes, characteristics, skills, and abilities greatly affect the creation of organizational knowledge. A leader has an important role in creating an environment that encourages individual and team learning. A leader should support and encourage a culture of creating, sharing, using, promoting, and acquiring new knowledge in organizations, that is, s/he should be involved in organizational knowledge management. In brief, a leader has a crucial role in organizational knowledge management (Micić, 2015). This means that leaders must manage knowledge.

Knowledge Management, its Purpose and Benefits

Knowledge management is closely related to many disciplines such as psychology and economics and is the ultimate advantage in today's organizations. Knowledge management has a very positive effect on organizational processes. The aim is to capture knowledge and enable employees, as knowledge managers, to share this information. If a manager can capture and spread knowledge within the organization, the benefits s/he will gain are quite high (Akyazıcı, 2019). Knowledge management is thought to be a concept that can provide a competitive advantage, primarily for commercial organizations. However, knowledge management processes such as creating, capturing, sharing, and using knowledge are not specific to business environments. Good knowledge management practices can benefit all organizations. One type of such organizations is knowledge-intensive schools (Muratoğlu, 2005). Although knowledge management is an area that has been growing in the last two decades, little has been written about it in the context of education. This is surprising as education is all about the creation and application of knowledge (Ibrahim & Salleh, 2019).

Knowledge management can be considered the process of transforming data and information into knowledge and then disseminating it within the organization (Lakshman, 2009). Knowledge management is the organization of an organization's knowledge through a systematic and organization-specific process which includes refreshing, sharing, applying, maintaining, organizing, and obtaining the tacit or explicit knowledge of employees in such a way that it will be possible to create value and increase organizational performance (Allee, 1997; as cited in Montgomery, 2012). Knowledge management processes include the acquisition, creation, refinement, storage, transfer, sharing, and use of information. The function of knowledge management in organizations is to run these processes, develop systems and methods to support them, and motivate people to participate in them (King, 2009; Kurnıawan, 2014). It is inevitable to use information technologies in the process of knowledge management because the conveniences technology brought have revolutionized the low-cost and fast storage, share and production of knowledge in organizations. However, technology alone is not sufficient enough for knowledge management practices in organizations, and it is a necessity for effective knowledge management (Özdemirci & Aydın, 2007). Knowledge management in different organizations can serve different organizational purposes. For example, some organizations focus on customer knowledge; some deal with knowledge capital, the others might be concerned with providing enhanced access to knowledge (Rowley, 2000). Since the knowledge management process in secondary education and higher education will operate at different levels and in different qualities, the objectives may also differ. However, the common point at all levels is that the organization aims to achieve its goals, maintain its competitive power, and make its performance effective. In summary, it is possible to state that leadership roles, leadership types, leadership abilities, and demographic characteristics can affect leadership roles in knowledge management (Doğan & Kılıç, 2009).

The purpose of knowledge management is to improve the quality of people's contributions to their organization, to negotiate effectively, and to learn from others by helping people understand the context of the organization, take responsibility, cooperate, and share what they know and learn (Chu et al., 2011). The objectives of knowledge management are the development and exploitation of the organization's information assets for the realization of better information activities, improved organizational behavior, better decisions, and improved corporate performance (King, 2009). The benefits of knowledge management are evaluated in terms of the efficient use of information, storing intellectual capital, enhancing activities, strategic planning, improving organizational memory, gaining flexibility, gathering best practices, enhancing the likelihood of success, and efficient cooperation between organizations. The greatest benefit of knowledge management is that knowledge is easily shared among staff and that information is not lost if someone goes on vacation, becomes ill, or leaves the organization (Martin 2003; as cited in Mohajan, 2017).

Knowledge management is based on the premise that, just as people cannot use the full potential of their brains, organizations cannot use all the information they have. Through knowledge management, organizations try to create or obtain useful knowledge and make it available to those who can use it in the right place and at the right time to affect corporate performance. It is believed that an organization will gain

great benefits if its effective use of knowledge can be increased (King, 2009). Effective knowledge management requires new roles and responsibilities for both managers and employees. It is a continuous social process in managing the organization's knowledge assets, clarifying the objectives in the event of uncertainty, encouraging mutual learning and continuous skill development, and developing trust between stakeholders, both inside and outside the organization. Employees who take responsibility for making and creating meaning need to understand and discuss their work. They need to look at their work from different perspectives and encourage and invite critical thinking (Carroll et al., 2003).

Knowledge management is being newly experienced in schools. Schools that take the initiative to share knowledge to achieve their goals ascertain that it offers excellent value. The aim is to use knowledge management within the school and facilitate a knowledge-based system for academic purposes (Kurnıawan, 2014). Schools, like most organizations, must acquire knowledge to improve decision-making and innovation, especially in an age of increasing internal and external pressure for change and improvement. Schools can use knowledge management as a strategy to improve their competitive performance (Chu et al., 2011). Knowledge management helps educational institutes improve their capacity to obtain and share information and knowledge and apply these to problem-solving and support the research and continual improvement of their work. Knowledge management of the educational system must reflect and include information at all levels starting from management level to student level, to improve employees' professional knowledge and achieve quality of lecturers and students (Dhamdhere, 2015). Schools are the places where knowledge is mostly known, used and new information is produced.

For this reason, knowledge management can easily be conducted at schools. It is necessary for a school executive to be interested in knowledge and aim at a knowledge-based administration. The same is valid for teachers as they are the ones who will accomplish this process. Both executors and teachers should become the people who continuously search, learn, and follow the knowledge changing constantly. Knowledge management process in a school should be supported with technology and computer, and sufficient number of computers and Internet networks should be available (Güçlü & Sotırofskı, 2006). Studies have shown that knowledge management practices have a positive and significant effect on improving the quality of high schools (Ainissyifa, 2012). Knowledge management can be used as an alternative strategy by schools to help them face the challenges of improving performance in a similar way that it is used in commercial sectors. However, little research has been done on how knowledge management can be applied to the school environment. It is very important to understand the knowledge management perceptions of teachers when it comes to implementing knowledge management (Chu et al., 2011). Knowledge management for schools has the potential to encourage the sharing of innovative practices, avoid duplication, and prevent the loss of valuable knowledge (Thambi & O'Toole, 2012). Knowledge management initiatives in teaching and learning can be used as part of a corporate strategy to create, transform, store, and disseminate knowledge according to students' needs (Ibrahim & Salleh, 2019).

Leadership Roles in Knowledge Management

Leadership plays an important role in value creation, innovation, knowledge management, and implementation strategies (Besen et al., 2017). The way leaders behave and act shows what is expected and how things will be done because members of the organization are attentive to their behaviors and constantly observe the actions of their leaders (Edmondson, 2004; as cited in Carmeli & Sheaffer, 2008). The power of leaders and the influence of their ideas can be seen in their ability to motivate and inspire their followers to accept change, constantly gain knowledge, and share with other organization members (Micić, 2015). Knowledge management leadership covers how leadership practices define the work of the organization, determines how it uses information assets to strengthen its core competencies and implement broad strategy issues. Leaders should encourage the use of knowledge for the benefit of the whole organization rather than for individual advantage. The aim should be to create an environment of information sharing that requires a change in employees' mentality. For this reason, the impact of senior managers' cognitive styles on knowledge management practices is important (Jain & Jeppesen, 2013).

With regard to knowledge management at the organizational level, a knowledge-friendly knowledge management culture within the organization is one of the critical elements of success. Management plays a major role in creating a culture that enables knowledge management. Managers and leaders should actively encourage the creation and use of knowledge. Leaders should maintain and store records, develop a sense of common direction, enthusiasm for learning and mutual trust, and encourage cooperation and healthy competition (Stylianou & Savva, 2016). The organizational culture and leadership behavior of the school affect knowledge management. It is necessary for knowledge management to demonstrate leadership behavior according to the school's organizational culture. The success of a school administrator in terms of information management can be enhanced by a good analysis of the dynamic sociological structure of the school (Özgözgü & Atılgan, 2017). Organizational culture is extremely important for the success of knowledge management. Employees' willingness to learn, being intellectually superior, being encouraged by managers to create and use knowledge, blocking processes that prevent employees from sharing knowledge, and employees' positive orientation towards knowledge, are all determinants concerning the organizational culture being a supportive factor in knowledge management. Knowledge sharing in the organization should be encouraged and rewarded (Aktan & Vural, 2016). Leaders play a vital role in creating and maintaining an organizational learning culture (Stonehouse & Pemberton, 1999; as cited in Crawford, 2005).

As individuals are an integral part of knowledge management practices (such as knowledge creation, sharing, and storage), there are studies examining the role of leadership in influencing and promoting employees' behavior in this direction. For instance, in a study conducted by Johnson (2002), during which four leaders who want to transform their organizations into learning organizations were interviewed, it was concluded that leaders who wanted to be successful in promoting knowledge management practices should include employees at all levels of the organization. However, it is not clear yet which leadership style is the most suitable for conducting knowledge management activities (as cited in Analoui et al., 2013). A smart organization is an organization believed to have significantly different leadership styles

applied to achieving pre-determined goals. The most important task of leaders in such organizations is to encourage knowledge sharing by supporting learning and providing continuous group learning (Macneil 2001; as cited in Singh, 2011). Leadership roles include promoting an organizational learning culture, encouraging information sharing, determining the knowledge management strategy and vision, encouraging employees to share information, supporting knowledge management activities, learning from experiences, and adopting a reward system with regard to the implementation of knowledge management (Doğan & Kılıç, 2009). In addition, leaders must create a special culture for knowledge sharing based on values such as trust, transparency, and honesty. These values will improve the sense of belonging to the institution and increase the ability to learn and internalize new practices (Mas-Machuca, 2014). Research studies reveal that a manager's leadership support is an important factor that contributes to knowledge share among coworkers. Knowledge share among coworkers and managers' leadership support has a positive impact on the organizations' success of knowledge management, which may positively influence organizations' innovation performances (Muhammed & Zaim, 2020).

Knowledge Leadership

Some research studies reveal that leadership is a necessary element in knowledge management processes (Balkar, 2012; Demirel & Seçkin, 2008). The knowledge leader is the person who establishes and supports the systems that ensure the formation of a knowledge sharing culture within the organization, establish the infrastructure that facilitates the transfer and storage of knowledge, and enables mutual learning within the organization (Dfoını & Croteau, 2003; as cited in Doğan & Kılıç, 2009). Knowledge leadership is defined as a process by which the individual supports other group members in the learning processes required to achieve group or organization goals (Stogdill, 1974; as cited in Yang et al., 2014). The role of knowledge leadership is to foster a positive cultural orientation that values continuous learning, experience, and expertise, and innovation that replaces hierarchy, in line with knowledge acquisition and knowledge sharing (Davenport et al., 1998; as cited in Yang et al., 2014). The role of the knowledge leader is to provide strategic vision, motivate others, communicate effectively, act as a change agent, coach others, model good practices, and implement the information agenda (Debowski, 2006; as cited in Singh, 2011). Knowledge leaders are the leaders who plan and direct organizations' performances regarding knowledge management and encourages the attainment of new experiences from the conclusions derived from the systematic analysis of the results. Knowledge leaders should take the support of top-management and continuously motivate their employees about the practices of knowledge management in order to play their expected roles effectively. It is essential for knowledge leaders to provide needed support from the bottom to the top in order to encourage the flexibility and readiness at the organizational level (Yılmaz, 2014). Knowledge leaders need to have various interpersonal and organizational development skills to ensure cultural change, establish relationships and facilitate knowledge transfer (Ali & Yusof, 2006; as cited in Yang et al., 2014). Knowledge leaders are responsible for all the components of the organization, and the areas where organizational knowledge competence needs to be improved, while adhering to the mission and vision of the organization. They have

important responsibilities in terms of realizing difficult processes such as meeting the knowledge sharing needs among units (Doğan & Kılıç, 2009). It is possible to discuss the competencies and roles that the leader should have in carrying out these responsibilities. Viitala (2004) addressed these roles and competencies in four dimensions (Daryono et al., 2015): 1-Learning orientation, that is, leaders to guide learning and help others to understand the purpose of learning 2-Learning climate, that is, encouraging trust, showing a proactive and positive attitude towards mistakes and failures, accepting criticism and trying to develop a favorable social environment in the work unit 3-Learning support, that is, the leaders being available to analyze, plan and create a portfolio of competencies and the learning processes of all employees 4-Role model, that is, leaders act as role models (Figure 1).

Figure 1

Basic Dimensions of Knowledge Leadership

Being a direction determinant in learning

Creating a climate that supports learning

Knowledge Leader

Supporting group or individual learning processes

Being a role model
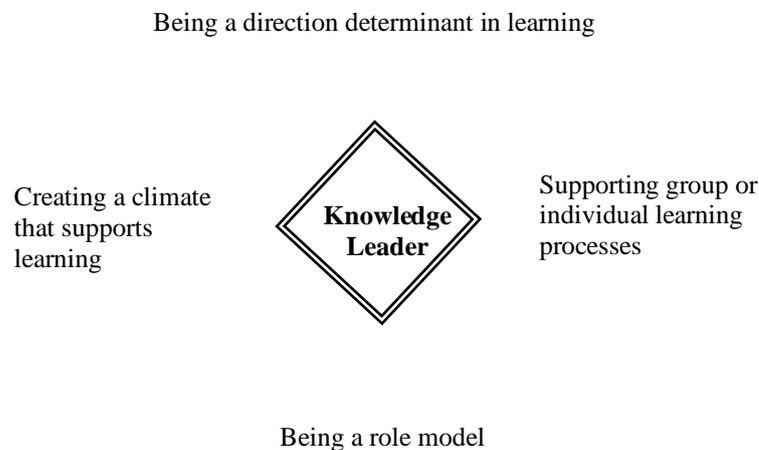
Publication (Viitala, 2004).

As seen in Figure 1, the basic dimensions of knowledge leadership are gathered together in four areas. First, a knowledge leader is primarily a person who should be a role model in the eyes of employees. Determining the direction of the learning process is the second important function of a leader. Third, the leader plays a role in knowledge leadership by creating a supportive learning climate, and supporting group and individual learning processes. Fourth, as a requirement of the knowledge society, managers must possess the qualifications driven from the source of their authority in knowledge (Şahin, 2010).

The Role and Importance of Knowledge Leadership in Knowledge Management

Knowledge management is one of the important needs of organizations to give effective decisions, work effectively, create an innovative environment with highly motivated employees, and ensure continuous development and knowledge sharing in such an environment. Leaders/managers have a great role in fulfilling these needs. Leaders can create a culture that enables knowledge sharing among employees and contributes to the use of knowledge in organizational decision-making processes

(Doğan & Kılıç, 2009). However, since it is difficult to ensure that knowledge management is continuous, it entails an important leadership responsibility (Baker in Myers, 1996; as cited in Lakshman, 2007).

In the knowledge management process, leadership can be accepted as a process in which other group members are supported in the learning processes so that the group will achieve its goals or the organization's goals. In this process, the leader's primary task is to activate the knowledge assets of the organization so that all benefit from this knowledge. Organizations can be successful in knowledge management if leaders/managers adapt to change and have leadership characteristics (Doğan & Kılıç, 2009). Leadership in the knowledge management process can be defined as a process by which members of the group are individually supported in the learning processes required to achieve the goals of the group or the organization (Bozdoğan, 2013). According to Klenke (1994), leaders play a vital role in the construction and maintenance of organizational knowledge. They need to place a high value on knowledge, empower employees, encourage inquiry, build trust, and facilitate the experiential learning of tacit knowledge (Stonehouse & Pemberton, 1999; as cited in Allameh et al., 2012). The incompetencies of leaders cause insufficient knowledge management due to their inability to execute knowledge management (Sandström et al., 2017).

Various factors contribute to the successful execution of knowledge management, and good leadership is a key determinant among these factors. An organizational culture that is key to knowledge management, emphasizing collaboration, sharing, and innovation, can only be built under the strong leadership and commitment of top management, which can positively affect an organization's knowledge-sharing efforts. Since decision-making is knowledge-intensive, knowledge management facilitates information and sustains decision-making (Jain, 2015). Therefore, leadership has a positive relationship with the success of knowledge management. It is possible to observe this relationship in an organization where senior management provides support and some incentives for information sharing, and where the knowledge management project is a part of the corporate strategic plan. In short, the leader plays an important role in the knowledge management process. To be successful, the leader must own the qualities and skills to create, share, and use information within the organization. However, apart from the creation, transfer, and use of knowledge, it is also important for the leader to encourage and create new knowledge to create value for the organization (Micić, 2015). The management of knowledge represents more than the process that begins with the creation of knowledge, continues with the sharing of such knowledge throughout the organization, and ends with using the knowledge. There can be no effective knowledge management without effective leadership. Therefore, the person who needs to create the conditions for creating, sharing, using, and acquiring new knowledge in organizations is the leader (Micić, 2015). In particular, it is thought that leaders should value knowledge, encourage inquiry and experience, build trust, and ensure that tacit knowledge is transferred into practice (Stonehouse & Pemberton, 1999; as cited in Crawford, 2005). Leaders must provide the mission, vision, systems, and structures that will facilitate the transformation of knowledge into competitive advantages at all levels of the organization (Conger & Kanungo, 1998; as cited in Allameh et al., 2012).

Davenport and Prusak (1998) suggest some specific advice to future leaders regarding their role in knowledge management. Their suggestions can be listed as (cited in Crawford, 2005):

Maintain the importance of knowledge and learning in the organization,

Design, implement and supervise the learning infrastructure of the organization,

Manage relationships with external information providers,

Produce ideas that will improve the knowledge creation process in the organization,

Design and implement a knowledge coding approach,

Measure and manage the value of knowledge,

Lead the development of learning and knowledge strategies by focusing on organizational resources.

Figure 2 summarizes the role of leaders in terms of knowledge management. First, the leader should realize the importance of knowledge management. Second, the leader both implements and directs knowledge management and participates in this process personally. This affects organizational performance and leadership perceptions. If the leader uses customer-oriented knowledge management (with the help of socio-cognitive networks and technological networks) in parallel with realizing the importance of knowledge management, it will ultimately have an impact on organizational performance and leader perceptions.

Figure 2

The Role of Executive Leadership in Knowledge Management
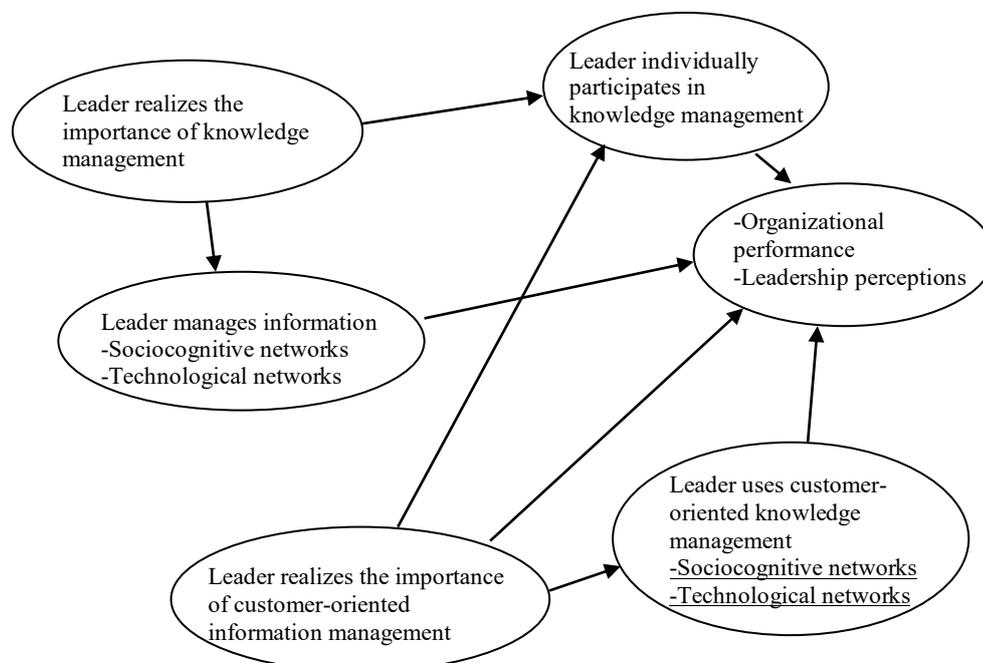
Publication (Lakshman, 2007).

Leadership support strongly influences the users' knowledge-seeking behavior through knowledge management systems. Consequently, knowledge sharing increases

within the organization. Studies show that leaders play an important role in the success of knowledge management systems and that leader's support and behavior motivate employees to share information (as cited in Humayun & Gang, 2013). In summary, many knowledge management researchers have identified leadership as an important variable in the relationship between knowledge management and organizational effectiveness (Bell De Tienne, 2004; as cited in Lakshman, 2007). The learning process has the potential to become crucial in the implementation of knowledge management.

For this reason, school administrators should encourage and facilitate the learning process on the part of educators to enable individuals to collaborate and perform by sharing the most appropriate knowledge. School administrators should complement the school environment and the characters involved in the formation of a learning school, and at the same time, provide solutions to overcoming the learning barriers faced by the organization (Ainissyifa, 2012). In his study on leadership and knowledge management skills, Balkar (2012) found a moderate, positive, and significant relationship between the knowledge management process competencies of secondary school principals and their leadership skills. The study revealed that the leadership skills of school principals were a significant predictor of knowledge management process competencies. Karakoç (2010), on the other hand, stated that the transformational leadership characteristics of school principals reflected positively on knowledge management processes. It was found out that the relationship between transformational leadership traits and knowledge management processes was significantly higher than interactional leadership traits. According to the opinions of teachers and school principals who took part in his study, Şahin (2010) stated that there was a highly significant relationship between principals' knowledge management skills and schools being learning organizations. It was concluded that principals' knowledge management skills were a significant predictor of the learning organization level of schools.

The relationship between leadership and knowledge management has been discussed in this section. Studies on explaining the importance of leadership roles in knowledge management with knowledge leadership, which is a more specific type of leadership, indicate the relationship between the processes of transferring, storing, and applying knowledge in terms of knowledge management and knowledge-oriented leadership (Donate & Pablo, 2015; Lakshman, 2007). The knowledge leader should be an advocate of knowledge and learning. The knowledge leader is the designer, implementer, and supervisor of knowledge infrastructure, including libraries, knowledge bases, human resources, computer information networks, research centers, and the academic relations of an institution (Davenport 1994; as cited in Kok, 2003). Obtaining the desired benefit from knowledge management can be achieved by creating a structure for knowledge leadership in the organization (Bozdoğan, 2013). Interpersonal communication skills, emotional maturity, enthusiasm, and the ability to build both internal and external networks, are important knowledge management skills needed by knowledge leaders (Kok, 2003). Knowledge leaders need to explain the goals of knowledge management to determine their roles in achieving these goals. In other words, knowledge leaders need to guide the processes necessary to achieve the desired goals (Debowski, 2006; as cited in Singh, 2011). Knowledge leadership, knowledge-sharing culture, and knowledge management system support are the elements of success

in schools' knowledge management practices (Cheng et al., 2017). The knowledge leader has a great responsibility to educate his/her employees in knowledge management and highlighting its benefits. These responsibilities include defining employees' roles, skill sets, and career opportunities, developing a strategy that will facilitate education and training, and developing learning centers (Kok, 2003). Knowledge leadership promotes organizational learning (Chou & Ramser, 2019). Knowledge leaders must possess the characteristics of contemporary knowledge leadership (Bozdoğan, 2013).

A knowledge leader should strategically integrate information into the organization by following the stages presented below (López, 2013):

a) Defining Identity: The knowledge leader should define the identity of the organization in order to understand the principles of the organization's activities and products.

b) Finding the Knowledge Needs: The next step in organizational identity is to identify the knowledge needs of the institution and the key actors that will allow the organization to meet these needs.

c) Designing the Knowledge Strategy: The knowledge leader produces the strategy to be followed by the organization with the knowledge previously gathered. The knowledge strategy must be in line with the organizational strategy. Therefore, elements such as identity and knowledge needs should be considered for its design.

d) Motivating the Transfer of Knowledge: Knowledge leaders should use tools to encourage motivation among organization members so that they can agree to transfer the knowledge they have. This is useful for organizational processes.

e) Constructing the Knowledge System: After the staff has become motivated to follow the knowledge strategy, the knowledge system will be built. This will include the technological aspects and the administrative and normative processes that make up the knowledge system.

In summary, it is possible to state that knowledge leaders are one of the main actors for organizations in terms of knowledge management processes. Determining the existing organizational knowledge level, fulfilling the organizational responsibilities in the process of creating and obtaining knowledge, creating an environment and culture that will facilitate the knowledge sharing of the employees, and ensuring the storage of the knowledge used, will only be possible with the existence of knowledge leaders (Doğan & Kılıç, 2009). The purpose of information management is to inform the organization on time about the scientific and technological developments occurring in the environment of the organization, and to reflect this to the organization. It is of great importance that schools, which are organizations that produce and distribute information, be aware of these developments (Sakarya, 2006). This is because knowledge management supports the aims of education and increases the effectiveness of learning. School administrators' being active in the processes of obtaining, sharing, using, and storing information contributes significantly to the achievement of the goals of schools (Özsarıkamış, 2009). School leaders and employees need to come up with effective strategies to achieve the desired level in knowledge management (Muratoğlu, 2005).

Discussion and Conclusion

Technological developments in the last century have significantly affected the management of organizations. In particular, the subject of knowledge management has started to play an important role in providing competitive advantages for organizations. Therefore, schools, which are knowledge-based organizations, should develop knowledge management strategies to provide an effective education that meets the needs of the age. In this context, the school principal is of great importance as this individual is considered the leading authority for achieving educational goals (Özmen & Muratoglu, 2010). Due to the multitude of internal and external stakeholders associated with schools, school principals should ensure social participation in knowledge management practices. They may face difficulties in gaining support and voluntary participation in the operation of the process. This situation requires school principals to be competent in terms of both knowledge management and leadership skills (Balkar & Şahin, 2012). Knowledge leaders are needed at all levels of the organization. To achieve the organization's goals, knowledge leaders must balance the creation and use of knowledge to increase both their professional effectiveness and the organization's effectiveness. Even if such a leader is not necessarily a manager of the organization, a knowledge leader needs to be functional, adaptable, sustainable, and offer timely intervention. It is important to emphasize that leaders have to focus on tasks or relationships. Since these traits are frequently difficult to find in one person, ideally, leadership in an organization should involve a team. In other words, there should be more than a single knowledge leader (López, 2013). This means that everyone should have the appropriate competencies and be active in the knowledge leadership role. Such a situation will both alleviate the burden on school principals and have consequences that can be attributed to the whole organization through shared knowledge leadership. Thus, the advantages of knowledge for the school will become more evident through effective knowledge leadership. School principals can be determinant in ensuring this, because teachers and other staff members often expect leaders to have an expected behavioral pattern and ability to encourage the achievement of the desired goals. If this leadership ability is used for the benefit of the development of knowledge management systems, they encourage the search for knowledge through such systems (Al-Ani & David, 2009; Wei & Kwok-Kee, 2009; as cited in Humayun & Gang, 2013).

Consequently, every employee becomes motivated to be a knowledge leader by demonstrating the expected behavior patterns. Educational research shows that it is considered separately. Most school variables have only a small effect on learning. The real effect occurs when these individual variables combine to achieve critical mass. It is up to the principal to create the conditions under which this can happen (The Wallace Foundation, 2013). In other words, the synergy arising from a combination of the power of each part of the system can enable the effectiveness of all the variables relating to the school. This makes it easier for the school to achieve its goals. One of these sub-systems within a school is a school principal who has taken on the role of knowledge leadership, and another is teachers who share this role.

The ultimate goal of the organizational learning process is to form a learning organization. For this reason, knowledge management is extremely important in providing information that will constitute a basis for learning. Learning organizations create unique knowledge by internalizing the information they obtain, and use it in their

organizational behavior. The change and development in organizational behavior is an indicator of organizational learning. Therefore, knowledge management processes come into play in the realization of organizational learning (Üzüm, 2009). In learning organizations, all employees constantly pursue knowledge and learn to learn. The aim of learning is to encourage change and ensure development and innovation (Şahin, 2010). In the light of all these explanations, it can be inferred that the concepts of organizational learning and knowledge management are closely related. Knowledge management is the pioneer of organizational learning, the engine of organizational affairs, and a powerful and indispensable learning organization tool (Dahou et al., 2019). The person who can manage all these processes in an organization is a knowledge leader, or a shared knowledge leadership culture in the organization can do it. It can be seen that these concepts are based on the concepts of learning and knowledge. Therefore, the importance given to knowledge and learning, and the severity of the need for these concepts are the basic conditions that will ensure that these concepts are on the agenda of organizations. As previously stated in this study that knowledge leadership is necessary, in contrast to those approaches (López, 2013) which state that a very consolidated form of knowledge leadership is required despite the need for cooperation to create and transfer information within organizations. In addition, researchers have tried to emphasize that there is a responsibility that all employees should undertake with a shared leadership understanding.

The centralistic structure of the Turkish Education System and the nature of leadership can be seen as obstacles for school principals to play different leadership roles (Bursalıoğlu, 1999; Gümüşeli, 1996). However, there should be no obstacle to being a knowledge leader. Being a knowledge leader is only possible by feeling the need for knowledge and establishing processes and structures that will transfer this feeling to school staff. Knowledge leaders first access and use knowledge themselves, and both demonstrate and spread the power of such knowledge. Thus, they can be more effective among employees. Knowledge leaders must have the power of knowledge and the capacity to use that knowledge so that this will fascinate employees. Knowledge leaders are indispensable actors in the knowledge management process. In addition to the knowledge management process, knowledge leaders play a great role in making learning an indispensable habit on the part of the organization. The most important task of knowledge leaders is to be able to benefit from knowledge by activating the knowledge assets of the organization. The knowledge leader has important effects on the creation, processing, sharing and storage of knowledge, and making learning part of an organizational culture. This is necessary because knowledge management will not occur spontaneously and will not develop without constant human intervention. The appointment of a knowledge leader is an acknowledgment of the importance of knowledge in the future well-being of an organization (Kok, 2003). Schools are knowledge-intensive organizations, and there are many areas of knowledge that need to be managed. The main actors in managing this knowledge are school principals. Therefore, knowledge management and leadership skills can be considered important qualities that school principals should have.

Implications

This study offers a discussion at the conceptual level. Applied research on the relationship between knowledge leadership and knowledge management can be done. In addition, the opinions available in the literature show that the stages in knowledge management processes require different leadership styles. Knowledge leadership roles are a responsibility that should be taken into account by all employees within an organization and can be examined through research using different research designs and approaches.

Conflicts of Interest

There are no conflicts of interest in this study.

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Empathy Levels and Personal Meaning Profiles of Psychological Counselor Candidates: A Longitudinal Study

Psikolojik Danışman Adaylarının Empati Düzeyleri ve Kişisel Anlam Profilleri: Boylamsal Bir Çalışma

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ABSTRACT: The aim of this longitudinal study was to examine the empathy levels and personal meaning profiles of the psychological counseling candidates studying at university. The research was based on descriptive method. The main purpose was to comparatively examine the changes in the empathy levels and personal meaning profiles of the participants with respect to years. The study group consisted of 36 participants (30.6% of whom were boys, and 69.4% of whom were girls) who were studying at university between the academic years of 2015 and 2019. The data were collected once each year (first, second, third, and fourth grades) from the participants involved in the study group. In order to collect data, which were then analyzed using Statistical Package (SPSS), One Way Anova with repeated measures and the Friedman Test were used. The findings revealed that the basic empathy levels of the prospective psychological counselors did not change during their undergraduate studies, whereas the level of their pursuit of personal meaning in religion and intimacy did change. Counselor Candidates received the highest score in the first year and the lowest score in the fourth year on the dimensions of religion and intimacy of the Personal Meaning Profile scale.

Keywords: Empathy, meaning, longitudinal screening, psychological counseling.

ÖZ: Bu araştırmanın amacı, üniversitede öğrenim görmekte olan psikolojik danışman adaylarının empati düzeyleri ve kişisel anlam profillerinin boylamsal olarak incelenmesidir. Araştırma betimsel yöntemle gerçekleştirilmiştir. Temel amaç psikolojik danışman adaylarının empati düzeyleri ve kişisel anlam profillerinin yıllara göre değişimini karşılaştırmalı olarak incelemektir. Araştırmanın çalışma grubunu 2015-2019 eğitim öğretim yılları arasında dört yıl boyunca öğrenim gören, çalışmaya gönüllü olarak katılım sağlayan 36 psikolojik danışman adayı (%30.6'sı erkek, 69.4'ü kız) oluşturmaktadır. Araştırmanın verileri çalışma grubunda yer alan katılımcılardan öğrenim gördükleri her eğitim yılında (birinci, ikinci, üçüncü ve dördüncü sınıf) toplamda dört kez toplanmıştır. Araştırmanın verileri Temel Empati Ölçeği ve Kişisel Anlam Profili ile toplanmıştır. Veriler SPSS paket programı ile analiz edilmiştir. Verilerin çözümlenmesinde tekrarlı ölçümler için Tek Yönlü Varyans Analizi ve Friedman testi uygulanmıştır. Araştırma sonucunda, psikolojik danışman adaylarının temel empati düzeylerinin lisans eğitimleri süresince değişim göstermediği, kişisel anlamı dinde arama ve yakınlıkta arama düzeylerinin ise lisans eğitimleri süresince değişim gösterdiği bulunmuştur. Psikolojik danışman adayları, Kişisel Anlam Profili ölçeğinin din ve yakınlık boyutlarına ait en yüksek puanı birinci sınıfta, en düşük puanı dördüncü sınıfta almışlardır.

Anahtar kelimeler: Empati, anlam, boylamsal tarama, psikolojik danışmanlık.

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Psychological counseling and guidance is a profession that aims to offer help to people (Eryılmaz & Mutlu Süral, 2014). The qualifications of the individuals who will perform this profession, which serves a universal purpose, and the adequacy of their education are important in terms of the quality of the service to be provided in mental health. Rogers (1957) states that the counseling relationship established between the client and the counselor is both necessary and sufficient for constructive changes in the client and attributes a great deal of value to this relationship. In the counseling process, the most meaningful theme for both clients and counselors is the counseling relationship (Sackett et al., 2012). The desire to be understood in therapy interviews is at the top of the list for clients (Egan, 2011). Accordingly, it is possible to say that the relationship between the client and the counselor has therapeutic power. The effective use and development of this power are among the issues that researchers examine.

In the counseling process, counselors use various therapeutic skills such as active listening, reflection, and empathy. These therapeutic skills strengthen the relationship between the client and the counselor (Nelson-Jones, 2015). Counselors listen to their clients to understand them and their problems and respond to them in constructive ways (Egan, 2011). Ensuring the necessary conditions in the process will encourage the client to participate in the process and increase the counselor's self-esteem (Hackney & Cormier, 2008). To provide these conditions, psychological counselor training is important.

Psychological counseling is a field that requires theoretical knowledge as well as field-specific skills (Kurtyılmaz, 2015). Many researchers emphasize empathy when responding to the question "What are the characteristics of an effective psychological counselor?" (Combs, 1986; Egan, 2011; Rogers, 1957). Empathy is generally defined as a person's correct understanding of their feelings, needs, and thoughts by putting themselves in place of the other people (Dökmen, 2006; Egan, 2011). In terms of psychological counseling process, it can be defined as the capacity of a counselor to mentally identify themselves with the client to understand the client's inner world (Nelson-Jones, 2015). Empathy is regarded as a skill that can be developed through training (Karaca et al., 2013; Sargın, 1993; Yüksel, 2004). To feel empathy for a person does not mean to have the same feelings and thoughts that the other person has (Dökmen, 2006). Sayar (2011) refers to empathy as "the other within oneself" with a more metaphorical description and describes it as the great meeting where the beings flow into each other, but still, each entity remains separately.

The courses offered to psychological counselor candidates in Turkey within the scope of counselor training such as 'principles and techniques of counseling' and 'individual counseling skills' include theories and practices which aim at developing empathy skills. The psychological counselor's ability to give an advanced level of empathic response is possible with effective use of content and emotion reflection skills. Understanding what the client is saying and communicating with them are the main features expected from psychological counselors (Gladstein, 1983; Voltan-Acar, 2015). Empathic understanding plays a crucial role in establishing a therapeutic relationship (Erdur-Baker, 2016). The level of demonstrating or developing this skill in psychological counseling and guidance has been the subject of many studies (Alver, 2005; Combs, 1986; Egan, 2011; Sargın, 1993; Uslu, 2005). However, no longitudinal study that examined whether the empathy levels of psychological counselor candidates

changed during their undergraduate studies was found. It is believed that this study will help fill this gap in the literature. In this context, this study aims to examine the current educational status of psychological counselor candidates developmentally and contribute to the process of structuring psychological counseling education.

Another aspect of the study is the personal meanings of the psychological counselor candidates. People keep looking for answers to many existential questions like "What is the meaning of life?", "What is my purpose in this life?", "Why are we here?" or "What am I struggling for?" throughout their lives (Batthyany & Russo-Netzer, 2014). According to Frankl, one can find meaning in life in three different ways, which he lists as:

1. Creating a work or doing a work (creative values),

2. Experiencing something or interacting with a person (experiential values),

3. Developing an attitude towards unavoidable suffering (attitudinal values) (Frankl, 2007).

Wong (1998) further expanded these three ways suggested by Frankl in his scale of Personal Meaning Profile and examined the meaning experienced by the individual with seven factors: intimacy, achievement, relationship, religion, self-transcendence, self-acceptance, and perceived justice. The sources of meaning cover many different levels of needs, from physiological needs to transcendental and spiritual needs (Mcdonald et al., 2012). As social creatures, human beings can get help from someone else while meeting these needs. In this direction, Logotherapy, known for its existentialist origin, puts forward the "*therapy through meaning*" argument (Frankl, 1999). This indicates that individuals can find meaning in their lives and recover.

Although counselors have a role in leading others (clients) to find meaning in their lives, it can be said that it is important for them to find meaning in their own lives. Being able to stay fit and stay away from burnout is an important point in occupations with a high level of interaction with the group s/he works as counselor and therapist (Skovholt & Trotter-Mathison, 2011). This makes the psychological counselor's personal life related to their counseling skills. Life satisfaction of psychological counselors who find meaning in their lives increases (Degges-White & Stoltz, 2015). Consequently, the well-being of the counselors also affects the level of meeting the needs of their clients. (Lawson, 2007). It is thought that psychological counselors who take healthy steps in their pursuit of personal meaning will contribute to the meaning worlds of their clients.

Considering a positive relationship between empathy and the meaning of life (Damiano et al., 2017), both variables were considered together in this study. Wong (2012), who has many works on the meaning of life, states that "empathy can also be developed by recognizing the universality of existential concerns and human problems." In this context, depending on whether the psychological counselors' search for the meaning of life in a personal sense changed with the empathy skills, they will demonstrate in the professional sense formed a basis for this study.

It can be said that if psychological counselor candidates' can realize the meaning of their own lives, this will contribute to their psychological counseling skills. The undergraduate education that psychological counselors receive to develop these skills also corresponds to a period representing the transition from adolescence to adulthood.

In other words, it is possible to say that in this period, counselor candidates' inquiries about the meaning in their lives were intense. Starting from this point, this study aims to examine and compare the changes in the empathy levels and personal meaning profiles of psychological counselor candidates during their undergraduate studies year by year.

In line with the purpose, answers to the following questions have been sought in this study:

1. Do the empathy levels of psychological counselor candidates change during their undergraduate studies?

2. Do the personal meaning profiles of psychological counselor candidates change during their undergraduate studies?

Method

Research Design

The research was conducted using the longitudinal screening model. Longitudinal screening studies involve repeated measurements of a variable at different times, and it is done to examine time-dependent changes in individuals (Fraenkel & Wallen, 2006). The data were collected from the psychological counselor candidates periodically in the first, second, third, and fourth grades (four times in total).

Study Group

This study was initiated in the spring semester of the 2015-2016 academic year by performing the first application to 70 students enrolled in the first grade of the Faculty of Education guidance and psychological counseling program at a public university in Turkey. The students were informed that their names and surnames would be recorded to keep track of their development throughout four years, and those who volunteered to participate were involved in the study. The data were obtained from the same participants in every spring semester during 2015-2019 academic years. In the spring semester of 2018-2019 academic year, it was found out that 11 of these students had graduated, two had ended their studies at their request, and two had been transferred to other universities. In addition, 19 students could not be reached when the data for repeated measures were collected. Therefore, the study was completed with 36 psychological counseling candidates, 11 of whom were boys (30.6%) and 25 of whom were girls (69.4%), who took part in the study throughout four years. The ages of the participants ranged from 23 to 31 by the spring semester of 2018-2019 academic year.

Data Collection Tools

Two different data collection tools were used in the study. These were the Basic Empathy Scale and the Personal Meaning Profile Scale. Detailed information about each is given below.

The Basic Empathy Scale

Jolliffe and Farrington originally developed the scale in 2006, and it was adapted to Turkish by Topcu et al. in 2010. The Basic Empathy Scale is a five-point Likert-type (1=Strongly Disagree, 2=Disagree, 3=Neither Agree, nor Disagree, 4=Agree, 5=Strongly Agree) scale consisting of 20 items in total. Eight negatively worded items

(reversed items) are reverse-scored. To obtain a total score, all items were collected. It was observed that the fit indices (GFI=.90, AGFI=.87, RMSEA=.06) obtained as a result of the scale were adequate. The Cronbach Alpha coefficient of the scale, whose psychometric properties were found sufficient in the Turkish adaptation study, was measured between the range of .76 -.80 (Topcu et al., 2010). Some sample items related to the scale are as follows: "My friend's emotions don't affect me much," "I don't feel sorry when I see other people crying."

Personal Meaning Profile

The original scale, which was a seven-point Likert-type scale ("1" Not at all; "7" quite a lot) which included 57 items, was developed by Wong (1998). There are no reverse-scored items on the scale. According to this scale, the more the number of sub-scales with a high score is, the greater gives information about the widening of personal meaning in life. The scale provides information on how close an individual is to ideal perception of personal meaning by showing the specific areas in which s/he is seeking for and experiencing meaning (Wong, 1998).

Akın et al. carried out the adaptation of the scale into Turkish in 2016. In a study conducted with 304 university students, as a result of confirmatory factor analysis, it was found that the fit indexes obtained from the scale consisting of 57 items and seven factors (achievement, relationship, religion, intimacy, self-transcendence, self-acceptance, and perceived justice) were acceptable (x^2=3170.41, sd=1518, p=.00, x^2/sd=2.08, RMSEA=.060, NFI=.87, NNFI=.92, CFI=.93, IFI=.93, SRMR=.07). Personal Meaning Profile, the factor loads of the Turkish form, are between .30 and .69. The Cronbach Alpha coefficient of the scale was measured as .93. Therefore, the Turkish version of the scale can be said to be a reliable and valid measurement tool (Akın et al., 2016).

Data Analysis

While analyzing the data collected to determine whether psychological counselor candidates' empathy levels changed during their four-year undergraduate studies, One Way Anova for repeated measures was utilized. To perform One Way Anova for repeated measurements, it is necessary to examine the assumptions of normality and sphericity (Can, 2013). For the assumption of normality, the Shapiro-Wilk test was used because the number of participants was fewer than 50. It was observed that the psychological counselor candidates' first-year, third-year, and fourth-year empathy scores showed a normal distribution according to the Shapiro-Wilk Test (p>.05). In contrast, their empathy scores in the second year did not show a normal distribution. However, it was accepted to have a normal distribution since the kurtosis and skewness coefficients of their empathy scores in the second year were within the range of -1 to +1 (kurtosis=.299; skewness=-.885) (Can, 2013). According to the Mauchly Sphericity test, which was conducted to determine whether the homogeneity assumption was achieved or not, it was seen that the empathy scores of the participants did not meet the sphericity assumption (p<.05). When the sphericity assumption is not provided, it is necessary to decide whether the difference is significant with the corrections to be made in F statistics according to the epsilon value. In general, it is suggested that Huynh-Feldt epsilon value be used when epsilon values are more significant than .75 (Can, 2013; Leech et al., 2005; Şencan, 2005).

While analyzing the data collected to determine whether psychological counselor candidates' personal meaning profiles changed during their four-year undergraduate studies, One Way Anova for repeated measures was utilized. To perform One Way Anova for repeated measurements, it is necessary to examine the assumptions of normality and sphericity (Can, 2013). For the assumption of normality, the Shapiro-Wilk test was used because the number of participants was fewer than 50. The results of the Shapiro-Wilk test revealed that the achievement, relationship, religion, and intimacy dimensions of the personal meaning profiles of the candidates did not have a normal distribution ($p<.05$) in their first, second, third, and fourth years, whereas a normal distribution was observed in terms of self-acceptance dimension ($p>.05$). According to the Mauchly Sphericity Test, which was used to determine whether the sphericity assumption was achieved or not, the self-acceptance scores of the participants met the assumption of sphericity, too ($p>.05$).

The first, second, and fourth-grade self-transcendence scores of the psychological counselor candidates showed normal distribution according to the Shapiro Wilk test ($p>.05$). In contrast, the third-grade self-transcendence scores did not show normal distribution. However, the third-year self-transcendence scores were accepted to have a normal distribution since their kurtosis and skewness coefficients were within the range of -1 to +1 (kurtosis= .888; skewness=-.084) (Can, 2013). Considering the results of the Mauchly Sphericity Test, which was done to determine whether the homogeneity assumption was met or not, it can be said that the self-transcendence scores of psychological counselor candidates met the assumption of sphericity ($p>.05$).

Psychological counselor candidates' first-year, second-year, and third-year perceived-justice scores were observed to have a normal distribution according to the Shapiro-Wilk Test ($p>.05$); however, those scores did not show a normal distribution in the fourth year. However, the fourth-year perceived justice scores were accepted to have a normal distribution since their kurtosis and skewness coefficients were within the range of -1 to +1 (kurtosis= .043; skewness=-.812) (Can, 2013). Based on the results of the Mauchly Sphericity Test, which was conducted to determine whether the sphericity assumption was met or not, it can be said that the perceived justice scores of psychological counselor candidates met the assumption of sphericity ($p>.05$).

The Friedman Test, one of the non-parametric tests, was applied in this study because the normality assumptions of the achievement, relationship, religion, and intimacy dimensions of the personal meaning profile scale were not met. On the other hand, One Way Anova for repeated measures, which is among parametric tests, was also applied since normality assumptions of the self-transcendence, self-acceptance, and perceived justice dimensions were met. The data were analyzed with SPSS 22 package program.

Ethical Procedures

The study was designed in accordance with ethical principles and rules. Ethics committee document numbered 61923333/050.99 of the study was given by Sakarya University Social and Human Sciences Ethics Committee.

Results

The results of the One Way Anova for repeated measures aiming at revealing whether psychological counselor candidates' empathy-related scores show a significant difference according to their grade level (year-by-year) are given in Table 1.

Table 1

The Results of One Way Anova with Repeated Measures Aiming at Revealing Whether Psychological Counselor Candidates' Empathy-Related Scores Show A Significant Difference according to Their Grade Level (year-by-year)

Grades	*n*	$\bar{X}$	*sd*		Sum-of-Squares	df	Mean of Squares	*F*	*p*
1	36	76.69	7.76	Between Groups	5646.58	35	161.33		
2	36	75.50	8.70	Factor	74.91	2.53	29.55		
3	36	77.53	7.45	Error	3091.34	88.72	34.84	.85	.45
4	36	76.64	7.63	Total	8812.83				

According to Table 1, the empathy levels of psychological counselor candidates do not differ significantly based on their grade level (*p*>.05). This finding shows that the empathy levels of psychological counselor candidates did not change throughout their undergraduate studies.

The results of the Friedman analysis, which was conducted to reveal whether the participants' scores related to the religion dimension of the personal meaning scale changed throughout their undergraduate studies, are given in Table 2.

Table 2

The Results of the Friedman Analysis Aiming at Revealing Whether Psychological Counselor Candidates' Religion-Related Scores Changed throughout Their Undergraduate Studies

Grade	*n*	Mean Rank	*df*	Chi-Square	*p*
1	36	3.25			
2	36	2.54	3	22.741	.000
3	36	2.33			
4	36	1.88			

According to Table 2, it can be said that psychological counselor candidates' scores related to the religion dimension of the personal meaning scale showed a significant difference during their undergraduate studies (*p*<.05). To understand between which grade levels this difference happened, Bonferonni correction was made and interpreted. Their first-year scores of the religion sub-dimension of the personal meaning profile scale are statistically higher than their third and fourth-grade scores. The analysis also showed that psychological counselor candidates had the highest score for the religion dimension of the personal meaning profile scale in the first year while

they had the lowest score for the same dimension in the fourth year. In addition, the effect size calculation was made to reveal the effect of the change. As the effect size statistics of the Friedman test, Kendall's W value can be used (Green & Salkind, 2014). The Kendall W value, related to the change in the scores of the religion dimension of the personal meaning profile scale of the psychological counselor candidates during their undergraduate education, was calculated as .211. This value shows that the change that occurs during education is very low.

The results of the Friedman analysis, which was conducted to examine whether the participants' scores related to the intimacy dimension of the personal meaning scale changed throughout their undergraduate studies, are given in Table 3.

Table 3

The Results of the Friedman Analysis Aiming to Reveal Whether Psychological Counselor Candidates' İntimacy-Related Scores Changed throughout Their Undergraduate Studies

Grade	*n*	Mean Rank	*df*	Chi-Square	*p*
1	36	2.52			
2	36	2.63			
3	36	2.63	3	10.653	.014
4	36	1.93			

Considering the findings given in Table 3, it can be concluded that the participants' scores related to the intimacy dimension of the personal meaning profile scale showed a significant difference during their undergraduate studies ($p<.05$). To understand between which grade levels this difference happened, Bonferonni correction was made and interpreted. The scores for the intimacy dimension of the personal meaning profile scale of the participants in their first year were statistically higher than their scores in the fourth grade. The analysis also demonstrated that the participants had the highest score for the intimacy dimension of the personal meaning profile scale in their first year, while they got the lowest score in the fourth year. In addition, the effect size calculation was made to reveal the effect of the change. As the effect size statistics of the Friedman test, Kendall's W value can be used (Green & Salkind, 2014). The Kendall W value, related to the change in the scores of the intimacy dimension of the personal meaning profile scale of the psychological counselor candidates during their undergraduate education, was calculated as .099. This value shows that the change that occurs during education is very low.

Furthermore, Friedman's analysis indicated that the participants' scores related to the achievement and relationship dimensions of the personal meaning profile scale did not change significantly during their undergraduate studies ($p>.05$). Finally, the One Way Anova for repeated measures suggested that there was no significant difference in their scores regarding the self-acceptance, self-transcendence, and perceived justice dimensions of the personal meaning profile scale of the participants during their academic studies at university ($p>.05$).

Discussion and Conclusion

The main subject of this research is whether empathy as a concept identified with the field of guidance and psychological counseling is a feature acquired by students in their undergraduate studies. The study results indicated that the empathy levels of psychological counselor candidates did not change during their four-year undergraduate studies. Karataş (2012), in his research involving university students, has found that the highest level of empathy skill was among fourth graders. It is possible to come across studies indicating that empathic tendency and empathic skill scores of guidance and psychological counseling program students are higher than the scores of students in different programs (Ekinci, 2009; Karataş, 2012; Yavuz-Güler & İşmen-Gazioğlu, 2008). However, there is no evidence proving that their empathy levels change over the years depending on their education.

In the literature, it is possible to find studies which indicate that training to develop empathy skills can help psychological counselors (İkiz & Karaca, 2011; Sargın, 1993) and nursing students (Karaca et al., 2013) to develop their empathy skills. Furthermore, the studies conducted by Karaca et al. (2013) and Sargın (1993) examined the empathic tendencies of the participants, and it was seen that the training provided to the participants did not change their empathic tendencies (Karaca et al., 2013; Sargın, 1993). In these studies, empathic tendencies and empathic skills were treated as two different concepts (Karaca et al., 2013; Sargın, 1993). While the tendency is mostly used to express an internal situation, skill indicates the unleashing of a potential through practice and learning (Budak, 2003). Since the basic empathy scale used in the current research (Topcu et al., 2010) is mainly intended to measure the empathy tendencies of individuals, it can be considered that there is no change in the empathy levels of the candidates during the undergraduate education.

In a cross-sectional study conducted with 171 college students studying in psychological counseling and guidance, Alver (2005) used the Empathic Skills Scale developed by Dökmen (1988). In Alver's study (2005), the second, third, and fourth-graders' empathy skill levels were found to be significantly higher than those of first graders. Another cross-sectional study carried out by Ünal in 1997 also showed that students studying psychological counseling and guidance program students' empathic tendency levels are low in the first year of their education. Taking both studies (Alver, 2005; Ünal, 1997) into consideration, the distinctive features of this current study were that it was a longitudinal study in which measurements were made with the same participants at intervals of one year, that psychological counselor candidates' empathy levels were not observed to develop during their undergraduate studies, that a different tool was used for empathy level measurements, and that personal meaning profiles of the participants were also examined besides their empathy levels.

Some inexperienced psychological counselors fail to empathize with a client properly because they feel too intertwined due to their willingness to help (Hackney & Cormier, 2015). Uslu (2005) stated in his study that it is found that some psychological counselors see themselves as inadequate in terms of their psychological listening skills, including empathy. Uslu's (2005) study supports the finding that researchers did not change their empathy scores during their undergraduate education. This conclusion raises whether there are sufficient educational and experiential opportunities provided to psychological counseling and guidance students and the counselors to improve their

empathy levels. In an experimental study, Schomaker (2013) found that mindfulness training resulted in an increase in mindfulness, empathy, and therapeutic alliance scores of counselor trainees doing clinical practice. Similarly, Leppma (2011) found that mindfulness-based loving-kindness meditation improved the cognitive empathy levels of psychological counselors. These studies done by Schomaker (2013) and Leppma (2011) suggest that experiential training based on different approaches can contribute to the psychological counselors' training. It can be said that integrating the advancements in the field of mental health into the programs in institutions providing education in the field of psychological counseling and guidance constitutes a critical point.

Another result of the research: The psychological counselor candidates' the religion dimension of the personal meaning profile scale had the highest score in the first grade and the lowest score in the fourth grade. King et al. (2012) have conducted supportive studies that empathy connects spiritual and emotional intelligence to each other. Therefore, empathy can be said to interact with spiritual life. Uysal (2016) examined the relationship between religiosity variables and empathic tendencies among young people with an age range of 14-26, found that the higher the level of religiosity got, the better empathic skills became. In the present study, the fact that the fourth-grade psychological counselor candidates were lower than the first-grade religion scores and that their empathy levels did not develop throughout their undergraduate education included the points that overlap with the findings of Uysal. It can be thought that in the first years of university, students are trying to find meaning in the values they have brought from their families. One of these values includes the religious dimension. However, in a sense, the young person trying to discover himself/herself may have developed the ability to find meaning in different ways at the end of his university years. This may have led to a decrease in the level of finding meaning in religion in the fourth year.

Morrison and Borgen (2010) presented a study on the impact of psychological counselors' Christian spiritual and religious beliefs on the counseling process. In this study, it was observed that for some counselors, the idea that God brought the client and the counselor together strengthened their relationship, that the counselor formed a way to connect to God, and that some tried to integrate Jesus' empathetic approach into counseling processes. The current research was conducted in Turkish society. Karaırmak (2008) defines Turkey as a country that consists of sub-groups and sub-cultures emerging from social class differences, religious beliefs, traditions, geographic location, and family structure. These rich diversity sources in Turkish society may be considered an obstacle to benefiting from the sources of religion during the counseling process. The place of religion in psychological counseling processes will be a topic of discussion (Abanoz, 2020; Dilmaç et al., 2016). However, considering the human characteristics of the psychological counselors, it can be suggested that how religion affects counseling process in the Turkish community be studied, as well.

According to the study, the psychological counselors had the highest score for the intimacy dimension of the personal meaning profile scale in their first year, while they got the lowest score for the same in their fourth year. Having a shared, pre-existing hermeneutical structure, intimate relationships differ from non-intimate relationships (Kirk, 2007). For intimacy to develop, people need to introduce something. When people choose intimacy with others, they can reduce the inherited existential isolation

(Jurica et al., 2014). The importance of intimacy, which people use to find meaning, for psychological counselors is seen in Ateş's (2016) study. According to Ateş (2016), the social support of psychological counselor candidates, the relationships they establish with relatives in a context positively affect their well-being.

Although there is no significant difference in the averages, when we consider the decrease of approximately one point in the participants' scores in their fourth year, as the psychological counselor candidates are nearing the end of the undergraduate education process, it can be thought that the psychological counselor candidates are distanced from intimacy relations by using suppression and emotional isolation (Blackman, 2014) mechanisms which are the primary defense mechanisms used by adults. Although Turkey is often regarded as a community culture, it also shows individualistic characteristics, especially in areas where urbanization is intense. Kağıtçıbaşı (2008) addressed these characteristics under the title of 'autonomous-relational self' and stated that individuals are autonomous in making decisions and being effective, but still connected to the society through values. The vast majority of students who step into university life are separated from their families for the first time and get into an individualistic existence process. It can be thought that they continued the traditional techniques they brought from their families in the first year of their university life. However, in the last years, there was a decrease in the situation of finding meaning in intimacy with individualization.

The study's findings indicate that there was no significant difference in the participants' scores regarding the achievement, relationship, self-acceptance, self-transcendence, and perceived justice dimensions of the personal meaning profile scale during their academic studies. No similar findings were found in the literature. It may be the subject of another study to investigate which variables shape these dimensions, which influence the way individuals find meaning in their lives.

Conclusion and Suggestions

All in all, contrary to common belief, empathy, which is a skill directly associated with being a psychological counselor, has not changed undergraduate education. A similar study to be conducted with psychological counselor candidates studying at other universities could contribute to the results of this study.

The empathy skills and empathy tendencies of psychological counseling and guidance students with a longitudinal study may be suggested to make a comparison by measuring.

It may be suggested that a cross-sectional and longitudinal study can be conducted using the same tool to measure the empathy levels of psychological counselor candidates to examine the development in their empathy levels during their undergraduate studies.

According to the result of the research, it can be said that the training aimed at improving the empathy levels of the psychological counselor candidates should be made more functional. It can be suggested to enrich the content of psychological counselor candidates to gain empathy skills in both theoretical and practical courses during their undergraduate education. Training can be organized within the Psychological Counseling and Guidance Association.

In addition, the reasons why psychological counselor candidates' search for personal meaning in religion and intimacy is at the highest level at the beginning of undergraduate education but at the lowest level at the end of undergraduate education can be investigated. During undergraduate education, studies that support the search for personal meaning can be planned.

Statement of Responsibility

All of the authors contributed to the study equally.

Conflicts of Interest

There are no conflicts of interest in this study.

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The Relationship between Academic Amotivation and Academic Achievement: A Study on Middle School Students

Akademik Motivasyonsuzluk ile Akademik Başarı Arasındaki İlişki: Ortaokul Öğrencileri Üzerine Bir Çalışma

İlhan İLTER* ⓘD

ABSTRACT: This study aimed to determine whether academic amotivation predicts academic achievement in middle-school students. In addition, it was examined whether the students' academic amotivation levels differed by their gender. Study sample consisted of 342 eighth-grade students from middle-schools in Kahramanmaras city in Turkey. Data were collected from Academic Amotivation Inventory. A simple-linear regression analysis was utilized to examine to what extent academic amotivation accounted for variance in academic achievement. The t-test analysis was used to determine whether amotivation types would differ by gender. Regression analysis results showed that academic amotivation was a significant negative predictor of academic achievement. Results also indicated that significant differences were found between the levels of academic amotivation of students by their gender. Boys were found to be more academically amotivated towards school-related activities and tasks than girls. The reason for the gender difference was that the level of amotivation due to effort beliefs, values placed on the tasks, and characteristics of the tasks, for boys were found significantly to be higher than for girls.

Keywords: Motivation, self-determination theory, amotivation.

ÖZ: Bu araştırma akademik motivasyonsuzluğun ortaokul öğrencilerinin akademik başarıları üzerinde etkisini belirlemeyi amaçlamıştır. Ayrıca çalışmada öğrencilerin akademik motivasyonsuzluk düzeylerinin cinsiyetlerine göre farklılık gösterip göstermediği incelenmiştir. Araştırmanın örneklemini Kahramanmaraş ilinde yer alan devlet ortaokullarında öğrenim gören 342 ortaokul sekizinci sınıf öğrencisi oluşturmuştur. Veriler Akademik Motivasyonsuzluk Ölçeği'nden elde edilmiştir. Akademik motivasyonsuzluğun akademik başarıdaki varyansı ne ölçüde açıkladığını belirlemek için basit bir doğrusal regresyon analizi; motivasyonsuzluk türlerinin öğrencilerin cinsiyetlerine göre farklılık gösterip göstermediğini belirlemek için t-testi analizi kullanılmıştır. Regresyon analizi sonuçları akademik motivasyonsuzluğun akademik başarının negatif yönlü anlamlı bir yordayıcısı olduğunu göstermiştir. Öğrencilerin cinsiyetlerine göre akademik motivasyonsuzluk düzeyleri arasında anlamlı düzeyde farklılıklar belirlenmiştir. Erkeklerin kızlara göre akademik faaliyetlere karşı daha fazla motivasyonsuzluk duygusu hissettikleri bulunmuştur. Cinsiyetten kaynaklanan farklılığın nedeni ise erkeklerin çaba inançlarındaki eksiklikler, görevlere yükledikleri değer eksikliği ve akademik görevlerin özellikleriyle ilgili algılarından kaynaklı motivasyonsuzluk düzeylerinin anlamlı düzeyde daha yüksek bulunmasıdır.

Anahtar kelimeler: Motivasyon, öz-belirleme kuramı, motivasyonsuzluk.

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One of the most salient issues in education is student motivation and engagement (Guay & Bureau, 2018; Kassaee & Rowell, 2016). Motivation plays an important role in academic achievement and participation in the learning environment (Elliot & Dweck, 2005; Linnenbrink & Pintrich, 2002). Therefore, involving students in the learning process and discussions of motivation is more important now than ever (Schwan, 2021). However, maintaining students' engagement, interest, and motivation to learn is difficult (Reeve, 2013). The problem is that if students' psychological and developmental needs, which support motivation and increased self-determination for behavioral engagement, are not met, behavioral engagement may suffer, and students may struggle to successfully complete school-related tasks or activities and achieve desired educational outcomes (Ryan & Deci, 2000).

Self-Determination Theory (SDT)

Self-determination theory (SDT) (Deci & Ryan, 1985) is a model of organismic theory that explains important variables such as psychological growth, personality development, and effective performance. SDT is a theory of motivation and behavior change that can be used to explain motivation for a wide range of behaviors (Deci & Ryan, 1985). It focuses on people's psychological basic needs and the various ways they express and satisfy them. Its major constructs are easily developed into strategies for assisting others in increasing their motivation to engage in a regular activity (Kilpatrick et al., 2002). SDT is particularly interested in how social-contextual factors contribute to individuals' thriving by meeting their basic psychological needs, which must be met in order for psychological interest, development, and well-being to be sustained (Ryan & Deci, 2017). SDT defines that perceived autonomy and relatedness, as well as to perceived competence, can play an important role in fostering high-quality motivation, engagement and that satisfying the psychological needs for competence is particularly important in explaining quantity in motivation (Ryan & Deci, 2002).

The first of SDT's basic needs is autonomy, which is defined as having an internal locus of control and believing that one's actions are freely chosen. A sense of mastery and the beliefs that we are effective at what we do define competence. Autonomy can be defined as a student's desire for control over decisions and a sense of choice within and between activities or tasks (Vansteenkiste et al., 2005). Competence in SDT refers to our basic need to feel effective and mastery, which is to be able to manifest as a learner's need to understand his or her work in order to successfully complete tasks (Ryan & Deci, 2017, p.11). Relatedness is a construct defined by satisfaction and involvement in the social world. This need is satisfied by feeling a sense of connection with other people (Ryan & Deci, 2011). SDT offers, all individuals want to feel autonomous, competent, and relatedness, and this desire leads to participation in activities that meet these basic needs (Kilpatrick et al., 2002).

High levels of perceived autonomy and perceived competence are the main proximal psychological factors implicated in intrinsic motivation (Deci & Ryan, 1985). Autonomy, competence, and relatedness are essentials not only for optimal motivation but also for overall well-being (Ryan & Deci, 2017, p.11). They are essential for psychological resilience, autonomy, performance, and warmth, as well as positive outcomes. However, failure to meet them will result in a lower quality relationship, feelings of incompetence in carrying out the required task, and decrease in well-being

(Levesque et al., 2004). Satisfying these needs results in an increase in self-determined extrinsic motivation, an increase in intrinsic motivation, or a decrease in amotivation (i.e. lack of motivation), all of which contribute to student engagement and achievement (Niemiec & Ryan, 2009). However, a lack of these three needs may contribute to amotivation in students, which leads to poor motivation and engagement, low academic self-esteem, poor educational outcomes, and undesirable academic behaviors in the classroom (Ryan & Deci, 2017).

Amotivation Based on Self-Determination Theory

SDT is a well-studied motivation theory that holds that behavior can be motivated intrinsically, extrinsically, or amotivated (Deci & Ryan, 1985). Amotivation is defined in the SDT as a lack of both intrinsic and extrinsic motivation to engage in a behavior or to execute a task (Ryan & Deci, 2002). The degree to which people are passive, ineffective, or purposeless in relation to any given set of potential actions is defined as amotivation. It is thought to exist when individuals lack competence, perceive less autonomy, and it can indeed reflect the absence of self-determined motivation to act (Ryan & Deci, 2017). Amotivation occurs in SDT when people do not intend to perform a behavior or act in a way that is not mediated by intentionality. This type of motivation arises from a person's perception that they cannot control outcomes of any action or that they cannot effectively perform the required actions. Amotivation, in return, contributes to performing poorly in school, having low academic self-esteem, and displaying behavioral problems in school (Ryan & Deci, 2017). According to SDT, people who are amotivated may believe that their efforts will not result in the desired outcome, nor will help them feel competent, autonomous, or socially connected to their surroundings (Kilpatrick et al., 2002). Ryan and Deci (2002) noted that individuals will be amotivated if the need for competence and relatedness are not also met. Amotivation feeling severely limits the possibility of adopting and adhering to an activity.

The Construct of Academic Amotivation Beliefs

According to self-determination theory, academic amotivation beliefs occur for four distinct reasons (Legault et al., 2006). The first type of amotivation explains that individuals do not act when they believe they are effectively incapable of achieving goals they pursue for themselves. This type of amotivation occurs when a person believes they cannot control outcomes through any action, or when the person believes they are unable to perform an activity. This type of amotivation is based on beliefs (ability beliefs) about a perceived lack of ability (Ryan & Deci, 2002, 2017). Inadequate perception of one's own competence in order to achieve their goals can lead to amotivation (Ryan & Deci, 2000). The SDT proposes that ability beliefs are required for autonomy and competence in order for individuals to be intrinsically motivated (Vlachopoulos et al., 2013). The second type of amotivation is effort beliefs, which are perceptions that individuals do not want to expend the sustained effort required to perform and maintain a behavior. It's possible that they do not believe individuals can initiate or sustain the effort required by academic tasks. Amotivation can be triggered by the perception of a lack of desire and ability to exert the effort required by a particular behavior (Pelletier et al., 1999). The third type of amotivation occurs from a lack of academic values placed on the tasks (value beliefs) (Ryan, 1995). Individuals who have this type of amotivation have no value or interest in a task engagement. It results from a

person's lack of an inner interest in behavior as well as a desire and energy for the results of behavior (Vansteenkiste et al., 2004). People may become amotivated when their behavior has no meaning or interest to them, especially when it does not relate to the satisfaction of psychological needs (Van Petegem et al., 2015). This type of amotivation may exist even if the person has the efficacy or competence to act and sustain it (Ryan & Deci, 2017). The fourth type of amotivation is caused by perceptions of unappealing task or behavior characteristics (task characteristics beliefs). A lack of interest or stimulation in a task can lead to amotivation. A lack of interesting or stimulating qualities in a task, or whether it is boring, routine, difficult, or irrelevant, leads to amotivation, making it impossible to engage students in the task (Ainley et al., 2002). All these types of amotivation beliefs are conceptualized as complementary to the constructs of academic amotivation (Legault et al., 2006), and are generally associated with students' negative school outcomes (Niemiec & Ryan, 2009; Vallerand et al., 1997; Volk, 2020).

The present study aimed to understand to what extent academic amotivation explained academic achievement among middle school students. Also, it was examined whether the academic amotivation levels of the students differed by their genders. The study was conducted for three important reasons. First, although the majority of previous research has focused on the relationships between many variables such as academic motivation, academic achievement, self-efficacy, and learning motivation (Areepattamannil, 2014; Çekim & Aydın, 2018; Çetin, 2015; Datu & Yang, 2019; Karaman et al., 2020; Klem & Connell, 2004; Koca & Dadandı, 2019; Liu & Hou, 2018; Önder et al., 2014; Sıcak & Başören, 2015; Zorbaz, 2018), this study examined whether academic amotivation predicts academic achievement in middle school students. Secondly, in the existing literature in Turkey, little is known about the extent to which amotivation could predict academic achievement in a sample of middle school students (e.g., Akgümüş, 2020; Aydın & Çekim, 2017). Indeed, there is a dearth of studies pertaining to academic amotivation among middle school students in Turkey. Fourthly, as gender is an effective factor in motivation and engagement (Meece et al., 2006; Mori & Gobel, 2006), gender differences in academic amotivation among middle school students were investigated in this study. The main reason for considering gender is that the effect of gender on motivation in existing literature is unclear (e.g., Martin, 2003; Sorvo et al., 2017). Previous studies on the relationship between gender and motivation have yielded inconsistent results. While the results in some other research have shown in favor of girls (Ayub, 2010; Eymur & Geban, 2011; Green-Demers et al., 2008; Martin, 2004), it is in favor of boys in some research (Karataş & Erden, 2012; Lai et al., 2006; Michelli, 2013) in others, it has shown that gender did not affect motivation (Demir & Arı, 2013; Ma, 1999; Yaratan & Kasapoğlu, 2012). All of this suggests that more research is needed to investigate the effect of gender on student motivation. Investigating gender differences in amotivation types may provide middle school teachers with useful information about gender components influencing teaching and learning in their classrooms (Koka & Sildala, 2018).

Given the lack of research on middle school students' constructs of academic amotivation, the present study aimed to address gaps in the literature by investigating the effect of academic amotivation would predict academic performance of middle school students. It is critical to broaden the investigation of academic amotivation in the

middle school level. This is due to the fact that, depending on the characteristics of the middle school period, problems associated with decreased motivation and thus academic achievement may begin to decline (Gehlbach & Roeser, 2002). Previous research has shown that as students progressed through the middle and high school grades, their academic engagement and motivation decreased (Lepper et al., 2005; Otis et al., 2005). Given that academic amotivation is theoretically characterized by a decrease in students' academic performance (Datu, 2017; Turner et al., 2009), this may cause serious problems in the transition of middle school students to secondary school. The following research questions guided the present study.

1. Is there a significant relationship between academic amotivation and academic achievement among middle school students?

2. Is academic amotivation a significant predictor of middle school students' academic achievement?

3. Is there significant differences between middle school students' academic amotivation types and their gender?

Method

Research Design and Participants

This cross-sectional survey study investigated the effect of academic amotivation on academic achievement among the sample of middle school students. In the cross-sectional survey, the researcher collects data at one point in time to assess certain variables immediately and quickly. This design has the advantage of measuring students' current motivation, beliefs or practices as well as their needs (Creswell, 2012). The sample for this study consisted of 342 eighth-grade students from public middle schools in Kahramanmaraş City, in Turkey, chosen at random from all public middle schools for the 2019-2020 school year. In this sample, 193 (56.43%) of students were male, and 149 (43.56%) were female. The easily accessible case sampling technique was used to determine the study group, which provides the researcher with convenient sampling and the ability to obtain data in a short period of time (Creswell, 2012). Students ranged in age from 13 to 14, with a mean age of 13.5 years. Out of 342 participants, 177 (51.75%) were at the middle socio-economic level, 82 (23.95%) were at the high socio-economic level and 83 (24.3%) were at the lower socio-economic level.

Instruments

Two different instruments were used in the present study. These were Grade Point Average (GPA) as defined as academic achievement and Academic Amotivation Scale.

Academic Achievement

Academic Achievement was defined as the participants' grade point average (GPA) at the end of the second semester (last) of the 2019-2020 school year. The participants' grade-point average was 73.8 ranging from 60.5 to 94.5. GPAs in the Turkish education system for middle school range from 0 to 100 point on a 5-Likert scale (85-100=Very high level, 70-84.99=High level, 60-69.99=Medium level; 50-

59.99=Low level, 0-49.99=Fail). Higher scores indicate higher levels of academic performance.

Academic Amotivation Scale (AAS)

The Academic Amotivation Scale (AAS) developed by Legault et al. (2006) and translated into Turkish (after the permission process) by Ilter (2019) was used to assess the academic amotivation levels of the participants. AAS assesses students' reasons for not wanting to study or do their homework using four academic amotivation types (4 items per sub-dimension) and 16 items. Items from the dimensions of ability beliefs (e.g. "Because the tasks demanded of me surpass my abilities"), effort beliefs (e.g. "Because I'm not energetic enough"), value placed on the task (e.g. "Because studying is not valuable to me"), and characteristics of the task (e.g. "Because I find that studying is boring"). These types of amotivation are measured using a 7-point Likert-type response scale anchored by 1 (does not correspond at all) to 7 (corresponds exactly), with students asked to indicate their level of agreement with AAS instrument items. Exploratory factor analysis (EFA) was performed to analyze the factor structure of the Turkish version of AAI using maximum-likelihood extraction and direct Oblimin rotation. EFA results for the AAI Turkish form showed that four factors had eigenvalues higher than 1 (ranged from 1.14 to 3.25) and accounted for 52.12% of total item variance. All items' factor loadings in the AAS-Turkish form ranged from .48 to .70, demonstrating the AAS Turkish form's high level of representability. Confirmatory factor analysis results revealed that scores from the AAS four-factor model were valid in the sample of Turkish middle school students: $\chi2$=1.30, RMSEA=.041, IFI=.95; CFI=.97, GFI=.92, IFI=.94. The internal consistency coefficient of dimensions of AAS-Turkish Version had were α=.77 for the ability beliefs, α=.72 for the effort beliefs, α=.81 for the value placed on the task and α=.75 for the characteristics of the task (Ilter, 2019). For the current sample in this study, the internal consistency coefficients of AAS were α=.88 for ability beliefs, α=.87 for effort beliefs, α=.81 for value placed on and α=.83 for characteristics of the task.

Data Collection

The study was approved by the local ethical committee. The researcher (the author) administered the AAS instrument and informed consent forms in the classroom setting during class time. He informed all participants that their participation was entirely voluntary, they could withdraw at any time, and all responses would remain anonymous. Thus, data were collected from a total of 388 middle school students. Two methods were used in the analysis for missing data in forms collected. First, students who did not respond to 5 or more items on the AAS were not included in the data set. It is a widely accepted common approach to dealing with missing data in the literature (Creswell, 2012). In this context, 17 out of 388 students' AAS form data were omitted from the data set and were not included in the study. Second, students with four or fewer missing responses were given mean values instead of missing values (Creswell, 2012; Tabachnick et al., 2007). As a result, 17 AAS forms were excluded from this study. Finally, 371 scale forms were included in the data analysis.

Data Analysis

The SPSS 22.0 program was used to analyze the study data. Prior to data analysis, it was determined whether the data had a normal distribution. The Mahalanobis distance was used to determine whether or not there are extreme values that make normality (multivariate) and linearity assumptions difficult (Tabachnick et al., 2007). For each participant, the Mahalanobis distance value was compared to the Chi-square value at the $p<.001$ significance level (Tabachnick et al., 2007). Twenty-nine participants were identified as having multivariate extreme values and were excluded from the data analysis. As a result, all statistical analyses were carried out using data from 396 participants, despite the exclusion of 29 participants from the study. Skewness and kurtosis coefficients for all variables were examined in order to test the data's normality assumptions. The skewness coefficients for the academic amotivation sub-dimensions ranged from -1.065 to -.874, and the kurtosis coefficients ranged from -.848 to.789. The coefficient of skewness for academic achievement was found to be -.839 and the coefficient of kurtosis was .812. The fact that all of these values were between -1.5 and +1.5 indicated that all of the variables in the sample had a normal distribution (Tabachnick et al., 2007). The Pearson product-moment correlation coefficient was used to examine the relationships between academic amotivation types and academic achievement. A simple linear regression analysis was used to determine whether academic amotivation would predict the academic achievement. Independent t-test analysis was used to determine whether gender differences play a role significantly in types of academic amotivation of students. In all analyzes, the significance level was accepted as $p<.05$.

Ethical Procedures

This study received ethics approval from the Humanities Sciences Ethical Review Committee of Kahramanmaraş Sütçü İmam University (Dated 18.08.2020 and numbered E. 30974).

Results

The first research question was whether there was a significant relationship between each of type of academic amotivation and academic achievement. Pearson product-moment correlation analysis was performed to examine the relationship between these variables. Results are displayed in Table 1.

Table 1

Descriptive Statistics and Correlations for Variables

Variables	AB	EB	VPT	CT	AA	*M*	*SD*
AB		.420**	.388**	.416**	-.390**	3.43	5.56
EB			.481**	.512**	-.417**	3.88	4.32
VPT				.474**	-.355**	3.33	3.97
CT					-.307**	2.75	3.36
AA						70.51	11.58

**$p<.001$, AB=Ability beliefs, EF=Effort beliefs, VPT=Value placed on the task, CT=Characteristics of the task, AA=Academic achievement

The correlation analysis revealed that each type of academic amotivation was significantly negatively correlated with academic achievement at the $p<.001$ level, as shown in Table 1. The correlation coefficients were $r=-.390$, $p<.001$ for ability beliefs, $r=-.417$, $p<.001$ for effort beliefs, $r=-.355$, $p<.001$ for value attributed to the task, and $r=-.307$, $p<.001$ for characteristics of the task. The highest correlation coefficient was found between effort beliefs and academic achievement.

The second research question of the present study was whether participants' academic amotivation would predict their academic achievement. A simple linear regression analysis was used to whether academic amotivation predicted participants' academic achievement. Academic amotivation was identified as the predictive variable and academic achievement as the predicted variable. Regression analysis results are presented in Table 2.

Table 2

The Regression Analysis Results

Predictor variable	Academic achievement		
	B	*SE*	*β*
Academic amotivation (Total)	-.551	.055	-.421**

**$p<.001$

As can be seen in Table 2, the regression analysis results indicated that academic amotivation significantly predicted middle school students' academic achievement ($β$=-421, $p<.001$). When the standardized coefficient and t value were examined, amotivation was found to be a negative significant predictor of academic achievement (R=.390, R^2=.15, $p<.001$). Overall regression model was significant (F=12.012, $p<.001$). Academic amotivation accounted for 15% of the variance in academic achievement.

Table 3

Results of the t-test for Participants' Types of Academic Amotivation by Their Gender

Variable	Gender	*N*	*M*	*SD*	*t*
VPT	Boy	193	2.237	1.743	2.917*
	Girl	149	2.182	1.607	
AB	Boy	193	2.201	1.025	1.254
	Girl	149	1.996	1.147	
CT	Boy	193	2.731	1.275	3.732*
	Girl	149	2.446	1.839	
EB	Boy	193	2.542	1.941	2.487*
	Girl	149	2.368	1.916	
Total	Boy	193	2.572	1.824	3.261*
	Girl	149	2.250	1.803	

*$p<.05$

Based on the gender variable, the t-test analysis results in Table 3 shows that there were significant differences ($p<.05$) for the value of the task ($t=2.917$; $p<.05$), for the characteristics of the task ($t=3.732$; $p<.05$), for effort beliefs ($t=2.487$, $p<.05$) and for total academic amotivation score ($t=3.261$; $p<.05$). However, no significant difference was found in the ability beliefs ($p>.05$). When comparing each type of amotivation, the characteristics of the task had the highest mean score among other amotivation types in both boys ($M=2.73$, $SD=1.27$) and girls ($M=2.44$, $SD=1.839$). The type of ability beliefs was found to be the lowest mean score for both boys ($M=2.20$, $SD=1.021$), and girls ($M=1.99$, $SD=1.839$). The mean score of the effort beliefs was found to be high for both boys ($M=2.54$, $SD=1.94$) and girls ($M=2.36$, $SD=1.91$). For boys ($M=2.57$, $SD=1.824$) total academic amotivation score were higher than for girls ($M=2.25$, $SD=1.80$). Boys scored higher than girls in all amotivation types. This finding indicated that boys were more academically amotivated toward academic activities than did girls.

Discussion and Conclusion

Results of this study showed that 1) academic amotivation was negatively related to academic achievement indicating that higher academic amotivation was, in turn, associated with lower academic achievement, 2) academic amotivation was a significant negative predictor of academic achievement and it accounted for 15% of the variance in academic achievement. The results were consistent with previous research results (e.g., Balkis, 2018; Legault et al., 2006; Otis et al., 2005; Taylor et al., 2014; Volk, 2020), which similarly was found that level of amotivation of students negatively predicted their academic achievement. One possible explanation for academic amotivation as a negative predictor of academic achievement within the present study could be an influence on students' experience with different types of academic amotivation. First, in the SDT, amotivation is the lowest form of self-determination, resulting in one's feelings of his abilities poorly to carry out the required academic tasks (Ryan & Deci, 2017). A lack of ability beliefs reduces one's sense of competence and autonomy, which lowers engagement and academic outcomes (Wigfield & Eccles, 2000). This is also consistent with Bandura's (1997) contention that the higher the perceived competence related to academic abilities, the more ambitious the challenges that follow. Battin-Pearson et al. (2000) noted that if students perceive uncertainty in their academic skills, they believe that they will not succeed. Second, amotivation due to effort beliefs may lead to various undesirable academic results, including academic disconnection, low engagement, and poor performance (Chouinard, 2001; Perry & Hamm, 2017; Tempelaar et al., 2015). SDT describes effort beliefs that depict one's capacity and desire to invest the energy required by a behavior (Pelletier et al., 1999; Ryan & Deci, 2002). Students may become amotivated even if they believe in their abilities if they do not believe they can maintain the effort required to complete their tasks. As found in this study, previous research has confirmed that a lack of belief in one's own effort is a predictor of academic detachment (Patrick et al., 1993), poor academic performance (Kearney, 2016) and use of metacognitive abilities (Aydın, 2016). Researchers noted that academic detachment is caused by a lack of ability or desire to exert effort for the behavior or activity (Eccles et al., 1993; Patrick et al., 1993). Shen et al. (2010) concluded that amotivation was found to be a negative predictor of students' classroom effort behavior in Physical Education. Therefore, lack

of ability beliefs and lack of effort beliefs may undermine intrinsic motivation, resulting in low-quality performance and emotional well-being (Ryan & Deci, 2002). Third, one of the key determinants of achievement and motivation expectations is the configuration of values (Ryan & Deci, 2017). Task values refer to one's assessment of how interesting, important, and useful a task is (Boiché & Sarrazin, 2007; Wigfield & Eccles, 2002). Ryan and Deci (2000) defined a person who does not believe that values related to a task that provide any intrinsic value, personal benefit value, or attainment value will not execute the task. According to SDT, if an action does not have an internal value or benefit, people cannot feel integrated with the action; thus, they may become amotivated. Researchers found that the values attributed to the tasks are positively related to cognitive performance (Choi et al., 2010). Also, the expectancy-value theory argues that the more intrinsic value a person attributes to an activity, the greater their insistence, participation and performance in the activity becomes (Wigfield et al., 2016). Fourth, when the characteristics of activity and context do not meet the psychological needs of students, they are likely to lead to amotivation (Ryan & Deci, 2017). Academic disengagement may occur if the unappealing characteristics of academic tasks in a school setting are linked to feelings of boredom (Ainley et al., 2002; Ntoumanis, 2001; Ntoumanis et al., 2004). Students are likely to be disconnected if the feathers of school-based tasks or activities do not direct, engage, or stimulate them (Ford & Roby, 2013). Tasks that are considered too challenging for students can cause boredom by decreasing students' motivation and affecting their achievement negatively (Ahmed et al., 2013; Standage et al., 2005). All of these findings indicate that amotivation is a risk factor for middle school students' academic achievement, which has contributed to poor academic performance (Legault et al., 2006) and should be taken into account by teachers before students transfer to high school.

In the study, the results revealed that boys had significantly higher levels of academic amotivation than girls. This study further identified a clear gender difference in academic amotivation favoring boys. Boys seemed to be more inclined to develop a sense of amotivation. Specifically, this was due to the fact that boys scored significantly higher than girls on all types of academic amotivation, including ability beliefs, effort beliefs, value placed on the task and characteristics of the task. On the other hand, both genders showed high levels of amotivation for two types: effort beliefs and task characteristics. This finding supports the notion that there are significant differences in the context of amotivation between boys and girls. Some previous research has shown that boys have more motivational deficits than girls (e.g. Akandere et al., 2010; Alçı & Tümkaya, 2019; Arcagök, 2016; Ertem, 2006; Grouzet et al., 2006; Pajares & Valiante, 2002; Sıcak & Başören, 2015; Tuncer et al., 2018; Yerlikaya, 2014; Yurt & Bozer, 2015). In light of previous research findings, the likelihood of this question being correct is possible. For example, Rowe and Rowe (1999) found that, when compared to girls, boys are more reluctant to participate in activities and put forth less effort to solve difficult problems in-class. Why boys are more amotivated to do academic activities than girls can be explained by the findings of Martin's (2004) study, which found that girls have a greater desire to do corporate together, to be a part of an activity, to concentrate on learning activities and to be more resilient in the face of failure, to adapt to the learning environment. Martin (2004) concluded that girls are more likely than boys to adopt a learning or mastery focus, plan school studies, effectively plan and

manage academic activities, and challenge failure, whereas boys are more prone to self-handicapping in tasks. Nevertheless, it should be noted that the findings in this study are limited to the study's sample. More research is needed to investigate the reasons for gender differences in amotivation among middle school students, including qualitative data and obtaining more detailed results based on the investigation of possible reasons for gender differences in the results obtained.

Implications

Results of this study have yielded important theoretical and practical implications. Results showed that academic amotivation was found to have a significant effect in predicting academic achievement of middle school students. This finding suggests that amotivation may pose a risk to the academic achievement of middle school students and should be taken seriously in the school setting. When students suffer from academic amotivation, it may cause them to avoid academic tasks. This may result in poor performance or failure (Pintrich & Schunk, 2002). To eliminate academic amotivation of students, there is a need for interventions to support their engagement and academic achievement that take into account their psychological needs, including ability beliefs, effort beliefs, and academic value beliefs.

Teachers should play a larger role in creating a classroom environment in which teachers accept students who want to participate in class and actively demonstrate their abilities in learning activities in order to increase students' effort beliefs. This has the potential to influence students' effort beliefs and perceptions of task values (Fryer & Bovee, 2016). Teachers should give students opportunities to take charge of their learning and look for structures to internalize in the classroom. This encourages students' initiative and autonomy. Wherever possible, teachers should provide the optimal support for students to encourage their efforts, and students should be encouraged to take responsibility for their learning and behavior, which increases feelings of autonomy and competence (Alley, 2019; Deci et al., 1996). Teachers can allow students to set learning objectives that will motivate them to work hard to improve their academic performance. To encourage students' efforts, teachers should strive to promote their autonomy and competence, consider their experience, and provide supportive feedback. Teachers can scaffold amotivated students who attribute their failures to their efforts to improve their autonomy and feelings of competence by using strategy instruction components including motivation, modeling, guided practices, and independent practices to support feelings of their students' autonomy and competence (Slavin, 2003). Students will be able to try to rely on their efforts and learn new strategies as they develop new skills. Supporting students by organizing their efforts may increase their responsibility for optimal learning tasks that support self-determination needs, which in turn will also support their academic achievement (Alley, 2019).

Students' ability beliefs are an important source of constructing in the dynamics of motivational development for learning and behavior choices (Eccles, 2005; Wigfield & Eccles, 2002). Teachers should pay close attention to their students' self-perceptions of their abilities. For classroom practice of the teachers, intervention programs could be used to increase students' ability beliefs. For example, Tier 2 provides targeted prevention and academic intervention strategies for students who are amotivated (Fuchs

& Fuchs, 2006). Individualized academic support, performance monitoring, and mentoring practice are among these strategies (Sinclair et al., 2005). Teachers can use these strategies to help students gain academic abilities that will improve or change their practicing, performance, and behavior. The more students who are involved in defining these skills, the more likely students are to see school as a living space where they can reflect on what they have learned. Such intervention strategies can serve as a motivator for students to improve their competence and effort beliefs in their academic abilities.

Teachers have an impact on students' perceptions of their autonomy and competencies, which helps to reduce amotivation. Teachers have, therefore, important responsibilities for their students' learning and behavior. They can encourage amotivated students to communicate more openly in the classroom and to engage in academic, social, and extracurricular activities that allow them to demonstrate their academic skills and effort. Together with their students, teachers can plan curricular activities and tasks that are considered valuable for students and specific to their talents and success expectations. When students fail in their academic abilities, teacher can reduce these student's level of amotivation by providing empowering opportunities for students to experience autonomy and achievement, such as constructive notifications that they are sufficient, what they can do if they put forth effort, and that they can be successful (Locke & Latham, 2002). This supports students to develop positive, achievement-related self-perceptions, values, and a sense of school belonging (Ryan & Deci, 2002). Believing that the student is progressing well in line with their abilities will also meet their intrinsic motivation, curiosity, psychological needs (Pintrich & Schunk, 2002). Students who believe in their abilities will feel more competence and autonomy in taking advantage of challenging opportunities provided by their surroundings. According to previous research, teachers who support students' academic skills and autonomy encourage higher levels of intrinsic motivation in their students (Flink et al., 1990). Students' sense of their abilities can be positively influenced when teachers develop and share positive expectations and beliefs that their students can effectively complete school-related tasks and achieve curriculum outcomes (Slavin, 2003).

In order to strengthen students' task value beliefs, teachers should plan academic activities that are specific to students' achievement beliefs and approaches to learning and that can be deemed valuable for students. They should design meaningful tasks for their students that focus on interest, internal pleasures, and self-improvement rather than comparing them to their peers. Skinner et al. (1990) noted that engaging amotivated middle-school students more fully in learning would be possible if the students were provided with autonomy-supportive activities and were more active and meaningful, thus students will be more autonomously motivated for learning and engagement. Teachers should also explain the reasons and benefits of the activities to emphasize the importance of learning outcomes and improving new skills (Pintrich & Schunk, 2002). They can promote higher quality engagement, achievement, and positive experiences for students by emphasizing the personal significance or perceived value of academic tasks. Creating a mastery-focused task-based environment that incorporates at least one form of value, such as intrinsic value, attainment value, or utility value, may also aid in improving students' task value beliefs. When students believe that the learning activity will benefit them, they will value the activity more by increasing their sense of duty and, as a result, putting in more effort. Students who recognize the importance of the

task and personally support it are more likely to take action. The expectancy-value theory defines that task value beliefs are good predictors of students' achievement behaviors, including choice, persistence, and effort. Students who consider a task useful, important, or enjoyable generally put in more time and effort (Kahraman & Sungur-Vural, 2014; Wigfield & Eccles, 2002).

In this study, amotivation due to task characteristics had the highest average score in both genders. This finding has shown the possibility that perceptions about the characteristics of academic tasks may further provoke amotivation in students. Teachers can use effective methods to motivate students both individually and in groups to create interesting and encouraging academic activities that increase students' beliefs and competencies in their academic skills. Teachers can recognize students for reaching their full potential by designing activities that encourage all students to work efficiently. When a task lacks impressive and interesting features, or if it is perceived as boring and difficult, it may be difficult to engage the student in the activity. This situation may be a contributing factor to amotivation (Ainley et al., 2002). If the activity experience does not arouse the student's value, skills, or willingness to learn, it is possible that the student will not choose to participate in this activity. It is also possible that such an activity will be discontinued or ignored. As a result, unappealing schoolwork can lead to academic disengagement as well as a reluctance to put forth effort. Unappealing schoolwork can cause students to see the school as an unattractive place (Kearney, 2016). Results suggest that teachers and students can collaborate to plan academic activities that are valuable for students in selecting or designing academic activities and are specific to their success expectations and abilities.

In the present study, the results showed that boys were found to have felt more academically amotivated toward academic activities at school than were girls. Accordingly, teachers should be responsible for encouraging boys to avoid negative beliefs about their ability and efforts because these behaviors are associated with higher levels of amotivation. Teachers should also provide boys with positive informational feedback and relatedness supports on their learning progress and do so to benefit their competence needs. Teachers should be responsible for both boys and girls in class in order to encourage them to avoid equally negative motivational processes such as feelings of autonomy or self-determination and feelings of effect or competence, as these behaviors are also associated with higher levels of amotivation. Teachers should foster students' feelings of autonomy and intrinsic motivation.

Limitations and Further Research Suggestions

There were some limitations to this study that should be addressed in future studies. First, because a cross-sectional research design was used, the study limits to draw causal inferences about the relationship between academic amotivation and academic achievement among middle school students. In the future, longitudinal designs should be used to investigate the sequential ordering of these explanatory and outcome variables. Second, the study data was limited to responses of the participants to the sub-dimension items in the AAS instrument. Self-reported data were collected from this study that was a threat to internal validity. Although self-reported measures could be used effectively, participants might have been dishonest or misleading in their responses. To address this limitation, future research should use alternative measures

reasons of students' academic amotivation (e.g., students-report and teacher-report data). In addition, a larger sample size that included the accessible population would yield more reliable data representative of a more diverse population. Finally, because the data was collected from Turkish middle school students in the eighth grade, the findings may not be generalizable to other contexts. Future research among middle school populations from other socio-cultural contexts and different grades may be warranted to test the generalizability of the findings of this study.

Conflicts of Interest

There are no conflicts of interest in this study.

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An Ex-Post Facto Study on the Affective Domain of the 5th Grade English Language Teaching Curriculum*

Beşinci Sınıf İngilizce Öğretim Programının Duyuşsal Boyutu Üzerine Bir Nedensel Karşılaştırma Çalışması

Murat GÜNGÖR** 🆔   **Merve GEÇİKLİ***** 🆔

ABSTRACT: The primary purpose of this study was to analyze the affective domain of the fifth-grade intensive English curriculum. The study sample was 366 fifthgrade students from seven schools selected through convenience sampling from 1803 students in 47 secondary schools in Iğdır. We used "The Scale of Affective Objectives of Teaching English to Young Learners" developed by Şad (2011) to assess 5th grade English language teaching curriculum in terms of the affective domain by comparing pilot schools and regular schools. Besides, "Foreign Language Teaching Activities Scale" by Şad (2011) was the other data collection tool used to explore what sorts of teaching activities, teacher or learner-centered, are used in schools to provide a deeper understanding of the affective domain of the curriculum. The study results showed no significant difference between the students regarding four dimensions of affective domain in terms of certain variables. Students in both pilot and regular schools had a high level of positive attitude towards English language learning. Teacher-centered activities as teaching activities were commonly used in schools. To conclude, the number of class hours did not seem to be a principal factor in changing affective components of attitudes towards English language learning.

Keywords: Teaching English to young learners, affective domain, 5th-grade intensive English curriculum, ex-post facto.

ÖZ: Araştırmanın temel amacı, yabancı dil ağırlıklı beşinci sınıf İngilizce öğretim programının duyuşsal alan boyutunu, uygulama sonrasında uygulamaya tabi olan okullar ile tabi olmayan okulların karşılaştırılarak incelemektir. Araştırmanın örneklemini, Iğdır ili Merkez ilçe sınırları içerisinde yer alan 47 ortaokulda eğitim gören 1803 öğrenci arasından uygun örnekleme metodu ile 7 okul arasından seçilmiş olan 366 ortaokul 5. sınıf öğrencisi oluşturmaktadır. Programın duyuşsal alan boyutunun incelenmesi için Şad (2011) tarafından geliştirilen "Çocuklara Yabancı Dil Öğretiminin Duyuşsal Hedefleri Ölçeği" kullanılmıştır. Yabancı dil derslerindeki öğretim etkinliklerinin ne sıklıkla yapıldığını ölçmek için ise yine Şad (2011) tarafından geliştirilen "Yabancı Dil Öğretim Etkinlikleri" ölçeği kullanılmıştır. Araştırmanın bulguları, duyuşsal alan boyutunda, Yabancı Dil Ağırlıklı 5. Sınıf programının uygulandığı okullar ile uygulanmayan okular arasında anlamlı bir farklılık olmadığını göstermektedir; öğrenciler yabancı dil derslerine ve yabancı dil öğrenmeye yönelik yüksek düzeyde olumlu tutuma sahiptir. Yabancı dil derslerinde yapılan etkinlikler incelendiğinde ise, daha çok öğretmen merkezli etkinliklerin yapıldığı sonucuna varılmıştır. Bulgulardan hareketle, İngilizce dersine yönelik duyuşsal yönde öğrencilerin tutumunda ders saat sayısındaki farklılığın belirleyici bir etken olmadığı sonucuna varılabilir.

Anahtar kelimeler: Çocuklara yabancı dil öğretimi, duyuşsal boyut, yabancı dil ağırlıklı 5. sınıf İngilizce ders öğretim programı, nedensel karşılaştırma.

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Today, the welcoming position of English results in the spread of a common belief that English competency is the first and foremost expected qualification for many, including those whose native languages are different. Thus, the number of people learning Englishincreases as they aim to be part of international communication. In this regard, it is widely stated that English proficiency can empower students, and especially teaching English at early ages can contribute more to this situation because young learners are more curious and active in learning process (Nikolov, 2016). Besides the effect of globalization, the other end widely emphasized concerning learning a foreign language during childhood is affective factors. In planning foreign language education, policymakers have started to care for affective domain, that is, moods, feelings, and attitudes of learners based on social constructivist and humanistic paradigms. Şad (2011) pointed out the importance of creating a positive learning environment in the change of feelings and attitudes of young learners towards foreign language learning. Thus, based on these facts, governments are to shape their policies of English language teaching.

Since the beginning of attempts for the European Union membership, policymakers in Turkey have been trying to adapt its curriculum in English language teaching to European language education (Kirkgoz, 2007a). Thus, as a result of 4+4+4 system reform, the English language teaching curriculum of 2013 was designed to include second and third graders. The curriculum of the following grades was reconstructed based on the demands of the new policies (Ministry of National Education [MoNE], 2013). With an early start of English language education from 6 years of age (Güngör, 2017; Kirkgoz et al., 2016), this reform has oriented the curriculum toward such an embracing system that, on the contrary to the curriculum of 2006 – in which there was no emphasis on objectives related to the affective domain – the activities and materials guiding teachers to make students become motivated and develop positive attitudes toward English classes have been suggested (MoNE, 2006, pp. 37-39). Besides, this curriculum reform also seems to be the first step for shifting from teacher-centered teaching to student-centered communicative language teaching (Kirkgoz, 2007b). Followingly, in 2017, another policy change regarding the education of English via communicative models through English Language Teaching Curriculum for 2nd-8th grades was done. For 5th grades of secondary schools, an intensive English language study program was designed, which aimed to enable students to use at least a foreign language fluently with improved methods and design for active learning in public schools (MoNE, 2017). During 2017-2018 academic years, the curriculum was implemented in 5th grades chosen as pilot schools.

As the policy change and implementation have been relatively new cases, it would be of interest to investigate the relevant issues and explore, if there, further points regarding the effectiveness of the process in terms of learning a foreign language. In this regard, from a specific and significant point, the current study will focus on the affective domain issue moving on the fact that studies put the importance of affective factors in predicting the attitude of learners towards language learning (Cameron, 2001; Demirezen, 2003; Fırat, 2009; Moon, 2000; Sümen, 2008; Şad, 2011). By the way, especially in terms of tangible embodiment of affective domain, it would result in the wonder of whether the curriculum implemented has resulted in any change in affective components of learners' attitudes towards English language learning. Thus the current

study will evaluate how affective domain has been dealt within the curriculum. Although some studies focus on affective domain issues in foreign language learning within the Turkish context, their number is low (e.g., Kardeşler, 2010; Şad, 2011; Ulusoy, 2003). Moreover, no previous study of the new curriculum has been reported. Thus, the main aim of this study is to determine whether 5th-grade students who have got 5th grade English Language Teaching Curriculum score differently than the 5th-grade students who have not regarding four dimensions -attitudes towards learning a foreign language and English course; attitudes towards foreign people and cultures; desire and effort to learn a foreign language; foreign language anxiety- of affective domain in terms of certain variables.

Considering that foreign language learning is a life-long journey, we can emphasize that children's first experiences should focus on affective gains such as motivation, attitude, and self-confidence before basic communication skills (European Council, 2009, p. 5). When these desired affective goals cannot be achieved, the negative emotions make it difficult for foreign language learners to communicate in the target language (Gordon, 2007, p. 75). Moreover, suppose the child's initial experiences and impressions at the primary school level, which the child has met with foreign language, is negative. In that case, the child may develop strong negative feelings towards the foreign language in the next grade (Schindler, 2006, p. 8).

In general, developing positive attitudes towards learning foreign languages, foreign people, and their cultures, particularly developing positive attitudes towards foreign language lessons, is one of the affective goals of foreign language teaching curricula (European Council, 2009). Encouraging students to learn a foreign language and eliminating negative feelings such as foreign language anxiety, and enabling the student to feel safe and comfortable with learning a foreign language or communicating in a foreign language can also be shown as affective objectives (Komorowska, 1997). Besides positive attitudes, student-centered learning tends to provide more opportunities for increasing productivity and success and communicating compared to teacher-centered learning. It is clear that the aim of foreign language teaching is not only to teach students some grammar rules and vocabulary, but also how to use the knowledge in practice to express or explain ideas. For teachers and academics, it would be helpful to introduce this student-centered cooperative language learning method to the language learning class (Zhang, 2010). In addition, parents also play a critical role in students' foreign language learning by providing cognitive and emotional support to their children at home (He et al., 2015). Families can positively influence their attitude and motivation by encouraging their children to learn a foreign language (Nikolov, 2009). Parents involved in their children's education will better understand how their children are more academically successful (Partin, 2017).

Chinese learners aged 7-12 years in primary school are very eager to learn English in the study of their motivation to learn English as a foreign language (Liao, 2004). Corpus et al. (2009) have examined the change in the motivation of their 3rd-8th grade students to learn a foreign language. There is a positive correlation between motivationand academic achievement in the study. Mostafavi and Vahdany (2016) found that the learners, who have education on affective strategies, have a lower level of anxiety in English classes. They also found that positive statements encourage the learners. Highly successful students have stronger internal learning motivations, and

they use more effective language learning strategies and experience more positive feelings. Still, the students with low success have stronger external learning motivation, use more effective language learning strategies, and get more negative feelings (Tan, 2016). MacIntyre and Vincze (2017) examined the effect of positive and negative emotions on learning a second language in their study. The results show that positive emotions are strongly associated with consistent and motivational variables. Atlı (2008) aimed to determine students' attitudes towards English and English lessons in primary schools in Turkey. As a result of the study, most students have positive attitudes towards English language skills, teaching materials, and activities, English language and language skills have been developed and internally motivated. Şad (2011) conducted a study to examine the level of primary education first grade English curriculum to realize the affective objectives of teaching a foreign language to children in terms of some variables. In his doctoral dissertation, he found that male students participating in the study had more positive attitudes towards foreign language learning and English lessons than their female students, and their foreign language concerns and foreign language concerns were lower. In her master thesis, Kalipci (2015) found that affective variables affected students' success in foreign language learning. Results suggest that there is an inverse relationship between the affective filter and academic achievement. Therefore, teachers should minimize the situations that students may be anxious about in the classroom environment. This study's results might address this information gap by looking into if there would be a question raised resulting from any disconnection between theory and practice because of probable intervening variables such as teachers, materials, etc.

On this basis, precisely, the following questions will guide the current study:

Research Question 1: What is the difference between 5th grade students who have and have not got 5th grade English Language Teaching Curriculum to the four dimensions of affective domain (attitudes towards learning a foreign language and English course; attitude towards foreign people and cultures; desire and effort to learn a foreign language; foreign language anxiety)?

Research Question 2: Is there a difference between 5th grade students who have and have not 5th grade English Language Teaching curriculum in terms of gender to the four dimensions of affective domain?

Research Question 3: Is there a difference between 5th grade students who have and have not 5th grade English Language Teaching curriculum regarding parental support to the four dimensions of affective domain?

Research Question 4: Is there a difference between 5th grade students who have and have not 5th grade English Language Teaching curriculum in terms of teacher-centered and student-centered activities?

Method

Moving on quantitative paradigm, we followed an ex post facto research design, also called causal-comparative research, to examine the cause and consequences of differences between or among the group of participants after any experiment or instruction in the context (Fraenkel et al., 1993). Although this is not an experimental study, an ex-post facto design would help us understand if the new curriculum creates a difference in affective factors.

Research Setting and Participants

After the official permissions were taken from Iğdır Provincial Directorate of National Education (numbered 19255454-44-E.5800971, dated 20.03.2018) in Turkey, we learned the total number of students in Iğdır Province. The demographic data given by the directorate showed that 920 male and 883 female students were studying in 47 different secondary schools. The study sample was 366 5th grade students from 7 schools selected through convenience sampling from 1803 students in 47 secondary schools in Iğdır.

Table 1

Descriptive Statistics of Female and Male Students

	Schools	Female Students	Male Students	Total Students
Pilot Schools	School 1	39	32	71
	School 2	16	21	37
	School 3	28	34	62
	Total	83	87	170
Regular Schools	School 4	56	34	90
	School 5	4	9	11
	School 6	11	14	25
	School 7	37	31	68
	Total	108	88	196
Total	7 Schools	191	175	366

Six of the questionnaires were excluded from the study as the students did not complete them. We involved all the responses from 366 students from 7 schools (See Table 1).

Data Collection Tools and Process

To collect the quantitative data, we used two instruments developed by (Şad, 2011). "The Scale of Affective Objectives of Teaching English to Young Learners" was used to measure the affective levels of children for the language education, and "Foreign Language Teaching Activities Scale" was designed for measuring the frequency of the instructional activities in classrooms.

The first 35-item scale was formed by Şad (2011) by considering the previous studies and the literature review. In the exploratory factor analysis part, 260 fourth and fifth students answered the scale, and Şad (2011) shortened the item numbers from thirty-five to seventeen in four factors. These factors are as follows: motivation, desire and effort to learn a foreign language, attitude towards learning a foreign language and English course, foreign language anxiety, and attitudes towards foreign people and cultures. To test the four-factor scale, he carried out a confirmatory factor analysis with 366 fourth and fifth-grade students, and this analysis proved the four-factor construct of the scale.

The second scale, "Foreign Language Teaching Activities Scale", was used to analyze the frequencies of the activities in foreign language classes. For this scale, a 34-item was formed in the item pool, and all items in the pool were taken to the scale by referring to scientific sources, curricula, research articles, and theses. After exploratory factor analysis, the number of the items decreased to 21 items out of 34 items in two factors, namely student-centered activities and teacher-centered activities. To confirm the hypothesis in the exploratory factor analysis, he carried out the confirmatory factor analysis with 391 fourth and fifth grades students. The results confirmed the two-factor construct of the scale.

In the original scales, the responses of the students were designed with three smileys. Three smileys show that students totally/partially or never agree with the statements. However, in this study, the participant group was just fifth graders. The fifth-grade students are supposed to understand the 5-point Likert type scale, and this 5-point Likert type scale might give us more detailed results in terms of the affective levels of students. Therefore, the scale was adapted to a 5-point Likert type scale for more sensitive results.

The reliability coefficients for "The Scale of Affective Objectives of Teaching English to Young Learners", was determined as .867, and the reliability coefficients were .780, .778, .764 and .614 for the factors of desire and effort to learn a foreign language, attitude towards learning a foreign language and English course, foreign language anxiety, and attitudes towards foreign people and cultures respectively. The reliability coefficients for "Foreign Language Teaching Activities Scale" was determined as .892, and the reliability coefficients were .851 and .769 for the factors of student-centered and teacher-centered foreign language teaching techniques respectively. While Field (2009) takes the value of .80 as reliable, Büyüköztürk (2007) consider .70 as a criterium to accept a scale as a reliable one. Considering these values, both scales can be regarded as reliable. Among 47 schools, the researcher got in contact with 7 secondary schools, in three which 5th grade English language teaching curriculum was implemented, and in the other four schools, 3-hour English language teaching curriculum was still going on. Then, students were asked for their consent to participate in the study; 372 students voluntarily participated.

Data Analysis

Before starting the analysis and interpretation of quantitative data, normality assumptions were analyzed for the variables to decide on whether parametric or non-parametric tests were suitable for the data analysis. Skewness and Kurtosis values were checked for the normality assumption (Field, 2013). Skewness values for the variables ranged from .072 to -.481, and Kurtosis values were ranged between -.444 and -.695. As the acceptable limits of ±2 were accepted by many researchers (Field, 2000, 2009; George & Mallery, 2010; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006), some also consider the acceptable range for Skewness and Kurtosis below +1.5 and above -1.5 (Tabachnick & Fidell, 2013) and below +1 and above -1 (Şencan, 2005). Following these researchers, the values for variables were accepted as normal, and parametric tests were conducted for the data.

The second assumption is homogeneity of variances. To check the homogeneity of variances, Levene's test was used, and the results of the test were nonsignificant

(F=8.642; p=.003) for "The Scale of Affective Objectives of Teaching English to Young Learners" and significant (F=.732; p=.393) for "Foreign Language Teaching Activities Scale". To sum up the assumptions, parametric tests were used in this study. A t-test was used to determine the difference between two sample means from two normally distributed populations with unknown variances. In addition to it, we presented descriptive statistics to describe the frequencies, standard deviations, percentages, and means.

Ethical Procedures

The researcher applied for the permission to collect data from schools on 14.03.2018, and Iğdır Provincial Directorate of National Education and the Governorship of Iğdır approved the permission (numbered 19255454-44-E.5800971, dated 20.03.2018). This decision was issued to the first author on 21.03.2018 with the number of 19255454-44-E.5855135.

Results and Discussion

Affective Domain Level of the Students

The distribution of the t-test results that the students get from the Affective Objectives Scale of Teaching English to Young Learners scale was given in Table 2. When the data in Table 2 were examined, there was no statistically significant difference between the schools in which the students study in terms of students' attitudes towards learning a foreign language and English course [t(366)=.977, p=.329]. However, the students in the pilot schools had a higher attitude towards learning a foreign language and English course. As the standard deviation was smaller (4.669), the distributions of the students in the pilot schools were more homogeneous. In general, students in normal schools had a close attitude towards learning a foreign language and English course when compared to those in pilot schools.

When the findings related to the Desire and Effort to Learn a Foreign Language are examined, there was not a statistically significant difference according to the school types [t(366)=1.062, p=.289]. The average scores of students in pilot schools were slightly higher than those in regular schools. Thus, it cannot be said that studying at the pilot school has a significant influence on desire and effort to learn a foreign language. When the findings related to Foreign Language Anxiety were examined, there was no statistically significant difference according to the school types [t(366)=-.489, p=.625]. There was very little difference between the averages in favor of regular schools. In light of this finding, the foreign language concerns of pilot and non-pilot school students were similar. When the findings related to Attitude towards Foreign People and Cultures were examined, there was no statistically significant difference according to the types of schools [t(366)=.994, p=.321]. There was no significant difference between the averages. That is, it can easily be said that their attitudes towards foreign people and cultures were similar. Examining the students' average in all dimensions, we realized no meaningful difference [t(366)=.857, p=.392]. The average of total score of students in pilot schools was slightly higher than in normal schools.

Table 2

T-Test Results in the Affective Domain Level between the Students of Pilot Schools and Regular Schools

Dimensions	Pilot or Regular	N	Mean	SD	df	t	p
Attitude towards Learning A Foreign Language and English Course	Pilot	170	19.55	4.669	363.240	.977	.329
	Regular	196	19.05	5.144			
Desire and Effort to Learn A Foreign Language	Pilot	170	17.41	4.640	363.898	1.062	.289
	Regular	196	16.85	5.443			
Foreign Language Anxiety	Pilot	170	16.18	4.165	353.300	-.489	.625
	Regular	196	16.39	4.036			
Attitude towards Foreign People and Cultures	Pilot	170	11.62	3.249	352.651	.994	.321
	Regular	196	11.29	3.132			
Total	Pilot	170	64.76	12.965	359.607	.857	.392
	Regular	196	63.58	13.391			

*p<.05

The pilot application was being implemented for the first time in 2018, making it difficult to compare with any other study. Although there was no significant difference between the pilot schools and the normal schools in terms of the affective areas of students, the general tendency in Europe was to increase the time to pass for at least one compulsory foreign language teaching, and, thus, to increase the age of commencement of compulsory foreign language teaching (Eurydice, 2005). Foreign language teaching can occupy European countries' educational policies for many years and can be started from an early age in Europe (Şevik, 2008). However, to achieve the desired success, the number of learning outcomes in the preparatory class curriculum should be reduced and students should be reviewed according to their level of preparation. For instance, Dincer and Koc (2020) also confirmed that overloaded curriculum was one of the most significant problems for teachers. In this case, it may be helpful if the content, educational status, and test conditions are re-arranged. (Dilekli, 2018). There is no reason for these results in the literature due to being a new application. Due to the new implementation, the expected objectives for the implementation of the curriculum in pilot schools may not have been achieved. English teachers can also get used to a new curriculum in the progress of time. Failure to provide in-service training for teachers involved in the preparatory practice may have prevented them from creating the desired level of difference in pilot schools.

Gender and Parental Support on the Fours Dimensions of Affective Domain

When the data in Table 3 and 4 were examined, students' *Attitude towards Learning A Foreign Language and English Course* differed statistically significantly according to the gender of the student in pilot schools [$t(170)=3.771$, $p<.05$]. When arithmetic averages were examined, female students' attitudes towards learning a foreign language and English course ($\bar{X}=20.87$) were more positive than male students'

($\bar{X}$=18.29). In regular schools, no difference can be seen with the pilot schools [t(196)=4.348, p<.05]. When we look at the previous studies, Japanese female students have superiority over male students in their attitudes towards learning English (Kobayashi, 2002). Karahan (2007) found that the female students had a more positive attitude towards the English language. Şad (2011) also found that girls' attitude scores were higher than males'. On the other hand, Atlı (2008) found no differences in terms of gender in terms of attitudes. Therefore, it can be said that female learners mostly show more positive attitudes towards learning a foreign language and English course. The male and female students had a high positive attitude towards foreign language learning and English lessons. However, female students' attitudes towards learning foreign languages and their English courses were more positive than male students. There was a statistically significant difference between them.

The female students' desire and effort points for learning foreign languages ere higher, and the male students were at the intermediate level. According to this, female students were more desirous of learning a foreign language than male students, and they make more efforts, and there was a statistically significant difference between them.

Male and female students participating in the study did not have a high level of foreign language anxiety. Female students' foreign language concerns are higher than male students, but there was no statistically significant difference between them. The students who participated in the study did not have a high level of positive attitude towards foreign people and cultures, but female students had a higher level of positive attitude than male students, and there was a statistically significant difference between them. This confirms the social orientation of females and their positive attitudes and greater motivation towards learning a foreign/second language (Baker & MacIntyre, 2000).

Table 3

The T-Test Results of the Level of Having Affective Characteristics According to the Gender of the 5th Grade Students in Pilot Schools

Dimensions	Gender	N	Mean	SD	df	t	p
Attitude towards Learning A Foreign Language and English Course	Female	83	20.87	3.540	151.373	3.771	.000
	Male	87	18.29	5.254			
Desire and Effort to Learn A Foreign Language	Female	83	18.99	3.875	163.261	4.597	.000
	Male	87	15.91	4.829			
Foreign Language Anxiety	Female	83	16.51	4.165	167.621	.990	.324
	Male	87	15.87	4.165			
Attitude towards Foreign People and Cultures	Female	83	12.54	2.539	154.765	3.766	.000
	Male	87	10.75	3.606			
Total	Female	83	68.90	10.797	162.414	4.291	.000
	Male	87	60.82	13.669			

*p<.05

Table 4

The T-Test Results of the Level of Having Affective Characteristics According to the Gender of the 5th Grade Students in Regular Schools

Dimensions	Gender	N	Mean	SD	df	t	p
Attitude towards Learning A Foreign Language and English Course	Female	108	20.45	4.412	165.842	4.348	.000
	Male	88	17.32	5.468			
Desire and Effort to Learn A Foreign Language	Female	108	18.03	5.228	183.863	3.432	.001
	Male	88	15.41	5.381			
Foreign Language Anxiety	Female	108	16.80	3.981	184.368	1.552	.122
	Male	88	15.90	4.071			
Attitude towards Foreign People and Cultures	Female	108	11.75	2.952	177.362	2.275	.024
	Male	88	10.73	3.269			
Total	Female	108	67.03	12.076	174.470	4.099	.000
	Male	88	59.35	13.773			

*p<.05

There was a statistically significant difference according to the gender of the student when the findings related to the *Desire and Effort to Learn A Foreign Language* sub-dimension were examined in pilot schools [$t(170)=4.597$, $p<.05$]. Similar to the previous sub-dimension, female students showed a higher level of desire and effort to learn a foreign language than male students. The answers of the students in non-preparatory schools gave almost the same results [$t(196)=3.432$, $p<.05$]. Atlı (2008) and Şad (2011) found that female students were more motivated to learn foreign languages than male students. Ataman (2017), although no significant difference by gender among students' overall level of motivation, stated that the average was higher than female students.

In contrast to the other sub-dimensions, when the Foreign Language Anxiety sub-dimension findings were examined, there was a statistically significant difference according to the gender of the students in pilot schools [$t(170)=.990$, $p=.324$]. As in the previous sub-dimensions, the same results were observed in both school types. There no statistically significant difference according to the gender of the students in regular schools [$t(196)=1.552$, $p=.122$]. It can be said that female students were a bit more worried than male students, but it was not a clear difference. It can be said that foreign language concerns exist in both genders. Sertçetin (2006) concluded that, in general, and in the comparison of the two classes of male and female students, the girls tend to be concerned about their friends' thoughts and thus fear being judged more negatively than male students. However, the situation was the opposite in terms of exam anxiety and attitude towards foreign language. Şad (2011) stated that male students' foreign language concerns were greater than female students.

When the findings related to *Attitude towards Foreign People and Cultures* were examined, in pilot schools, there was a statistically significant difference according to the gender of the student [$t(170)=3.766$, $p<.05$]. The same results were found in the

other school type [$t(196)=2.275$, $p<.05$]. By looking at their average, it can be said that female students' attitudes are more optimistic than male students. According to Wright's research, there is a hypothesis that foreign language learning has beneficial effects on students' attitudes towards foreigners. In his study, girls had a more positive attitude towards foreign language and culture than male students against French language and culture (Wright, 1999). Considering the overall scores in pilot schools, we found a statistically significant difference according to the gender of the students [$t(170)=4.291$, $p<.05$]. In regular schools, there was also a statistically significant difference according to the gender of the students [$t(196)=4.099$, $p<.05$]. If examined in total, female students were more likely to have affective objectives than male students. The average of female students was considerably higher than that of male students. According to the findings of Bernat and Lloyd (2007), who investigated the effect of gender on language teaching, men and women generally had similar beliefs about language learning. In a study of 149 students in Iran, the findings show a significant gender difference in the use of language learning strategies as a whole. Female students also tend to use general language learning strategies more frequently than men. It uses women's social/emotional strategies more than male students (Zeynali, 2012). According to a study examining students' strategies for learning English in China, gender played an essential role in gender-related strategies, and female students used compensation and affective strategies more frequently than male students (Goh & Foong, 1997).

The findings indicated that the help of the parents of their children in foreign language lessons was not a determining variable in terms of the sub-dimensions. Students whose parents always or sometimes had not helped or helped foreign language courses had a high level of positive attitude towards learning a foreign language and an English course. There is no statistically significant difference between them. From this point of view, it can be said that parental support does not affect students' learning foreign languages and attitudes towards English course. Likewise, students whose parents had always or sometimes not helped or helped foreign language courses had a high level of positive attitude towards desire and effort to learn a foreign language, and there is no statistically significant difference between them. Regardless of parental support, all students experienced a lower level of foreign language anxiety than usual. In other words, it can be said that parental support does not have any effect on foreign language anxiety. Similarly, all students with or without parental support had a negative attitude towards foreign people and cultures. To summarize, parental support had a significant effect on students. The previous studies do not support this finding. Families can positively influence their attitude and motivation by encouraging and encouraging their children to learn a foreign language (Nikolov, 2009). Parents who are involved with the education of their students will better understand the ways in which their children are more academically successful (Partin, 2017). However, English is a specific course that parents cannot help if they are not good at English. Considering the claims that Turkish people cannot use English accurately and fluently due to the long years of instruction, and the family and the media are the primary models in learning a foreign language (Bodur & Arikan, 2017), the lack of statistical differences in the whole scale might be the low English level of parents. The influence of parents on the child can be both passive and active, and active promotion means better language learning. Parents'

attitudes play a significant role for their children. They can actively participate in various ways at home and school, reflecting their positive attitudes towards language learning. Still, they need to be very careful about pushing their children instead of encouraging and praising their efforts (Rosenbusch, 1987). We do not live in an English-speaking environment in Turkey; therefore, only a small number of parents can speak English or help their children improve their English at home. As a result, children do not have the chance to practice English outside the classroom (Tavil, 2009). Because of the lack of English in parents and the inability of their children to provide the necessary support in language learning, the effect of parental support on foreign language teaching may not be as high as expected in this research.

When the data in Table 5 and 6 were analyzed, no statistically significant difference was found between the students' *Attitude towards Learning A Foreign Language and English Course* according to the frequency of helping parents with foreign language lessons in pilot schools [$F(169)=.646$, $p=.525$]. In Table 6, no statistically significant difference was found in regular schools [$F(195)=1.068$, $p=.346$]. This result revealed that whether parents help students did not affect students' attitudes towards learning a foreign language and English course.

Table 5

The Level of Affective Characteristics according to the Frequency of the Parents' Help in the Foreign Language Lessons in Regular Schools

Dimensions	Parental Support	N	Mean	SD	df	F	p
Attitude towards Learning A Foreign Language and English Course	Never	94	18.51	5.496			
	Sometimes	68	19.69	4.473	195	1.068	.346
	Always	34	19.24	5.377			
Desire and Effort to Learn A Foreign Language	Never	94	16.31	5.837			
	Sometimes	68	17.13	4.917	195	1.069	.345
	Always	34	17.79	5.296			
Foreign Language Anxiety	Never	94	16.43	4.307			
	Sometimes	68	16.26	3.839	195	.065	.937
	Always	34	16.56	3.743			
Attitude towards Foreign People and Cultures	Never	94	11.29	3.198			
	Sometimes	68	11.21	2.990	195	.080	.923
	Always	34	11.47	3.305			
Total	Never	94	62.53	14.326			
	Sometimes	68	64.29	11.830	195	.589	.556
	Always	34	65.06	13.806			

*$p<.05$

When the findings related to the *Desire and Effort to Learn A Foreign Language* sub-dimension were examined, there was no statistically significant difference between

the parents' frequency of helping the child in foreign language lessons of pilot schools [$F(169)=.958$, $p=.386$]. The same result was found for the other school type [$F(195)=1.069$, $p=.345$]. The children of the parents who always help their children' foreign language classes had higher levels of desire and effort to learn a foreign language than those who sometimes help and never helpers. However, the difference between the variables is not significant enough in terms of the rate of explanation of variance. Therefore, it cannot be interpreted that parental assistance has a clear and significant effect on the desire and effort to learn a foreign language.

When the findings related to the *Foreign Language Anxiety* subscale were examined, there was not a statistically significant difference between the parent's frequency of helping the child's foreign language lessons [$F(169)=.648$, $p=.524$]. The difference between the groups is not large enough. Therefore, it can be said that the help of parents does not have a clear effect on foreign language anxiety. Also, there is not a statistically significant difference in regular schools [$F(195)=.065$, $p=.937$].

Table 6

The Level of Affective Characteristics according to the Frequency of the Parents' Help in the Foreign Language Lessons in Pilot Schools

Dimensions	Parental Support	N	Mean	SD	df	F	p
Attitude towards Learning A Foreign Language and English Course	Never	46	18.91	5.210			
	Sometimes	75	19.91	4.001	169	.646	.525
	Always	49	19.59	5.103			
Desire and Effort to Learn A Foreign Language	Never	46	16.61	4.933			
	Sometimes	75	17.65	3.818	169	.958	.386
	Always	49	17.80	5.447			
Foreign Language Anxiety	Never	46	16.76	4.078			
	Sometimes	75	15.88	4.165	169	.648	.524
	Always	49	16.10	4.273			
Attitude towards Foreign People and Cultures	Never	46	11.43	3.436			
	Sometimes	75	11.75	2.824	169	.130	.878
	Always	49	11.61	3.707			
Total	Never	46	63.72	13.849			
	Sometimes	75	65.19	11.386	169	.204	.815
	Always	49	65.10	14.515			

*$p<.05$

When the findings related to the *Attitude towards Foreign People and Cultures* sub-dimension were examined, there was not a statistically significant difference between the parents' frequency of assisting the child in foreign language lessons [$F(169)=.130$, $p=.878$]. The difference is also not big enough to demonstrate a statistically significant difference in regular schools [$F(195)=.080$, $p=.923$].

When Table 5 and 6 were examined as a whole, there was not a statistically significant difference between the parents' frequency of helping the child in foreign language lessons [$F(169)=.204$, $p=.815$]. The same results can be seen in Table 6 [$F(195)=.589$, $p=.556$]. These findings indicate that the parents' frequency of helping the child was not a determinant variable in foreign language courses in terms of *Attitude towards Learning A Foreign Language and English Course, Desire and Effort to Learn A Foreign Language, Foreign Language Anxiety* and *Attitude towards Foreign People and Cultures.*

Teacher- or Student-Centered Activities in Pilot and Regular Schools Domain

When the results were analyzed as a whole, more teacher-centered activities were done in the classes, and student-centered activities were not practiced sufficiently. Based on the quantitative findings, it was observed that the most frequently applied activity of the teachers was asking students to translate English-Turkish words or phrases. Translation helps students understand what the translation reads based on their performance in responding to reading comprehension questions (Tsagari & Floros, 2013). The translation is important not only because it allows us to talk to each other, or because each of us allows us to read what the other writes, sometimes because we find it difficult to talk to each other, and especially provides insight into what we like or understand (Bell, 1991). However, the common belief in language teaching is the use of student-centered activities rather than a teacher-centered translation method. Student-centered learning is the 21st-century concept that applies technology and a new curriculum using the students' abilities to achieve higher standards than traditional learning styles (Zmuda, 2009). Bell (2010) has defined student-centered teaching as the foundation of the curriculum, not an additional activity to support learning. The main reason for more frequent use of teacher-centered activities is that it is easier for teachers than student-centered activities (Nikolov, 2009). Instead of changing the students' behavior with a teacher-centered approach in the education process; With the help of a student-centered approach, the emphasis is placed on developing the student's mental skills and structuring knowledge (MoNE, 2004, p. 13). In the student-centered learning approach, contrary to traditional education, information is not memorized. How to obtain it, where and how it will be used in life, how to learn from information is taught. So, it is essential to produce more than memorizing information (Kuran, 2005). Aslan (2008) defines the class in which student-centered activities are carried out: mutual social relations, independent research and studies, creativity in the forefront, and rich learning experiences in its structure.

Şad (2011) also stated that the 4th and 5th grade elementary school students who participated in the study did not sufficiently conduct student-centered activities in foreign language courses, literature, and the course curriculum. On the other hand, it is stated that teacher-centered activities that are not pedagogically preferred in the literature and the course curriculum is intensively taught. In a study conducted by Bulut (2008) in Diyarbakır, in order to determine the views of teachers about the student-centered practices foreseen in the new primary education curriculums, the current educational environment, the recognition and implementation of the curriculum, and the views of the curriculum were examined in terms of gender, class level, seniority, and

class size variable. According to this, teachers did not find the learning environment where the teaching curriculums are applied sufficient for student-centered applications. Based on such a conclusion, it can be stated that the educational environment of primary schools is not enough to carry out student-centered activities. It is understood that the physical facilities of schools are insufficient for student-centered activities. For example, although there are many listening activities in the curriculum, some schools do not have any materials that allow teachers to do these activities.

The students' answers show that the teachers did not bring the picture cards to the class. Similarly, teachers did not bring puppets to the class as English-speaking activity. Although time was allocated for playing games, solving puzzles, and watching movies, drama and role-playing activities were not carried out enough. The students' answers in the study showed that there was not enough time for any student-centered activities in the courses. According to the students' answers, the most used activity of teachers in English lessons was translation. The other most frequent activities in the classroom were memorization, question-answer teaching method and drills. The results of the study show the dominant use of teacher-centered activities in foreign language courses.

Table 7

T-Test Results According to the School Where the Teaching Activities Are Applied

Dimensions	Pilot or Regular	*N*	Mean	*SD*	*df*	*t*	*p*
Student-centered Activities	Pilot	170	28.44	9.452	364	-2.940	.067
	Regular	196	32.26	11.382			
Teacher-centered activities	Pilot	170	33.21	7.435	364	-1.834	.001
	Regular	196	34.82	9.114			
Total	Pilot	170	61.64	15.278	364	-2.940	.003
	Regular	196	67.08	19.459			

*p<.05

When the data in Table 2 were analyzed, there was no statistically significant difference between the points given by the students to the Student-Centered Activities sub-scale [$t(364)$=-2.940, p=.067], and there was a statistically significant difference between the points given by the students to the Teacher-centered Activities sub-dimension of the scale [$t(364)$=-1.834, p<.05]. This can be interpreted as giving more places to teacher-centered activities in schools. In pilot schools, fewer teacher-centered activities were observed than in regular schools. For this reason, students in pilot schools may have higher attitudes towards learning a foreign language and English course than other students.

Conclusion

Based on the findings from the quantitative results of this study, the students had a high level of positive attitude towards foreign language learning and English lessons.

Therefore, students generally like to learn foreign languages, and they find it enjoyable. Even they want to learn other foreign languages. In this context, English lessons are enjoyable for them, but it is not their favorite course. In contrast to this general positive attitude towards learning a foreign language, both positive and negative attitudes towards the English course were observed. The most important reasons for students' negative attitudes towards the English course were the lack of sufficient student-centered fun activities, which they enjoyed in the lessons. On the contrary, they were exposed to teacher-centered activities, and they did not prefer them because they found those activities boring.

Students were observed not to have a high level of positive attitude towards foreign people and cultures. In other words, students do not want to know different cultures, meet foreign people and talk to them when they meet. As a result of the students' motivation to learn foreign languages, they tried to repeat what they had learned in the lessons at home and showed a high level of desire to go to a private course to learn better English. However, children's desire and efforts remain neutral when they want to study English in their leisure time, to work on English even on holidays, and to speak English with their friends or family.

The foreign language anxiety level of the students was not high. Students feel comfortable in foreign language courses in general. Their level of anxiety about learning and using foreign languages was not high. In other words, students were not worried about speaking or reading in front of the class, not responding to the teacher's questions, taking exams, taking low grades, not understanding the lesson, giving the teacher a minus, and being angry with the teacher.

Both groups had a high level of positive attitude towards foreign language learning and English lessons. The attitudes of students in pilot schools towards foreign language learning and English classes were more positive than the students in regular schools. However, there was no statistically significant difference between them. The scores of students' desire and effort to learn a foreign language were higher than the regular school students. This means that pilot school students are more desirous of learning a foreign language than regular school students, and they make more efforts. However, this difference was not a considerably enough amount. For this reason, it cannot be claimed that the students studying in the pilot school have a greater desire and effort to learn foreign languages. Pilot school students and regular school students who participated in the study did not have high level of foreign language anxiety. In this respect, it cannot be said that studying at a pilot school had any positive effect on reducing foreign language anxiety. The students, who participated in the research, had an approximately negative attitude towards foreign people and cultures.

According to the results of the study, there was no significant difference between the pilot schools and the normal schools in the students' attitude to the course. This might indicate that the instructional strategies, methods, and techniques were not sufficiently reflected in the practice. In order to achieve the desired success, we need to re-evaluate the number of objectives of the preparatory class studies, and check the readiness levels of the students. Arranging content, educational situations, and test cases might be useful (Dilekli, 2018). The reason why the students do not reach enough affective features adequately might be related to the lack of student-centered activities. Another reason might be the anxiety levels of students. This result shows that the

teaching strategies, methods and techniques designed in the curriculum did not reflect on practice. As a solution, foreign language teachers can try to develop themselves in the professional sense by following the related literature, especially the course curriculum because the curriculum of the course was giving explanations about what they should do to avoid negative situations.

It is evident that the cultural, social, and economic patterns of societies are constantly changing and evolving. It is imperative to keep up with these changes. Scientific and technological developments require new skills (Rogers, 2009). Thus, MoNE can organize comprehensive in-service training to support their teachers with these skills and knowledge. Since this is a new curriculum, there may be some problems in the curriculum. To eliminate these problems, the new curriculum can be re-arranged based on the views of students and teachers. Foreign language teachers should try to develop themselves professionally in terms of how they can make the lessons more fun and suitable for the student's level by following the related literature, especially the course curriculum. The fact that foreign language education consists of theories, methods, and materials, the new Turkish curriculum and materials should be considered the most important component of foreign language education to increase its success (Işık, 2008).

In language learning, anxiety plays a debilitating role (Na, 2007). Taking into account the foreign language anxiety of the students in this study, we should focus on to use process-oriented evaluation methods and techniques effectively. The primary objective of English teaching should be to make students love the language, so students' exam anxiety should be minimized.

We cannot disregard the contribution of families. It is clear that families have an essential role in their children's positive attitude towards foreign language, and they can persuade their children of the importance of speaking a second language. Considering the effect of parents on their children's attitudes towards language learning (Bartram, 2006), teachers collaborate with parents in their students' learning adventure.

Certainly, the current research also has some limitations. To ensure consistency of the findings nationally or internationally, the study should be replicated with different participants. In addition, the schools selected in this study do not represent the whole of Turkey.

Conflicts of Interest

There are no conflicts of interest in this study.

Statement of Responsibility

Murat Güngör; methodology, resources, data collection, validation, analysis, writing – original draft, writing – review & editing. Merve Geçikli; methodology, resources, validation, analysis, supervision.

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Values Conveyed through Distance Education in Geometry Courses during COVID-19

COVID-19 Sürecinde Uzaktan Eğitim ile Geometri Derslerinde Aktarılan Değerler

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ABSTRACT: Due to the COVID-19 pandemic, countries have had to adapt their usual teaching environment and processes to distance education. The purpose of this study was to investigate the Grade 9 geometry course contents shared on the Education Information Network (EBA) platform in terms of mathematics values (mathematical values and mathematics educational values). This study was a qualitative research based on document review. Data were collected from the Grade 9 geometry course contents in the EBA affiliated to the Turkish Ministry of National Education (MoNE) and analysed using semantic content analysis. The results showed that the mathematical values such as objectism, openness, rationalism, and the mathematics educational values such as formalistic view, inquiry, instrumental understanding, facts & theories are often emphasised in geometry courses through distance education. The results of the study were also compared with the results of studies of mathematics courses through face-to-face education in the related literature and some suggestions were also made for further studies in this context.

Keywords: COVID-19, distance education, grade 9 geometry course contents on the EBA, values, mathematical values, mathematics educational values.

ÖZ: COVID-19 salgını nedeniyle, ülkeler alışılagelen öğretim ortam ve süreçlerini uzaktan eğitimle değiştirmek zorunda kalmıştır. Bu bağlamda bu çalışmanın amacı, Eğitim Bilişim Ağı [EBA] platformunda paylaşılan dokuzuncu sınıf geometri ders içeriklerini matematik değerleri (matematiksel değerler ve matematik eğitimsel değerleri) açısından incelemektir. Bu anlamda bu çalışma, doküman incelemesine dayalı nitel bir araştırmadır. Veriler, Milli Eğitim Bakanlığı [MEB]- EBA platformundaki 9. sınıf geometri ders içeriklerinden elde edilmiş ve anlamsal içerik analizi kullanılarak analiz edilmiştir. Sonuçlar, nesnellik, açıklık, rasyonellik gibi matematiksel değerler ile formalistik bakış, sorgulama, araçsal anlama, olgular ve teoriler gibi matematik eğitimi değerlerinin uzaktan eğitim ile yapılan geometri derslerinde sıklıkla vurgulandığını ortaya koymuştur. Araştırmanın sonuçları, ilgili literatürdeki yüz yüze eğitim ile yapılan matematik derslerine yönelik çalışmaların sonuçlarıyla da karşılaştırılmış ve bu bağlamda ileri çalışmalar için de bazı önerilerde bulunulmuştur.

Anahtar kelimeler: COVID-19, uzaktan eğitim, 9. sınıf geometri dersi EBA içerikleri, değerler, matematiksel değerler, matematik eğitimi değerleri.

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The whole world lives in uncertain times in 2020 due to COVID-19 pandemic, and in this process, public health is at the forefront of our minds. Most schools all over the world have been interrupted in the 2019-2020 school year with the ways we have never seen before. These crises have naturally led to disruptions in the relationships among students and between students and teachers in the learning and teaching of mathematics. Although no one has an insight into what education will be like in the coming processes and times, we should plan well for them to consider how to meet the needs of students in the best way. For this purpose, the National Council of Supervisors of Mathematics (NCSM) and the National Council of Teachers of Mathematics (NCTM) have prepared a joint report for COVID-19 to make informed decisions and take steps for the future. The document is organised around three major areas for equitable access to high-quality mathematics teaching and learning in the pandemic situation: structural considerations, teaching practices and, advocacy. Thus, it targets to build and sustain a positive identity and disposition towards mathematics for all teachers and students (NCSM & NCTM, 2020). Aims and tendencies of the three major areas indicate that many things will differ in the learning and teaching of mathematics during the COVID-19. For example, in this process, distance education can be considered compulsory because of the shutdown of schools to prevent the spread of COVID-19 and students and teachers' dispositions such as attitudes, beliefs, and values towards mathematics can differ.

Education and COVID-19

Educators have become aware of the two important goals of education since the Confucius and Socrates periods. These goals are to convey the meaning and importance of the past and prepare students for future challenges. Because the things that students need to learn change over time, naturally educational environments, conditions, and curriculums should not be static. They should be updated constantly according to the requirements of the century. In many countries around the world in recent years, they have already been significantly revised because today's students live in a digital world and use the possibilities of this world in different ways (e.g., distance education, access to online resources). For example, nineteenth-century students had no choice but to go to school. Nowadays, scientific knowledge evolves very quickly, but at the same time, social problems become very complex. Radical changes are made in the learning environments and processes to respond to them (Organisation for Economic Co-operation and Development [OECD], 2019c). As mentioned before, COVID-19 has often caused an unpredictable rapid change in the learning and teaching environments and processes. Formal education has been suspended in many countries due to COVID 19, which now affects the globe, and it has been declared a pandemic disease by the World Health Organization (WHO). As a result, many countries (e.g., Turkey, China) decided to switch to distance education at all education levels.

Distance Education and Mathematics Teaching

In recent years, technological innovation has become widespread. These developments have deeply influenced many things, including the emergence and rise of schools that teach fully distance education, as well as how to teach in traditional face-to-face schools, how curricula will be, and what the nature and level of the courses will be

(Juan et al., 2012). However, it is seen that distance education has been defined in many ways. For example, Taylor (2015) defined distance education as a formal education process in which most of the instruction in a course (interaction among students, between students and teachers) occurs when students and teachers are not in the same place. Moore (2019) also saw distance education as "the methodology of structuring courses and managing dialogue between teacher and learner to bridge that gap through communications technology." (p. 34). As these definitions indicate, distance education generally refers to a situation where students and teachers are in different environments and communication with technology devices is established. Distance education courses can also be synchronous or asynchronous and can be done in many ways: the use of the internet, broadband lines, cable, microwave, wireless communication devices, and audio conferencing etc. (Taylor, 2015).

On the other hand, like technology, mathematics is also not value-free; it promotes certain types of behaviour (see Bishop, 1988). Also, throughout history, economic, technological, and scientific needs have been the priority in the adventure of development of mathematics. Mathematics is, therefore, not a static part of knowledge and a complete process. In all cultures and at all times, mathematics can and will evolve and continue to carry cultural values and pieces within (Haylock & Thangata, 2007). Curricula, teachers, and institutions should address the perception and emotions provoked by this discipline (Barbera, 2012). In addition, cultural differences can lead to the teaching of the same mathematical content with different approaches (Seah, 2003), and therefore teaching mathematics might vary in different cultures and educational systems (Atweh & Seah, 2008).

Meanwhile, new developments in educational technology are changing the way of teaching (Juan et al., 2012). Considering these innovations, the teaching of mathematics also introduces different approaches, such as distance education, as well as traditional face-to-face instruction. With these new approaches, new values and beliefs will be conveyed to mathematics teaching environments and processes consciously or unconsciously.

Values and Mathematics Teaching

OECD Learning Compass 2030 has suggested a very conceptual and useful framework for future teaching. The framework defined four essential competencies: knowledge, skills, attitude, and values, which are developed interdependently (OECD, 2019b). This current study focused on values only from these competencies, considering the new values that accompany evolving teaching approaches adopted during the pandemic.

Values are effective in the individuals to continue and commit to any action they choose in the learning and teaching of mathematics (Seah & Andersson, 2015). For example, if someone values creativity, s/he might want to pursue a career in the art field. A person who greatly values public service can join the society to serve others (Diestler, 2012). Cognitive competencies and emotional dispositions of a student (i.e., as a conative variable) are aligned with learning in any socio-cultural learning environment given (Seah & Andersson, 2015). In this context, Lim and Ernest (1997) classified the values in mathematics education: epistemological values, social and cultural values, and personal

values. Bishop (1988) also categorised three types of values conveyed in the mathematics education: general educational, mathematical, and mathematics educational values. General educational values relate to the values of the general society, such as obedience, honesty, integrity. Mathematical values are the values produced by mathematicians who grow up in different cultures and reflect the nature of mathematical knowledge (Bishop et al., 1999). At this point, Bishop (1988) used four-component dimensions of culture proposed by White (1959/2007). These: ideological component, sentimental component, sociological component, and finally technological component. Bishop (1988) also interpreted the four components in terms of mathematical thinking and values and evaluated mathematics as containing symbols, expressing that cultural growth could be through mathematics and other technologies (Seah, 2008). In this context, Bishop (1988) considered the technology component an umbrella of three complementary mathematical value pairs.

Additionally, mathematics educational values are the values that reflect the pedagogical aspect of school mathematics (Seah et al., 2017), and they refer to the extent to which the trends of norms and practices related to the teaching or learning of mathematics are valued (Seah, 2011). Both mathematical and mathematics educational values have the potential to affect the quality of a student's learning of mathematics. General educational values do not directly affect students' mathematics performance (Seah et al., 2017).

Distance Education and Mathematics Values in Turkey

Here, the distance education process in Turkey (during the COVID-19) and the mathematics values (mathematical values and mathematics educational values) of mathematics teachers and students in Turkey are briefly summarised.

Distance Education during the COVID-19 in Turkey

Formal education was paused for a week in schools in Turkey due to the COVID-19 pandemic on March 16, 2020, and distance education started on March 23, 2020. Considering that many students do not have access to online education (see Bakker & Wagner, 2020), distance education has started for more than 18 million students at primary, secondary, and high school level through three new state television channels (the Turkish Radio and Television Institution (TRT) - Education Information Network [in Turkish EBA] TV primary school, TRT EBA TV secondary school, and TRT EBA TV high school), and the EBA, whose network capacity has been increased in this one-week period by MEB. As of March 23, 2020, it has been decided to continue the distance education broadcasts, which started on the televisions of the TRT, until at least April 30, 2020 with the suggestion of the COVID-19 Scientific Committee formed by the Ministry of Health of Turkey. Later, MEB decided to continue this distance education process until June 1, 2020. Then it decided to end this period with distance education completely (until June 19, 2020). In addition, if everything went normal, MEB announced that schools would begin face-to-face education on August 31, 2020. As of November 2020, schools switched to hybrid models for various education levels.

In this context, on television channels that are opened separately for primary, secondary, and high school levels, 20-25 minutes of course rebroadcast at all grade levels (K-12) continue until evening hours. EBA, one of the largest digital education platforms

in the world that provides online service, offers students rich contents and over 20 thousand interactive content and live broadcast. EBA is a social educational electronic content network established by the MEB. Contents and course materials needed by teachers and students, which will help education, are provided online to all students and teachers in Turkey via the internet within the scope of "Movement of Enhancing Opportunities and Improving Technology" Project (FATİH), which was launched in 2010. The FATİH project aims to use information technology tools effectively in courses to address more sense organs in the learning-teaching process to achieve equality of opportunity in education and improve technology in schools in Turkey (MEB, n.d.). EBA was established within the scope of FATİH project.

EBA enables the integration of technology into education by using information technologies and provides reliable content suitable for class levels. In addition, education firms, teachers and students can upload their content to the EBA platform. Furthermore, parents can see the quality of the education by following it on EBA. Consequently, MEB recommends that students follow their courses on TRT EBA TV; use EBA for review, missing topics and questions, and teachers help their students remotely through different communication tools (internet, mobile phone, etc.) in this process. Three major Global System for Mobile Communications (GSM) operators in Turkey also provided free internet service for all students, and their parents up to 6-8 gigabyte (GB) for access to the EBA, as all courses are available online. Thus, Accessibility and Equality principles were tried to be provided among the basic principles of the FATİH Project.

Mathematics Values in High Schools in Turkey

The MEB is responsible for compulsory education in Turkey, and compulsory education in Turkey is free and lasts for 12 years. The education system of Turkey is based on an examination-oriented education (Dede, 2019), and students continue their education careers based on the results of high-stakes examinations with multiple choice conducted at the end of middle and high schools. This naturally causes a lot of pressure on the students. In the recent Programme for International Student Assessment [PISA] 2018, the ratio of the achievement level of the lower level of students in Turkey decreased, the ratio of the achievement level of higher-level students increased. In addition, it is at the top of the trend of Turkish students' internal motivations and mathematics values (OECD, 2019d). Some research studies have been conducted to determine what students and teachers' value in the context of mathematics courses. In a recent study (Dede & Barkatsas, 2019), 511 high school grade ninth students (14-15 years old) in Turkey responded to survey items, which asked them what they found important in their mathematics learning. The six most valued attributes of mathematics learning were found: relevance (C1), practice (C2), information and communications technology (ICT) (C3), feedback (C4), learning approach (C5), and consolidating (C6). Findings of this study showed that ninth-grade students value relevance in their mathematics learning highly. Also, the descending order of the value mean scores for grade ninth were practice-consolidating-relevance-learning approach-feedback-ICT and practice-feedback-learning approach-consolidating-relevance-ICT, respectively. In addition, the results pointed out that ninth-grade students see practice as the most important value for their mathematics learning within six values.

With high stake examination in Turkey, students are measured with mathematical skills and the ability to use time as efficiently as possible. For this reason, the students need to solve as many mathematics questions and problems as possible to pass these exams. Conversely, ICT value was valued least by grade ninth students when compared to the other five values. This result shows that students still cannot give up traditional teaching methods, although ICT has been gradually incorporated into the day-to-day mathematics teaching and learning activities in educational settings in Turkey. Similarly, the results of a recent qualitative study of Dede (2019) with ninth-grade students were also partially like those of Dede and Barkatsas (2019). Accordingly, the students' mathematics values are gathered in four main categories: practice, relevance, rationalism, and fun. In this study, practice value was determined to be among the values that students in Turkey give importance.

Purpose and Importance of the Study

The purpose of the current study is to examine the Grade 9 mathematics course contents shared on the EBA platform in terms of mathematics values. Due to the COVID-19 pandemic, countries have had to change their usual teaching environment and processes (especially formal education) with distance education. Moreover, in this process, the traditional boundaries in practices have suddenly changed (Bakker & Wagner, 2020). All cultures and, therefore, education systems are also affected by this sudden and rapid change. This can also lead to a change in the values that societies, cultures and therefore education systems conveyed. This is because no education system is neutral, and every state and society want to convey their values to their students for their own future (Powe, 1993). Therefore, it is important to know the values conveyed in teaching processes for a conscious values education (Hill, 1991).

Moreover, the values conveyed in the teaching processes of mathematics affect the quality of students' mathematics learning experience (Seah et al., 2017). In this context, values are conveyed to students in formal education processes and environments, as well as in distance education environments or via television consciously or unconsciously. In this sense, when the relevant literature is examined, it is determined that there are no studies examining the values conveyed to students in distance education environments, although there are some studies examining the mathematics values of teachers (e.g., Aktaş & Argün, 2018; Dede, 2015; Lin et al., 2006) and students (e.g., Dede & Barkatsas, 2019; Zhang et al., 2016) at the formal education levels (especially in the Grade 9) have been conducted. In this context, it will be possible to compare the results of the current study within the possible similarities and differences of the aforementioned studies, which reveal the mathematics values conveyed to students through formal education in terms of socio-cultural and conative aspects. In addition, Bishop (1988) evaluated the technology component as an umbrella of the mathematical values. Therefore, we can consider distance education and its applications under the technology component here. This can enable values that are not possible to be determined in traditional face-to-face education.

Moreover, as mentioned before, the importance of determining the values conveyed in the EBA mathematics course contents with distance education increases, even more, considering that the ICT value is the value that the middle and high school

students in Turkey value least. In this sense, the current study is thought to be a significant contribution to the literature. Additionally, by comparing the results of the present study with the results of previous studies conducted with formal education and exemplified above, the role and effects of this sudden and rapid change in mathematics teaching environments on the conveyed mathematical values in teaching processes can be clearly seen. Nowadays, when mathematics teaching is evolving rapidly and suddenly, it is thought that the knowledge and results regarding the possible evolution of the values conveyed in today's teaching processes can also guide all education stakeholders (policy and curriculum makers, teachers, etc.) in order to provide a more conscious education of values.

On the other hand, the content of the courses developed on the EBA platform will be examined affectively and socio-culturally. Thus, it is planned to offer some suggestions for the development of teaching processes of mathematics, not only in terms of cognition but also in terms of affective and socio-cultural aspects. It is also thought that the content of EBA mathematics courses to be developed in the context of these possible suggestions can be an important and rich resource in terms of being compatible with 21st-century skills and the OECD Learning Compass 2030 competencies. For these purposes, the problem statement of this study is as follows:

What are the mathematics values conveyed through distance education in ninth-grade geometry courses with EBA videos in Turkey during the COVID-19 pandemic?

Method

Research Design

In the current study, course videos were used as data source. First of all, the course videos were transcribed so that documents to be used within the scope of the study were created. In this respect, the current study is a qualitative research conducted through document review.

Data Collection

Data were collected from the Grade 9 geometry course contents that exist in the EBA affiliated to the MEB between March 23, 2020, and April 30, 2020 (see Table 1). All Grade 9 geometry course contents at the EBA were taught by a male mathematics teacher with more than 20 years of seniority. Support from experts from the MEB and the universities in Turkey was also received to prepare and present the course contents.

Table 1

Grade 9 Geometry Course Contents

	Time	Lesson
9-1	20:00	Lesson 1: Angle-Side Relationships in a Triangle-1
9-2	23:51	Lesson 2: Angle-Side Relationships in a Triangle-2
9-3	21:06	Lesson 3: Angle-Side Relationships in a Triangle-3
9-4	25:09	Lesson 4: Congruent Triangles- 1

9-5	25:15	Lesson 5: Congruent Triangles- 2
9-6	27:39	Lesson 6: Similarity in Triangles – 1
9-7	24:24	Lesson 7: Similarity in Triangles – 2
9-8	23:05	Lesson 8: Similarity in Triangle – 3
9-9	23:42	Lesson 9: Auxiliary Elements in Triangle – 1
9-10	28:25	Lesson 10: Auxiliary Elements in the Triangle-2
9-11	22:29	Lesson 11: Auxiliary Elements in Triangle-3
9-12	31:34	Lesson 12: Auxiliary Elements in Triangle-4
9-13	31:44	Lesson 13: Pythagorean Theorem
9-14	29:27	Lesson 14: Euclidean Theorem
	357 min 50 sec	25.755 words

After the contents to be analysed were determined and transcribed, repeated review, examination and interpretation were made to obtain the meaning and empirical information of the values in the EBA contents. A sample geometry course content for Grade 9 is presented in Table 2.

Table 2

Sample Course Content Transcripts for Grade 9 (First 2 Minutes)

Subject: Lesson 1, The Angle-Side Relationship

Friends, our subject is to show the angle-side relationships in the triangle.

We can first explain the relationship between angle and side with a relation like this.

ABC üçgeninde
$m(\hat{A}) \geq m(\hat{B}) \geq m(\hat{C}) \Leftrightarrow a \geq b \geq c$
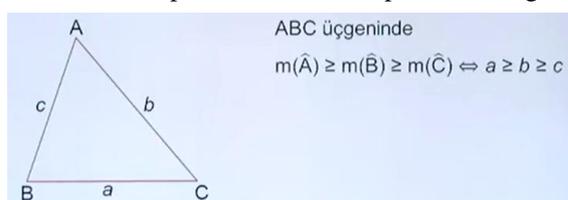
A triangle has a longer side across a big angle and a small side across a small angle. If the angle measures are equal, the opposite sides are equal.

So, the side gets longer as the angle gets bigger, and the angle gets bigger as the side gets longer. But we are not saying that there is a proportion. We are just trying to say that if we reduce the measure of the angle, we reduce the length of side, if we reduce the side, we reduce the angle. If the measures of the angles are equal, we say that the sides are equal.

In a triangle ABC, if the angle measure A is greater than or equal to B, the angle measure B is greater than or equal to C, then order of the side lengths become as follows: length of side a is greater than or equal to side b, length of side b is greater than or equal to side c and vice versa. $(m(\hat{A}) \geq m(\hat{B}) \geq m(\hat{C}) \Leftrightarrow a \geq b \geq c)$

The ordering between the edges will give the ordering between the angles. Let's not try to establish any proportion; please just go with the logic of greater than or smaller. Friends, our next feature is these.

Data Analysis

Semantic content analysis, one of the qualitative data analysis methods, was used to analyse the videos. Semantic content analysis is the process of creating subcategories

to detect themes in a text or phenomenon (Tavşancıl & Aslan, 2001). In this sense, the EBA contents reviewed were analysed based on the values and value signals that emerged in the literature (for example, Bishop, 1988; Dede, 2012, 2015, 2019; Dede & Barkatsas, 2019; Lim & Ernest, 1997; Seah, 1999, 2011). As mentioned above, the general educational values have not been analysed in the current study since they do not directly affect students' mathematics achievement (Seah et al., 2017). In the present study, in the EBA contents, mathematics values (mathematical values and mathematics educational values) are chosen as topic areas. In this sense, words, sentences or paragraphs, and contents can be considered as an analysis unit (Yıldırım & Şimşek, 2008). In this study, mathematics values that exist in the EBA content are examined in the terms of sentence to prevent the probability of missing the meaning of the sentence while analysing words and paragraphs (Yıldırım & Şimşek, 2008) by considering indicators of the aforementioned values. And the analyses continued until theoretical saturation was reached (Arber, 1993). A word that points to a value can also refer to both mathematics, mathematics education, and general educational value (see Seah & Bishop, 2000). Some examples of how Grade 9 geometry courses are analysed in terms of mathematics values are presented in Table 3.

Trustworthiness of the Study

"Theoretical triangulation" (Cohen et al., 2018, p. 266) was applied in this study to reveal the values by comparing the value signals/codes in the literature. Peer review was used in this study in order to ensure reliability (Lincoln & Guba, 1985). Values, which authors coded, were also coded separately by two experts in mathematics education. In this context, 10% of the EBA contents for each grade level examined were given to these two experts (MacNealy, 1999), and they were asked to separate these contents independently according to the values and value signals. In the light of expert feedbacks, values were updated. At the end of this process, Kappa values calculated between researchers and experts were calculated as .86 and .91, respectively. These values indicate a significant agreement in coding between researchers and experts (see Landis & Koch, 1977).

Ethical Procedures

In this study, archived course contents and videos on the EBA platform affiliated to the Ministry of Education were used. Therefore, no data was collected from any participant. Since no data was collected from any participant, it was not deemed necessary to apply to ethical committee.

Results

In this section, mathematical and mathematics educational values of 14 course videos were examined. Sample analysis in terms of mathematics values of mathematics course contents is given in Table 3.

Table 3

Sample Analysis of Geometry *Courses in terms of Mathematics Values*

Statements	Mathematics Values	Value Signal
Friends, our subject is to show angle-side relationships in the triangle	Openness	Interpersonal distance– use of pronoun 'we' and related forms.
		Interpersonal distance– use of 'student(s)' etc.
A triangle has a longer side across a big angle and a small side across a small angle. If the measures of the angles are equal, then the opposite sides are equal.	Formalistic view of mathematics learning	Introduction of new vocabulary through definitions
		Teaching through verbal explanation
So, the side gets longer as the angle gets bigger, and the angle gets bigger as the side gets longer. We are not saying that there is a proportion. We're just trying to say that if we reduce the measure of the angle, we reduce the length of side, if we reduce the side, we reduce the angle.	Openness	Interpersonal distance --- use of pronoun 'we' and related forms
	Formalistic view of mathematics learning	Teaching through verbal explanation
Let's see what we are facing	Mystery	Wonder
If the angles are equal, we say that the length of the sides is equal. In a triangle ABC, if the angle measure A is greater than or equal to B, the angle measure B is greater than or equal to C, then order of the side lengths become as follows: length of side a is greater than or equal to side b, length of side b is greater than or equal to side c and vice versa. $(m(\hat{A}) \geq m(\hat{B}) \geq m(\hat{C}) \Leftrightarrow a \geq b \geq c)$	Openness	Interpersonal distance– use of pronoun 'we' and related forms.
		Interpersonal distance– use of 'student(s)' etc.
	Formalistic view of mathematics learning	Teaching through verbal explanation
	Rationalism	Use of logical connectors
	Objectism	Symbolisation adopted
Sort the side lengths given in the figure from shorter to longer.	Facts & theories	Context-free
	Objectism	Visualisation
The sum of the measures of the two internal angles is equal to the measure of the non-adjacent external angle, then the measure of this angle is 72°.	Instrumental understanding	Performance expectation-knowing
	Rationalism	Use of logical connectors (then)
	Inquiry	Inquiry, investigation
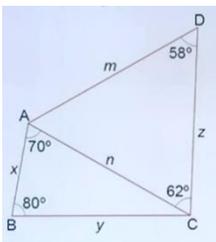
So, what do you see when you look at it? The largest of the red group is n, and the smallest of the blue group is n. So, there is a sequence between these side lengths in the form of x<y<n<z<m	Rationalism	Use of logical connectors (So)
	Objectism	Symbolisation adopted

When Table 3 is examined, in the first example (*friends, our subject is to show angle-side relationships in the triangle*), the teacher conveys the openness value according to value indicators of Seah (1999). In the second example (*A triangle has a longer side across a big angle and a small side across a small angle. If the measures of the angles are equal, then the opposite sides are equal*), the teacher conveys the formalistic view of mathematics learning value (see Seah, 1999; Seah & Bishop, 2000), because the teacher teaches new words and concepts through definitions. In another example, the mystery value *(Let's see what we are facing)* is conveyed according to Seah's (1999) value indicators. In the last example (*So what do you see when you look at it? The largest of the red group is n, and the smallest of the blue group is n. So, there is a sequence between these side lengths in the form of $x < y < n < z < m$*), the teacher conveys the inquiry value, rationalism by using a logical conjunction (see Bishop, 1988; Seah, 1999), and objectivity by expressing verbal expression symbolically (see Seah, 1999). In this way, the transcription of 14 lessons was examined in detail according to the value indicators.

As a result of the analysis, it was determined that objectism, openness, and rationalism in mathematical values are frequently espoused in the courses. If the mathematical values were analysed in pairs, it was determined that more emphasis is given to the openness of the openness-mystery value pair, and each of the value pair of objectism-rationalism was emphasised in a balanced way. Also, it was observed that there was not much emphasis on the control -progress value pair in the courses. On the other hand, in terms of mathematics educational values, it was determined that there was frequently emphasis on the values of formalistic view of mathematics learning, inquiry, instrumental understanding, facts & theories. If the mathematics educational values were examined in pairs, it was determined that there was more emphasis on formalistic view of the mathematics learning-activist view of mathematics learning value pair and more emphasis was given to instrumental understanding of the instrumental understanding-relational understanding value pairs. In terms of fact & theories - ideas & practice value pairs, it was observed that there was more emphasis on facts & theories. It was determined that there was little emphasis on the ideas &practice value. It was also observed that there was an emphasis on the inquiry value during the course. However, this emphasis on inquiry value remained only an attempt, as feedback was not received from students due to the asynchronous distance education. It was also determined that very little feedback was given after the attempt to transfer the inquiry value. Finally, it was also observed that there was more emphasis on the computation value of the application-computation value pair.

Discussion

In this section, the results of the present study are discussed in terms of the mathematical and mathematics educational values of Grade 9 students in face-to-face education, the teachers who teach at this level and the values conveyed in the textbooks (values noted in the relevant literature and especially in the Turkey context). In this way, it will be revealed how much the values conveyed by distance education match or differ with the values transferred in face-to-face mathematics teaching. In this context, the discussion is presented under two subtitles as mathematical and mathematics educational values.

Mathematical Values

In the current study, it has been determined that there is balanced emphasis on objectism-rationalism mathematical value pair in the lessons. In addition, it was also determined that objectism value is usually transferred with symbolisation value signal and rationalism value is conveyed by using abstraction and logical connectors. In his study, Dede (2006), to determine the conveyed mathematical values in high school mathematics textbooks, has taken the logical connectors as a reference point for rationalism value, showing the action-reaction, cause and effect relationships in mathematical tasks. It was observed that there was more emphasis on openness value compared to its complementary, mystery value. It was observed that there was little emphasis on the control-progress values in the distance education process, and moreover, the control value was brought to the fore more in comparison to the progress value.

On the other hand, the study conducted to determine students' values in face-to-face education revealed that Grade 9 students in Turkey gave more importance to objectism, openness, and progress values than complementary pairs (Dede, 2019). Accordingly, it is understood that the objectism and openness values conveyed in lessons through distance education coincide with the values conveyed to students by face-to-face education, and the rationalism value does not. However, Dede (2019) found in his international comparative study that Turkish, German, and Turkish immigrant students (Grade 9) living in Germany emphasised the value of rationalism. This reveals that teachers and students from different cultures show common approaches to the scientific discipline of mathematics (rationalism) in face-to-face education (see Atweh & Seah, 2008; Zhang et al., 2016, for results of different cultures studies). Additionally, although there is less emphasis on progress in distance education courses, it is seen that students place more emphasis on progress in face-to-face classes. In fact, in his research to determine why mathematics is important, Dede (2012) found that Turkish and German mathematics teachers especially gave importance to rationalism and progress values in face-to-face education. Also, Dede (2012) found that rationalism, control, and openness values among mathematics values were emphasised more in textbooks. In their study, Aktaş and Argün (2018) concluded that high school mathematics teachers reflect the values of objectivism, control, and openness more in face-to-face teaching.

Mathematics Educational Values

In the current study, it has been determined that the values of formalistic view of mathematics learning, inquiry and instrumental understanding are frequently conveyed in the lessons. The fact that formalistic view of mathematics learning value is emphasised

more than its complementary value pair in distance education courses can be considered an indication that teachers tend to teach the concept/subject more directly than the students discover in the distance education process. On the other hand, it is seen that instrumental understanding value is emphasised more than its complementary value pair. Here, it was observed that the teacher tended to convey the instrumental understanding value to the students by reminding them of his previous statements (e.g., firstly let's remember the definition of the triangle together). One reason why instrumental understanding is emphasised more in lessons in the current study may be due to the fact that the teacher emphasised too much on the value of formalistic view of mathematics learning. In addition, in the facts & theories–ideas & practice value pairs, it was observed that the teacher predominantly reflects the value of facts & theories while teaching. In the lessons, transferring ideas &practice values was very rare. However, in the study of Dede and Barkatsas (2019), it was determined that Grade 9 students place more emphasis on ideas & practice value. This situation differs from the values emphasised by the students. If the process–product value pair is examined, it is seen that the teacher usually gives more importance to the process value.

Additionally, it was observed that the teacher also attaches importance to the inquiry value during the course, but the inquiry value remained only an attempt because the teacher could not receive feedback from the students due to the nature of the distance education. However, it was seen that the teacher did not give feedback after the attempt of the inquiry value. This may be because the teacher is aware that he is not interacting with the students, and therefore, he thinks that there is no need to give feedback. It was also observed that the computation value was transferred more from the application–computation value pair in the courses. In addition, it is seen that the transfer of the feedback value is less in the courses. This differs from the results of the study of Dede and Barkatsas (2019) because, in the study of Dede and Barkatsas (2019), Grade 9 students emphasised the feedback value significantly. Feedback value is thought to remain only at the attempt level due to the limitation of distance education as in the inquiry value. To eliminate this negative situation, it is recommended that teaching with distance education should be made in an interactive manner with the support of technology. For example, the teacher can ask questions to students on a live broadcast and students can answer online. The teacher can see the students' answers on a live broadcast screen and coordinate the lesson accordingly. However, if this situation is considered in terms of process–- product value pairs, it can be said that this situation can bring the product value to the front.

Limitations and Further Study

In the current study, distance education was conducted across the country in the form of lectures taught by teachers at each grade level through a central system within the scope of EBA. Also, distance education courses are presented asynchronously. In this regard, these should be considered when interpreting the results of the current study. Therefore, the examination of values in mathematics (geometry) teaching with synchronous distance education can be suggested for further research. In addition, all the courses observed in this study were taught by a male teacher. Even though teachers prepare and get academic support before the lecture process, the gender, individual

characteristics, and pedagogical approaches of this teacher may still have an impact on the results of this study. In this context, further research can be done through the course videos taken by teachers with different characteristics (gender, seniority, etc.). In addition, since the courses followed within the scope of this study are geometry-based (due to the mathematics curriculum of the Grade 9s during the time when the pandemic started and the distance education decision was made), the subject (geometry) may also have a possible impact on the results obtained in this study. Investigation of this situation (different mathematical topics and concepts, e.g., algebra) can also be suggested for further research. In addition, since there is no study in the literature about the values that students attach importance in the distance education process in previous studies, the discussions were made according to the values of the students, teachers in the face-to-face teaching process, and mathematics textbooks. In this way, there has been a chance to reveal the possible similarities and differences of values conveyed by face-to-face and distance education. In this context, it is thought that the results of the present study will provide a sound basis for further studies to examine the values of students (and teachers) in the distance education process and will be useful in the better interpretation of the results of the present study.

Statement of Responsibility

Yüksel Dede, Veysel Akçakın and Gürcan Kaya conceived the idea and designed this study. All authors are responsible for writing and finalizing the paper. During the review process all authors revised the paper and approved the final version.

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Development of Self-Efficacy for Argumentation Scale[*]

Tartışmaya Yönelik Öz-Yeterlik Ölçeğinin Geliştirilmesi

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ABSTRACT: The aim of the study is to develop a "Self-Efficacy Scale for Argumentation" (SEAS). The participants of the study consisted of 879 pre-service elementary teachers. In order to examine construct validity of SEAS, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were utilized. The initial solution of the EFA results revealed that three-factor structure consisting of 24 items called "Effort", "Confidence" and "Determination" for argumentation was obtained. Since the factor-item correlations were not significant for the "Determination" scale (p>.05), the two-factor structure consisting of the "Effort" and "Confidence" for argumentation was validated by the repeated CFA. The accepted fit indices for the repeated CFA results were X^2/sd=2.62; p<.001; RMSEA=.07; S-RMR=.05; NFI=.86; CFI=.91; GFI=.87. The moderate and significant correlation coefficients between the scores of the SEAS with the scale of "Inquiry Learning Skills Perception in Science" (Taşkoyan, 2008) proved the criterion validity of the SEAS. The test-retest reliability of the SEAS was found to be moderate and significant. The internal consistency of SEAS is .93. Finally, a significant difference between the upper and lower groups means that the item discrimination of the SEAS is high.

Keywords: Argumentation, self-efficacy, self-efficacy for argumentation.

ÖZ: Çalışmanın amacı, sınıf öğretmeni adaylarına yönelik "Argümantasyona Yönelik Öz-Yeterlik Ölçeği (AYÖÖ)'nin geliştirilmesidir. Araştırmanın çalışma grubu 879 öğretmen adayı oluşturmuştur. AYÖÖ'nün yapı geçerliği açıklayıcı faktör analizi (AFA) ve doğrulayıcı faktör analizi (DFA) ile incelenmiştir. İlk AFA sonuçlarına göre, 24 maddeden oluşan ve "Çaba", "Güven" ve "Kararlılık" olarak isimlendirilen üç faktörlü bir yapı elde edilmiştir. "Kararlık" faktörü için faktör-madde ilişkilerinin anlamlı olmaması (p>.05) nedeniyle "Çaba" ve "Güven" olarak iki boyutlu yapının doğrulanması için ikinci kez DFA yapılmıştır. İkinci DFA için kabul gören uyum indeksleri X^2/sd=2.62; p<.001; RMSEA=.07; S-RMR=.05; NFI=.86; CFI=.91; GFI=.87. AYÖÖ ile "Sorgulayıcı Öğrenme Becerileri Algısı Ölçeği" (Taşkoyan, 2008) ile edilen orta düzeyde ve anlamlı korelasyon katsayıları, AYÖÖ'nün ölçüt geçerliğini ortaya koymuştur. AYÖÖ'nün test-tekrar test sonuçları, ortalama düzeyde ve anlamlı korelasyon katsayıları olduğunu göstermiştir. AYÖÖ'nün iç tutarlık katsayısı .93 olarak hesaplanmıştır. Son olarak, alt ve üst gruplar arasında anlamlı bir farkın bulunması ölçme aracının madde ayırt ediciliğinin yüksek olduğunu göstermektedir.

Anahtar kelimeler: Bilimsel tartışma, öz-yeterlik, tartışmaya yönelik öz-yeterlik.

Scientific Argumentation

The roots of argument go back as far as Aristotle in Ancient Greek philosophy. Argument, which is grounded in Aristotle's art of rhetoric, is a means used by an individual to reach a conclusion based on the data they have in hand (Billig, 1989; Çelik, 2010; Durhan, 2018; Walton, 2006). Argumentation, however, is a type of discourse by which individuals try to convince each other based on evidence in order to solve a scientific problem (Trend, 2009) since views that differ from one another must exist for an environment of scientific argument to form (van Eemeren et al., 1996). Therefore, Aktamış and Hiğde (2017) defined scientific argument as a type of scientific discourse that consciously includes the components of argument rather than an environment in which individuals present only their views in a simple debate. Throughout this study, the term "scientific argumentation" will be used instead of argumentation. It is seen that besides the concept of scientific argumentation, the concept of argument is also included in the literature, and that these concepts differ from each other. Argument can be understood as a thesis created by the individual to support their idea, whereas scientific argumentation is the name given to the process in which more than one person debates their ideas which are different from each other (Kuhn & Udell, 2003). While argument is expressed as the claims, data, warrants and backing that themselves contribute to its content, scientific argumentation is expressed as the process of combining these components (Simon et al., 2006). Ceylan (2012) stressed that in a scientific argumentation environment, arguments are required for individuals to convince each other reciprocally.

Researchers such as Zohar and Nemet (2002), Kelly and Takao (2002), Schwarz et al. (2003), Lawson (2003), Sandoval (2003), and Erduran et al. (2004) developed different models for analyzing scientific argumentation in science education. However, in many studies conducted in science education in Turkey, it is seen that Toulmin's model is mostly used (e.g., Karakaş & Sarıkaya, 2020; Seçkin Kapucu & Türk, 2019; Tozlu, et al., 2019; Tüzün et al., 2019; Ural et al., 2020). In this study, too, Toulmin's model is used, because in Toulmin's model, since the argument is molded in a certain way, the understanding, analysis and evaluation of the argument are facilitated (van Eemeren et al., 1996). By revealing the mutual relationship between the arguments in a comprehensive way, it is possible for the individual to look critically at the other arguments and at his/her own arguments (Leeman, 1987; Rieke & Sillars, 1984). According to Aldağ (2006), the Toulmin model can assist students with regard to determining the hypotheses that are not clearly defined in the argument. By extension, it contributes to the development of students' argumentation skills (Toulmin, 1958). Rachmatya and Suprapto (2020) also stated that Toulmin's argument model is of benefit for measuring individual's argumentation skills.

Toulmin's model demonstrates the formation of a claim supported by data and the applicability of these data by using warrants (Jolliff, 1998). According to Toulmin (1958), the components of an argument consist of the claim, data, warrant, backing, qualifier and rebuttal. The claim is a view proposed about an idea, opinion or results. The data are facts put forward to support the claim (Çelik, 2010; Von Aufschnaiter et al., 2008). While the evidence-based justification of the claim with the supporting data is enabled with the warrant, the limits of the validity of the argument are defined with the qualifier (Osborne et al., 2004). While data presented to strengthen the warrants of

the claim comprise the backing component, the arguments presenting conditions in which the claim is not true confront us as the rebuttal (Erduran et al., 2004). Stating that opposing arguments directed at the claim can be provided with rebuttals, Kaya and Kılıç (2008) stated that these can cause dialogic discussions to begin, since the rebuttals include both the presentation of evidence and reasoning intended to weaken or destroy the opposing argument (Freeley & Steinberg, 2008). As can be seen, the components of the argument are parts that strengthen the whole and are interdependent like interlocking links. The question of the extent to which the components of scientific argumentation exist or not in the argument determines the power of the argument (Sampson & Clark, 2008).

Scientific Argumentation in Science Education

Since scientific argumentation develops the individual's self-efficacy (Eymur & Çetin, 2017), argumentation skills (İnaltekin & Akçay, 2017; Osborne et al., 2004), academic achievements (Erkol et al., 2017; Koçak, 2014), willingness to debate (Baydaş et al., 2018), scientific process skills (Er & Kırındı, 2020), conceptual understanding (Akyüz, 2018; Hasnunidah et al., 2020), critical thinking (Rosidin et al., 2019; Sönmez, 2017), and attitudes towards science (Walker et al., 2012) occupy an important place in science education. For this reason, scientific argumentation has been included in many reforms in science both in Turkey and all over the world (Erduran & Msimanga, 2014; Heng et al., 2015).

The Ministry of National Education (MoNE, 2018) in Turkey states that the learning process involves the creation of arguments and that discussion environments should be established to enable individuals to state their claims, support them with warrants, and develop counter arguments to refute the other claims. Although students' participation in the scientific argumentation process is important in terms of both their learning of scientific concepts and their better understanding of the scientific argumentation process, it is reported that opportunities for participation in such discussions is limited (Sampson & Blanchard, 2012). In this case, the importance of science teachers' knowledge related to scientific argumentation and the teaching of scientific argumentation comes to the fore (Özdem Yilmaz et al., 2017). Studies conducted in this direction reveal the deficiency of teachers' knowledge related to the components of argumentation or the inadequacy of their teaching skills required to initiate, sustain and complete an argument (Aydoğdu & Buldur, 2013; Hiğde & Aktamış, 2017; Namdar & Tuskan, 2018; Sampson & Blanchard, 2012). Similarly, studies conducted with pre-service teachers are such as to support this finding: there are not only deficiencies in candidates' argument knowledge (Hiğde & Aktamış, 2017), but they also experience problems in classroom management while planning for scientific argumentation and during implementation of scientific argumentation (Aydeniz & Özdilek, 2016). According to Martín-Gámez and Erduran (2018), pre-service teachers have difficulty in understanding the rebuttal component, which increases the quality of an argument. Similarly, Gurkan and Kahraman (2018) revealed in their study that although teacher candidates were able to present claims related to a socio-scientific subject, they had difficulties when supporting their claims or refuting other claims. Furthermore, pre-service teachers who participated in the study by Ghebru and Ogunniyi (2017) regarded scientific argumentation only as offering an opinion or as a

discussion undertaken by individuals in order to get the better of each other regarding a situation.

The abovementioned studies make one wonder how pre-service teachers can structure scientific argumentation in their educational practices. Drawing attention to the relationship between pre-service teachers' self-efficacy and scientific argumentation, Ogan-Bekiroglu and Aydeniz (2013) stated that candidates with high self-efficacy for scientific argumentation could carry out instruction in this direction, whereas candidates with low self-efficacy could use only teacher-centered teaching methods such as direct instruction. This situation reveals that besides environmental factors that can affect pre-service teachers' knowledge and skills related to scientific argumentation, such as the class environment and accessibility of resources, individual characteristics such as self-efficacy, which ensure that they tend not to give up in the face of obstacles and to be successful, also need to be taken into consideration (Purzer, 2011). In the following sections, first of all self-efficacy, and then the relationships between self-efficacy and scientific argumentation are explained.

Self-Efficacy

Bandura, who argued that self-efficacy forms the basis of human actions, defined self-efficacy as an individual's belief in their competencies to organize and maintain their actions. Self-efficacy belief determines how people feel and think, how they motivate themselves, and how they behave. According to Bandura, when people believe that they cannot achieve the desired result, there is nothing to motivate them towards action (Bandura, 1977, 1994, 2001).

Self-efficacy belief focuses on the ability to carry out a certain task successfully and is assumed to be a powerful predictor of behavior (Woolfolk, 2016). While self-efficacy affects an individual's goals and behaviors, it is also affected by actions and conditions in the environment; that is, self-efficacy has an effect on people's behaviors and the environments they interact with, and is also itself affected by actions and conditions in those environments. Consequently, behaviors and environments complement each other reciprocally (Schunk & Meece, 2006; Schunk & Miller, 2002).

Individuals' beliefs in their ability inform us about how they interpret the opportunities and difficulties around them. It is associated with which problems they will tackle, how much they will strive for their goals, how patient they can be in the face of difficulties, and whether failure situations will be demoralizing or motivating for them (Bandura, 2002, 2006). For example, people who feel competent to carry out a certain task are more willing to take part in activities and to work harder, and are more determined to find a solution when faced with difficulties (Schunk & Miller, 2002). As well as affecting the amount of effort individuals will spend and the extent to which they will be able to withstand difficult conditions, self-efficacy also has an effect on whether they will be able to deal will these difficulties (Poulou, 2003). Bandura (1986, 1997) explained the sources of self-efficacy in four parts, namely individuals' own performance accomplishments, vicarious experiences, verbal persuasion and physiological states. According to Bandura (1977), individuals' own performance accomplishments are the most important source that forms their self-efficacy belief. While performances that individuals interpret as successful increase their self-efficacy, results that are perceived as failures decrease their self-efficacy (Chen & Yeung, 2015).

By means of indirect experiences, individuals also make inferences about their abilities by observing their peers. When students who observe their peers see that they can perform a task, they show a tendency to believe that they will also be able to do it themselves (Schunk & Miller, 2002). Verbal persuasion is concerned with feedback from other people regarding individuals' ability to accomplish a task. When individuals receive positive feedback, their self-efficacy is supported, whereas negative feedback can lower their self-efficacy (Bandura, 1977; Chen & Yeung, 2015). As well as these, individuals may also consider their emotional and physiological states while evaluating their self-efficacy. Drawing attention to the fact that individuals' performances can be interpreted as weak in stressful situations, Bandura (1994) mentioned that they might name aches and pains as physical weakness in activities that involve strength and resistance.

Self-Efficacy for Argumentation

In argumentation, individuals challenge each other with claims and the reasons for these claims. Argumentative environments are complex environments that involve cognitive conflicts, doubts, complex decisions, etc. While individuals form their claims, they also create counter-claims by thinking about other individuals' ideas (Mirza & Perret-Clermont, 2012). For this reason, rather than accepting a viewpoint without considering it (van Eemeren et al., 2014), scientific argumentation requires individuals to ground their claims, make statements related to counter-claims, evaluate alternative ideas, and reconstitute their own ideas (Chin & Osborne, 2010). This situation causes individuals to make a decision about whether or not to use their argumentation skills by bringing their self-efficacy belief to light (Erika et al., 2019). Therefore, learning environments that are based on scientific argumentation, while increasing individuals' interest in science by allowing them to investigate and solve a problem that they have identified, give them the opportunity to feel competent by allowing them to take responsibility for their own learning (Choi et al., 2015).

In argumentation activities, individuals can gain experience in forming arguments in cooperation, producing evidence, evaluating alternative arguments, and projecting the results of their arguments (Simon et al., 2012). As well as examining pre-service teachers' practice activities, Çetin et al. (2016) also stressed the importance of determining their self-efficacy beliefs. The model applied by Erika et al. (2018) for developing pre-service chemistry teachers' self-efficacy and argumentation skills improved both the candidates' argument-forming skills and their self-efficacy. Again, it was observed that self-efficacy developed in pre-service teachers who did experiments related to science subjects during laboratory practices based on scientific argumentation (Karslı Baydere & Şahin Çakır, 2019). Voica et al. (2020) reported that in an environment based on problem-solving, pre-service teachers' perceived self-efficacy triggered motivation to persevere, and that when the candidates took on a new task, their self-efficacy increased and their self-confidence improved.

Individuals who do not possess cognitive and social skills related to initiating, sustaining and evaluating an argument may experience a feeling of difficulty in an argumentation environment. In such situations, which they generally perceive as a risk for themselves, individuals may avoid entering such environments in order to cope with the feeling of failure that they will experience (Mirza & Perret-Clermont, 2012). Pre-

service teachers' previous teacher-centered learning experiences in their university education may lead them to feel inadequate at coping with the problems that scientific argumentation will bring them. Thus, they refrain from scientific argumentation practices. For example, Hewson and Ogunniyi (2011) stated that although the instructor provided candidates with certain experiences for them to use scientific argumentation as a means of instruction, there would be a need for in-service training for candidates to use this new approach, which they regarded as radical for themselves, in their classes. Therefore, individuals' belief that they can use these skills to make their argumentation skills ready for use must be sufficient (Erika & Prahani, 2017).

Furthermore, when rebuttals of an argument occupy a great deal of space during argumentation, this means that the disputed ideas are investigated more. In this situation, so that individuals who argue can protect their positions in a powerful way, their self-efficacy beliefs in their argumentation skills need to be strong (Garcia-Mila et al., 2013). If individuals think the opposite, that is, if they believe that they cannot succeed in a task or activity, they may not wish to take action in the face of difficulties (Bandura, 1999). Considering that actions are first considered at the anticipation stage, individuals' self-efficacy belief will also affect their knowledge and skills related to argumentation (Bandura, 1994). Uçar and Demiraslan Çevik (2020) reported that since pre-service teachers who participated in their study did not trust themselves in terms of their argumentation skills, the feedback that they gave each other regarding the argumentation map that was developed was not effective in developing their argumentation skills. For this reason, to make teacher candidates' understanding, knowledge and skills related to argumentation more comprehensible, it is also necessary to examine candidates' self-efficacy for argumentation.

When the literature is examined, in terms of measuring self-efficacy in the field of science, a number of examples can be found, such as a science teaching self-efficacy belief scale, an environmental education self-efficacy scale (Özlü et al., 2013), a self-efficacy scale for laboratory practices in science teaching (Aka, 2016), a self-efficacy belief scale related to knowledge and instruction of the nature of science (Tatar & Özenoğlu, 2018), and a laboratory self-efficacy scale (Akkuş, 2020). Moreover, there are also studies related to developing pre-service teachers' competences for science (Kazempour & Sadler, 2015; Knaggs & Sondergeld, 2015; Menon & Sadler, 2016), teaching science (Hechter, 2011; Mulholland & Wallace, 2001; Narayan & Lamp, 2010; Palmer, 2006; Ramey-Gassert & Shroyer, 1992; Velthuis et al., 2014) and the factors affecting the argumentation instruction (Atabey et al., 2020). Furthermore, it is determined that scientific argumentation studies conducted with pre-service teachers focus on teacher competency (Aydeniz & Özdilek, 2016; Ecevit & Kaptan, 2019; Ogan-Bekiroglu & Aydeniz, 2013), competency for the subject of science (Öztürk, 2013), or on determining perceptions related to scientific argumentation (Lytzerinou & Iordano, 2020; Sadler, 2006) and attitude for discussion ability (Ocak & Karakuş, 2015). In summary, although the effects of argument-based learning environments on pre-service teachers have been studied, it seems that it is not possible to determine how pre-service teachers' self-efficacy for argumentation changes. Based on this, the aim of this study is to develop a "Self-Efficacy for Argumentation Scale" (SEAS) for pre-service teachers. The SEAS that is developed is of importance for a more extensive evaluation of

scientific arguments. Moreover, the SEAS is important because it is original in combining scientific argumentation and self-efficacy included in the literature.

Method

Study Group

The study group consisted of 1st, 2nd, 3rd and 4th grade pre-service elementary teachers attending two public universities located in the Aegean Region in the spring semester of the 2018-2019 academic year (Table 1). The sample of the study consists of 858 pre-service teachers (or teacher candidates) studying in the first, second, third and fourth classes of the Primary Education Department of Aydın Adnan Menderes University, Dokuz Eylül University, Muğla Sıtkı Koçman University, Pamukkale University and Afyon Kocatepe University. Convenience sampling is a method in which the researcher selects the participants herself/himself (Fraenkel et al., 2011). It can also be defined as choosing the sample from easily and accessible units that can be applied (Büyüköztürk, 2012). In the study, the sample was limited to the specified universities by considering the distance and time variables between the universities in the region and the city of Aydın. After the necessary permission for the research had been obtained, the scale was given to the pre-service elementary teachers specified in Table 1.

Table 1

Distribution of Study Group by Stages

Stage of Study	Participants
Pilot study stage	80
Exploratory factor analysis	206
Confirmatory factor analysis	307
Criterion validity	216
Test-retest	70
Total	879

Creation of Item Pool

The theoretical framework of the SEAS was developed by considering Toulmin's (1958) scientific argumentation model and the feeling competent, endeavor and determination subdimensions of self-efficacy (Pajares, 1997). According to Toulmin, while the basic components of scientific argumentation consist of the claim, data and warrant, when the arguments become more complex, the backing, qualifier and rebuttal components are also included in the process. Bandura (1994, 1997), who argued that individuals shape their actions according to their self-efficacy, stated that self-efficacy is effective in individuals' endeavors and their ability to continue their actions in a determined way. Therefore, the scale items were written according to the endeavor, feeling competent and determination subdimensions of self-efficacy, and were organized according to the components of argumentation (Fig. 1).

While the items were being created, care was taken to ensure that they were clear and understandable, and that one item did not include more than one judgment (Karakoç & Dönmez, 2014). Since self-efficacy is concerned with an individual's belief

in their competence to carry out an action, Bandura (2006) stated that it would be inappropriate for items related to self-efficacy to be negatively biased.

Figure 1

The Path Followed while Creating Item Pool
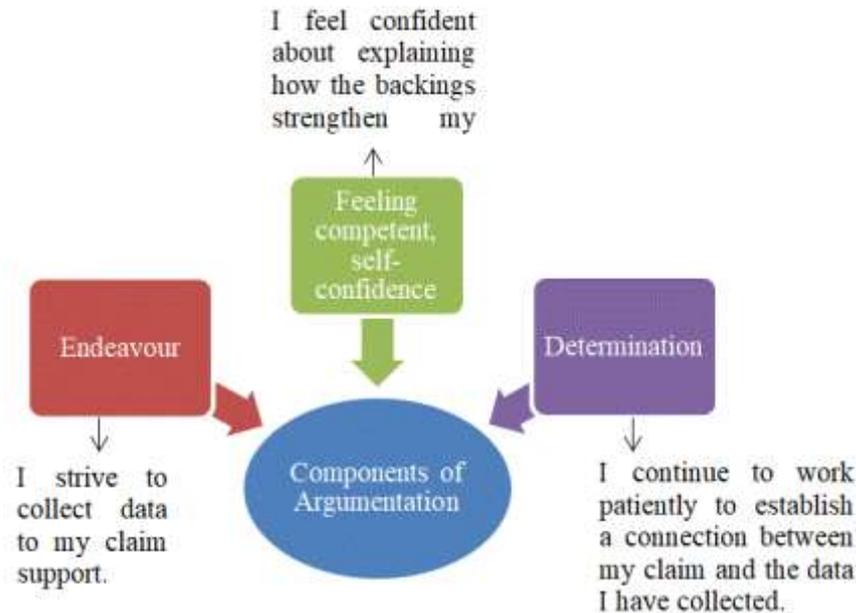
For this reason, writing negative items was avoided. While the components of scientific argumentation and the subdimensions of self-efficacy were being combined, each component of scientific argumentation was combined with the subdimensions of self-efficacy. While writing the items for the claim component, items show that in a learning environment where this component is found, an individual feels competent, makes an effort, and shows determination while using this component. By taking all of these into account, 91 items were included in the created item pool. The scale items were prepared in such a way that candidates would respond according to a 5-point Likert-type scale, and are scored as "Strongly agree" (1), "Agree" (2), "Undecided" (3), "Agree" (4), and "Strongly agree" (5).

Pilot Study Stage

To check the comprehensibility of the 91-item scale, a pilot study was conducted with students in Classroom Teaching at the Elementary Education Department of Adnan Menderes University. For the pilot study of the SEAS, the 91-item scale was administered to 80 pre-service teachers. The teacher candidates were given 25 minutes for the implementation. During the implementations, the researcher stressed the difference between scientific argumentation and argument to the candidates, and after this explanation, the candidates responded to the items. The feedback that came from the candidates revealed that the items were understandable and that no problems had been experienced during the implementation of the scale.

Data Analysis

Studies related to the validity of the developed scale were evaluated by using content validity, construct validity and criterion validity. For content validity, the views

of 5 experts in the field of science education were obtained, while for construct validity, "Exploratory Factor Analysis" was performed. In order to check the constructs that emerged with the exploratory factor analysis of the scale, "Confirmatory Factor Analysis" was performed. Criterion validity was enabled by using the "Perception Scale for Inquiry Learning Skills" developed by Taşkoyan (2008).

The calculations for the reliability studies were made by examining the "Test-Retest Method", the "Cronbach Alpha Internal Consistency Coefficient", and the "Item Discrimination" characteristic. For analysis of the items, the upper 27%-lower 27% group method was utilized. The data were analyzed using the SPSS 18.0 and Lisrel 8.80 software programs. The data related to the validity and reliability of the "SEAS" that was developed for the study are included in the findings section.

Ethical Procedures

Ethical approval and written permission were obtained from the Educational Research Ethics Committee; Adnan Menderes University (dated 29.01.2019 and numbered 2019-02).

Results

Findings Related to Content Validity

For content validity, to examine the candidate items created in terms of content, meaning and orthography, an "Expert Evaluation Form" was prepared and sent to five faculty members in the field of science education. The researchers were asked to make statements on the form as to the appropriateness or inappropriateness of the items and to add their views or suggestions. Following the evaluation, the number of items was reduced from 91 to 73 due to more than one item measuring the same characteristic or the inappropriateness of items for the targeted content on the scale. Again, in line with the expert views, items including more than one judgment statement for a single item, and items containing words that created ambiguity in a sentence or having an inverted structure in terms of meaning were amended. As a result, the scale's construct validity, which was given its final form with 73 items, was ready to be tested.

Findings Related to Construct Validity

Construct validity can be defined as evidence that a measurement tool has measured the construct that it is intended to measure (Brown, 2000). One of the methods most frequently used to test construct validity is factor analysis (Büyüköztürk et al., 2016).

Exploratory Factor Analysis

To perform the exploratory factor analysis of the SEAS, the 73-item scale was administered to 206 pre-service elementary teachers studying at Adnan Menderes University. It was seen that the scale data exhibited normal distribution (Skewness=.173, Kurtosis=.024). To check the suitability of the data for factor analysis, the results of the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett sphericity tests were examined (Leech et al., 2005). By finding a KMO value of .94 for the group with whom the scale was implemented, it was determined that the sample size was adequate (Liu et al., 2021). By finding a Bartlett test result of .000, it was seen that the required

value had been achieved (Can, 2016; Leech et al., 2005). In the principal components analysis that was conducted to determine the factor structure of the scale, it was seen that a 15-factor structure appeared (Fig. 2).

Figure 2

Scree Plot Graph of SEAS with 15-Factor Structure
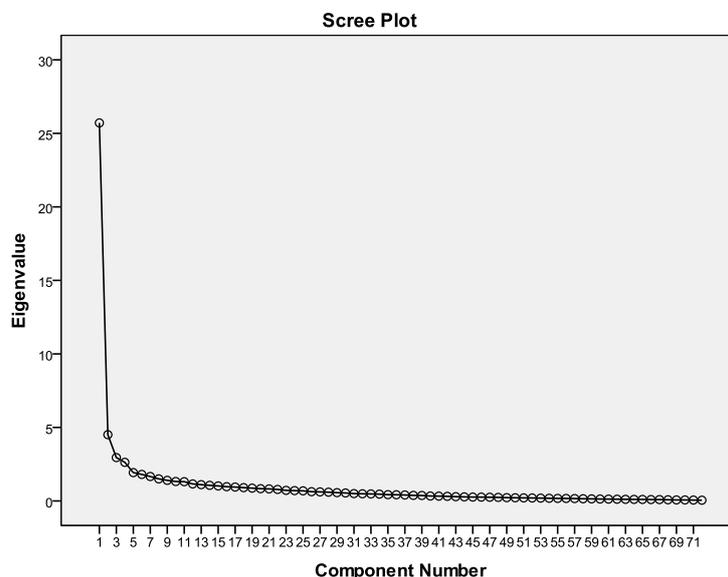
According to Fig. 2, these factors explain 72.795% of the variance. Varimax rotation was performed on the 15-factor structure created, and items with values below .45 and items having a difference of less than .10 between factor loadings loaded on more than one factor were removed from the scale (Büyüköztürk, 2018). As a result, 49 items that did not conform to the criteria were removed from the scale. Consequently, a three-factor structure consisting of 24 items was obtained, and since items forming the first factor gathered items in the form of "I endeavour" and "I strive", it was considered appropriate to name this item *effort for argumentation*; since the second factor gathered items in the form of "I feel competent" and "I am confident", it was considered suitable to name this item *confidence for argumentation*; and since the third factor gathered items in the form of "I carry on working" or "I do not give up", it was considered appropriate to name this item *determination for argumentation*.

Confirmatory Factor Analysis

Following the exploratory factor analysis, confirmatory factor analysis was performed for the 24-item scale in order to test the model that was created. To test the three-factor structure of the developed scale, the confirmatory factor analysis was carried out with data obtained from pre-service science teachers studying at Adnan Menderes University and 307 pre-service classroom teachers studying at Muğla Sıtkı Koçman University. The analysis results for these data were calculated as x^2/sd=1.97 RMSEA=.068, GFI=.84, CFI=.97, IFI=.97, NFI=.94, RMR=.036, SRMR=.063, and NNFI=.97. In addition, the correlation coefficients between the factors were examined, and the correlation between the scores obtained from the effort for argumentation and confidence for argumentation factors was determined to be .60 and significant (p<.001).

However, the correlation between the scores obtained from the determination for argumentation factor and the scores obtained from the effort for argumentation and confidence for argumentation factors was calculated.10. When the factor-item correlations are examined, the factor-item correlations for all items included in the effort for argumentation and confidence for argumentation factors were significant at a level of .05, while these correlations were not significant for the determination for argumentation factor (*p*>.05). As a result, it was concluded that the three-factor structure obtained was not valid, and the three items belonging to the determination for argumentation factor were removed from the scale. To test the validity of the two-factor structure consisting of the effort for argumentation and confidence for argumentation factors, confirmatory factor analysis was again performed on the data obtained from 216 pre-service elementary science teachers attending Adnan Menderes University. The goodness-of-fit values obtained from the repeated confirmatory factor analysis are reported in Table 2.

Table 2

Results of Confirmatory Factor Analysis of Two-Factor Structure

Evaluation Criteria	Results
X^2/sd	2.62
RMSEA	.07
CFI	.91
RMR	.01
SRMR	.05
NFI	.86
IFI	.91
NNFI	.90
GFI	.87

Examination of Table 2 shows that by determining the X^2/sd value as below 3, the RMSEA value as .07, and the RMR and SRMR values as .05 and below, a good level of fit was obtained. Moreover, the fact that the NFI, NNFI, IFI, CFI and GFI values were determined to be very close to .90 or above .90 indicates that a good degree of fit was achieved (Bentler & Bonnet, 1980; Browne & Cudeck, 1989; Byrne, 1998; Hu & Bentler, 1999; Schumacker & Lomax, 2004). Fig. 3 shows the path diagram for the confirmatory factor analysis of the SEAS.

Figure 3

Path Diagram for Confirmatory Factor Analysis of SEAS
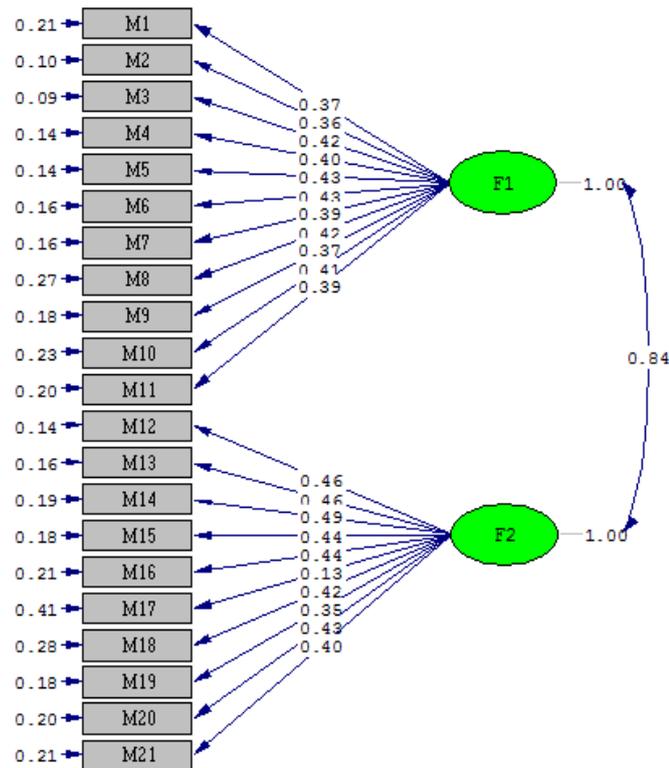
Note: (F1: Effort for argumentation; F2: Confidence for argumentation)

Item Loading Values of Factors

The factor named effort for argumentation consists of 11 items. The factor loadings of the items included in this factor range between .610 and .844. This factor explains 31.076% of the variance with an eigenvalue of 6.526. The factor named confidence for argumentation consists of 10 items. The factor loadings of the items included in this factor range between .650 and .790 (Table 3). This factor explains 27.438% of the variance with an eigenvalue of 5.762. The final version of the scale consisting of 21 items explains 58.51% of the variance.

Table 3

Item Loading Values of SEAS

Items	Confidence for Argumentation	Effort for Argumentation
I 60	.790	
I 58	.769	
I 33	.736	
I 27	.734	
I 42	.731	
I 2	.702	
I 38	.681	

I 28	.667	
I 22	.655	
I 8	.650	
I 13		.844
I 14		.839
I 15		.826
I 12		.815
I 17		.766
I 18		.732
I 31		.723
I 4		.657
I 29		.632
I 34		.612
I 24		.610

Findings Related to Criterion Validity

For the criterion validity of the scale, the "Perception Scale for Inquiry Learning Skills" developed by Taşkoyan (2008) was used. To determine whether the SEAS had criterion validity, the 21-item scale was administered to 216 pre-service science teachers attending the Science Teaching Department of Adnan Menderes University Education Faculty. The relationship between the scores obtained by the candidates from the Perception Scale for Inquiry Learning Skills and the scores they obtained from the effort and confidence factors of the SEAS was examined with the Pearson product moment correlation coefficient. The results obtained are presented in Table 4.

Table 4

Correlation of SEAS with Perception Scale for Inquiry Learning Skills

Factors	Perceptions of Inquiry Learning Skills
Effort for argumentation	.66
Confidence for argumentation	.61
General Scale	.66

*p<.001

According to Table 4, the correlation coefficients obtained are moderate and significant (Köklü et al., 2007). This shows that the validity of the SEAS conformed with the tested criterion.

Findings Related to Test-Retest Method

For the reliability study of the scale, the test-retest method was used. The scores obtained with this method show how consistent they are (Table 5, Büyüköztürk et al.,

2016). The test-retest was implemented with a different study group. 70 pre-service classroom teachers attending Adnan Menderes University were required to voluntarily use assigned names, and one month after the first implementation was made, the test was implemented for a second time with the same group. During the second implementation, some pre-service teachers either forgot their assigned names or did not participate in the second implementation. Therefore, by excluding 16 teacher candidates from the study, the data of the remaining 54 pre-service teachers were analyzed with the Pearson's correlation coefficient.

Table 5

Test-Retest Results for SEAS

Subdimensions	N	R
Effort for argumentation	54	.704**
Confidence for argumentation	54	.662**
General mean	54	.696*

** p<.001, *p<.05

Findings Related to Cronbach Alpha Reliability Coefficient

One of the reliability studies of the scale was made by calculating the Cronbach alpha reliability coefficient. This method is used to test the reliability of test scores, and is especially used in cases where responses are obtained from a rating scale. It shows the extent to which the test items are consistent with the general measurement (Büyüköztürk et al., 2016). Karakoç and Dönmez (2014) and Fraenkel et al. (2011) stated that the calculated coefficient should be at least .70 of the general acceptance. According to George and Mallery (2016), the closer the alpha is to 1, the higher the internal consistency of the scale. While a Cronbach alpha reliability coefficient of .93 was found for the general scale, the reliability coefficients of the effort for argumentation and confidence for argumentation factors were determined to be .92 and .91, respectively (Table 6). The obtained values indicate that the reliability coefficients of the general scale and its subdimensions are "excellent" according to George and Mallery (2016).

Table 6

Cronbach Alpha Reliability Coefficient for the Scale

Subdimensions	Number of Items	Cronbach's Alpha
Effort for argumentation	11	.92
Confidence for argumentation	10	.91
General scale	21	.93

Findings Related to Item Discrimination

To determine the item discrimination strength of the scale, the lower 27% and upper 27% groups formed according to the total scores of the test were determined. Then, to reveal whether the difference between the mean scores of the lower 27% group

(*n*=56) and the upper 27% group (*n*=56) was significant, independent groups t-test was performed. The p value of Levene's test, which checks the equality of the group variances, was found to be .582. Therefore, since *p*>0.05, the variances were accepted as equal. As a result of the t-test that was performed between the lower and upper 27% groups, a statistically significant difference was determined between them ($t_{(110)=}$ 23.29, *p*<.001). A significant difference found between lower and upper groups indicates that the item discrimination of the measurement tool is high.

Furthermore, to determine the extent to which the discrimination of each item in the scale was adequate in terms of the characteristic that it measured, t-test for independent groups was performed in the lower and upper 27% groups for each item. The results are shown in Table 7.

Table 7

Independent T-test Results between Item-Total Correlations of Factors of SEAS and Lower 27% - Upper 27% Scores

Subdimensions	Item No.	Item-Total (Upper 27% Lower 27%) Correlation	*t*-Value for Items
Effort for argumentation	2	.734	2.226*
	5	.674	1.936*
	6	.688	1.803*
	8	.634	2.755*
	12	.541	2.653*
	14	.607	4.536**
	16	.664	3.601**
	17	.684	3.423*
	18	.632	2.602*
	19	.616	3.200*
	21	.663	2.157*
Confidence for argumentation	1	.497	3.824**
	3	.565	4.490**
	4	.601	4.737**
	7	.568	2.901*
	9	.696	5.626**
	10	.578	1.777*
	11	.632	2.941*
	13	.693	4.430**
	15	.650	3.710**
	20	.632	2.956*

*p<.05, **p<.001

As a result of the analysis, significant differences were found between the upper 27% and lower 27% groups for all items (*p*<.05, *p*<.001). Accordingly, it can be said that every item in the scale is discriminatory in measuring the characteristic that is desired to be measured.

Discussion and Conclusion

In this study, a validity and reliability study of the Self-Efficacy for Argumentation Scale for pre-service classroom teachers has been made. Studies examining the self-efficacy of pre-service teachers in argumentation environments within the scope of socio-scientific subjects determine candidates' self-efficacy for arguments requiring knowledge in a certain field (Çetin et al., 2014; Iordanou & Constantinou, 2014). However, since the SEAS developed in this study can measure pre-service classroom teachers' self-efficacy independently of their field knowledge, it is suitable for use by researchers in both experimental and survey-type argumentation-related studies in which different field knowledge is included. On the other hand, since studies conducted to improve pre-service teachers' self-efficacy for argumentation (Ogan-Bekiroglu & Aydeniz, 2013; Özdem et al., 2013) deal with argumentation as a teaching skill, it is not directly known how the candidates' self-efficacy for argumentation changes. For this very reason, it is considered that the SEAS will contribute to the literature, since it aims to measure pre-service teachers' self-efficacy for argumentation with regard to their effort and confidence.

To ensure the validity of the scale, content validity and construct validity were tested. While content validity was enabled with five faculty members who were experts in the field, exploratory and confirmatory factor analysis were used for construct validity. While the results of the exploratory factor analysis revealed a three-factor structure, namely effort for argumentation, confidence for argumentation and determination for argumentation, the results of the confirmatory factor analysis revealed a two-factor structure in the form of effort for argumentation and confidence for argumentation. Moreover, for the scale validity, correlation between two scales was calculated using the Perception Scale for Inquiry Learning Skills (Taşkoyan, 2008). While the correlation of the effort for argumentation factor with the Perception Scale for Inquiry Learning Skills was .66, the correlation of the confidence for argumentation factor with the scale was .61. It was determined that the .66 correlation between the SEAS and the Perception Scale for Inquiry Learning Skills was moderate and significant (Köklü et al., 2007). For the reliability analyses of the scale, the test-retest method was applied. Accordingly, by observing that the correlation coefficients based on the general scale and its subdimensions were moderate and significant, it was determined that the scale has a consistent structure. Cronbach alpha internal consistency coefficients were calculated as .93 for the general scale, .92 for effort for argumentation, and .91 for confidence for argumentation, respectively, and consequently, it was determined that the internal consistency is very high (George & Mallery, 2016). Furthermore, by determining that there was a significant difference between the lower 27% group and upper 27% group, it was seen that the item discrimination of the measurement tool was high. The lowest and highest scores that can be obtained from the scale are 21 and 105, respectively. It takes approximately 10 minutes to respond to the scale.

While Pajares (1997) noted that feeling competent, making an effort and showing determination are dimensions of self-efficacy, Bandura (1994, 1997) stated that individuals shape their actions according to their self-efficacy and that their self-efficacy is effective for their endeavours and continuing their actions in a determined way. Taking this framework into consideration, the effort and confidence subdimensions of the SEAS conforms to the constructs put forward for explaining self-efficacy. However, since the scale does not include a determination factor for self-efficacy, researchers may feel the need to collect additional data when applying it. In this way, it will be possible to ascertain how determined candidates are to overcome difficulties they encounter in learning environments or how sustainable their desire to learn is. Together with this limitation, considering that in the literature, argumentation and self-efficacy are each discussed as separate study topics in both experimental and survey-type studies, it is recommended that researchers who wish to deal with the two study topics together use the SEAS. The final version of the scale is presented in Appendix 1.

Implications

If pre-service teachers' self-efficacy is considered as individual characteristics, these characteristics are also related to behavior and the environment. Therefore, apart from individuals' perceptions, what they know about argumentation can be determined with data obtained directly from argumentation-based learning environments, since the presence or absence of argumentation-based instruction in the classroom environment in which an individual is found can affect that individual's level of knowledge and therefore, his/her self-efficacy. For this reason, it is considered necessary also to investigate how pre-service teachers perceive the classroom environment for argumentation and what kind of environment they are actually involved in.

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Statement of Responsibility

All authors have participated sufficiently in the work to take public responsibility for the content, including participation in the concept, design, analysis, writing, or revision of the manuscript. Furthermore, each author certifies that this manuscript has not been and will not be submitted to or published in any other publication before its appearance in the Journal of Theoretical Science.

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Appendix 1:

Tartışmaya Yönelik Öz-yeterlik Ölçeği	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
1. Elimdeki verileri kullanarak iddia oluşturmada kendimi yeterli hissederim.					
2. İddiamı desteklemek için veri toplamaya gayret ederim.					
3. İddiama uygun bir araştırmayı tasarlamada kendime güvenirim.					
4. Farklı destekleyiciler arasından iddiama en uygun olanı seçmede kendime güvenirim.					
5. İddiamı destekleyen en uygun veriyi bulmaya gayret ederim.					
6. Topladığım verilerden iddiam ile ilgili çıkarımlar yapmaya gayret ederim.					
7. Önceki bilgilerimden çıkarımlar yaparak yeni bilgiler oluşturmada kendime güvenirim.					
8. İddiama kanıt oluşturmak için topladığım veriler arasında karşılaştırma yapmaya gayret ederim.					
9. İddiama yönelik oluşturduğum kanıtları iyileştirme konusunda kendime güvenirim.					
10. Önceki bilgilerimden çıkarımlar yaparak iddiam üzerine düşünmeye gayret ederim.					
11. Destekleyicilerin iddiamı nasıl güçlendirdiğini açıklamada kendime güvenirim.					
12. İddia oluşturmak için kuvvetli veriler toplamaya gayret ederim.					
13. İddiamı bilimsel gerçeklerle karşılaştırma konusunda kendime güvenirim.					
14. İddiam ile topladığım veriler arasında bağlantı kurmak için sabırla çalışmaya devam ederim.					
15. Topladığım veriler ile iddiamı ilişkilendirebilme konusunda kendime güvenirim.					
16. Tartışmada öne sürülen iddiaların kabul edilebilir olup olmadığını anlamaya gayret ederim.					
17. İddiamı uygun verilerle desteklemek için mücadele ederim.					
18. İddiama yönelik oluşturduğum kanıtlar yetersiz gelirse, iyileştirmek için çaba gösteririm.					
19. İddiamı oluşturmak için bilimsel kaynaklardan veri toplamaya gayret ederim.					
20. İddiamın doğruluğunu savunmak için kendime güvenirim.					
21. İddiama kanıt oluşturmak için veri toplamaya gayret ederim.					

Determining the Training Needs of Teachers in Ethical Use of Information Technologies[*]

Bilişim Teknolojilerinin Etik Kullanımına İlişkin Öğretmenlerin Eğitim İhtiyaçlarının Belirlenmesi

Emre BAYSAN[**]   **Şaban ÇETİN**[***]

ABSTRACT: In this study, the training needs of teachers regarding the ethical use of information technologies were examined. The training needs levels of teachers and the significant differentiations of training needs according to gender, teaching level, professional seniority, branch, and education degree were investigated. In this study, the discrepancy view approach and normative need type were used. The data were collected via "The Scale of Ethical Use of Information Technologies in Education" developed by Baysan and Çetin (2019). The survey method was applied. The research was carried out with 745 teachers working in public schools in Afyonkarahisar, Turkey. The sample group was determined by stratification method and simple random sampling method. Schools were stratified as primary school, secondary school, divinity secondary school and high school. A certain number of schools from each stratum were determined by lot, and it was aimed to reach all teachers in the specified schools. More than half of the participants were female with a rate of 55.5%. Data were collected from teachers working in five different main branches. According to the results, 22.8% of teachers need ethical training in the Stalking sub-dimension, 14.5% in the Communication sub-dimension, and 9.4% in the Confidence and Material sub-dimension. In the Privacy and Accessibility sub-dimensions, nearly 1% of teachers need ethical training. Regarding the ethical use of information technologies, there were significant differences in some sub-dimensions according to some independent variables. Results show that teachers need less ethical training than expected.

Keywords: Ethics, Information Technologies (IT), Teacher.

ÖZ: Bu çalışmada öğretmenlerin bilişim teknolojilerinin etik kullanımına ilişkin eğitim ihtiyaçlarının belirlenmesi amaçlanmıştır. Bu amaç çerçevesinde öğretmenlerin bilişim teknolojilerinin etik kullanımına ilişkin eğitim ihtiyaçları düzeyleri ve eğitim ihtiyaçlarının cinsiyet, öğretim kademesi, kıdem, branş ve eğitim düzeylerine göre farklılaşması durumu araştırılmıştır. Çalışma kapsamında farklar yaklaşımı ve normatif ihtiyaç türü kullanılmıştır. Araştırmada betimsel araştırmalardan tarama modeli tercih edilmiştir. Veriler, Baysan ve Çetin (2019) tarafından geliştirilen "Eğitimde Bilişim Teknolojilerinin Etik Kullanımı Ölçeği" ile toplanmış, elde edilen veriler istatistik yazılımları aracılığıyla analiz edilmiştir. Araştırma Afyonkarahisar il merkezinde devlet okullarında görev yapan 745 öğretmen ile gerçekleştirilmiştir. Örneklem grubu tabakalama ve basit tesadüfi yöntemle belirlenmiştir. Okullar ilkokul, ortaokul, imam hatip ortaokulu ve lise olmak üzere tabakalanmıştır. Her bir tabakadan kura ile belirlenen okullardaki tüm öğretmenlere ulaşılması hedeflenmiştir. Katılımcıların yarıdan fazlası % 55.5 oran ile kadın öğretmenlerden oluşmaktadır. Beş ana branşta görev yapan öğretmenlerden veriler toplanmıştır. Analiz sonuçlarına göre öğretmenlerin % 22.8'i Habersiz Takip, % 14.5'i İletişim, % 9.4'ü Güven ve Materyal alt boyutlarında etik eğitime ihtiyaç duyduğu söylenebilir. Gizlilik ve Erişebilirlik ismi verilen alt boyutlarda eğitim ihtiyacı öğretmenlerin yaklaşık % 1'lik bir kısmına gerekmektedir. Bilişim teknolojilerinin etik kullanımı konusunda öğretmenlerin bazı bağımsız değişkenlere göre alt boyutlarda anlamlı farklılıkları olduğu tespit edilmiştir. Sonuçlar, öğretmenlerin beklenenden daha az etik eğitime ihtiyaç duyduğunu göstermektedir.

Anahtar kelimeler: Etik, Bilişim Teknolojileri (BT), Öğretmen.

Today, with the development of electronic devices and the spread of the internet, it is observed that information and communication technologies offer new opportunities to people as never before. It is useful to use the technology in educational environments in terms of reducing learning time, providing simultaneous, asynchronous, online and offline environments, providing distance learning opportunities and individualized educational materials, branching subjects according to needs, and providing opportunities for disabled students (Çiftçi, 2009, p. 20). Furthermore, technology usage in the classroom contributes to positive attitudes towards learning, collaborative learning behaviors, acquisition of new learning methods, and communication skills (Kozma, 2003).

The use of technology in the classroom also raises ethical issues. Teachers are in a unique position to show students how to use technology correctly. Teachers should teach students the possible dangers of not obeying ethical rules while using the internet and guide them in using the internet at an age-appropriate level. Teachers are expected to be role models for students in terms of the ethical use of technology because students learn from examples (Akcay, 2008).

Students' digital literacy has become as important as reading and writing. Putting ethical values into practice is now among the characteristics of the new generation (Moffat, 2013). The Turkish Ministry of National Education (MoNE) also published current curriculums on the official website. There is a unit titled "Ethics and Safety" in the Information Technologies and Software course taught in primary and secondary schools (MoNE, 2018a). The subject of Ethics, Security, and Society is included in the curriculum of the Computer Science course in secondary education (MoNE, 2018b). The Council of Higher Education (CoHE) has recommended "Ethics and Morals in Education" course to all departments in Teacher Training Undergraduate Programs (CoHE, 2018). The ethical use of information technologies is important not only for teachers who teach this course but also for teachers in other branches who communicate and interact with students. Information ethics is not only a subject to be taught to students, but it also refers to the rules that all stakeholders must obey. In this context, it is expected that students, teachers, parents, and administrators are also conscious of these rules.

NASDTEC, which is dedicated to providing leadership and support to educators, released a model code of ethics. The association announced the responsibilities to the profession, students, the school community, professional competence, and ethical use of technology. According to the text, professional teachers should use technology and social media responsibly and accountably for teaching and learning purposes. They should closely follow the current trends of technology used in education. They should be able to encourage colleagues, school staff, parents, and community members to implement useful technologies such as web 2.0 tools. Additionally, they should know how to access, certify, and use information and explain to students and educators how to recognize and prevent plagiarism. Finally, they should be educated to keep their personal and professional lives separate and act prudently in protecting virtual profiles (Mcee, 2020).

In the 19th National Education Consultation, under the heading of increasing the quality of teachers, there is a recommendation that "As in every profession, the ethical codes and professional standards of the teaching profession should be established

immediately and shared with the relevant parties. These standards are strategically important in increasing the social reputation of the teaching profession" (MoNE, 2014, 2.1.6./39). Academic studies are expected, as stated above. Knowing, accepting, and applying ethical values means that teachers also know the most appropriate behavior in their professional lives (Çörez, 2016, p. 443; Muir & Reeder, 1929, p. 69). Ethical rules show that the profession has a reputation. Professional ethical rules in the field of instructional technology are intended to protect the rights of the field itself and those working in that field (Çörez, 2016, p. 443; Yeaman et al., 2008, p. 295).

How ethically teachers use hardware, software, and social media tools should be questioned. In cases where ethical values are not followed, the training needs of teachers have come to light. In this respect, the status of teachers in ethical use of information technologies should be revealed. Various in-service and out-of-service activities should be developed in line with the training needs. Based on this, conducting research for the training needs of teachers regarding the ethical use of information technologies is necessary.

The general purpose of this research was to determine the training needs of teachers regarding the ethical use of information technologies. For this purpose, the following questions were sought:

1. What are the training needs of teachers regarding the ethical use of information technologies?

2. Do the training needs of teachers differ significantly according to their gender, teaching level, professional seniority, branches, and education degree?

It is hoped that this study will provide significant contributions to the educational activities for teachers to achieve their ethical use of information technologies.

Theoretical Framework and Literature

Ethics, derived from *ethos in ancient Greek,* expresses the relationship between humans and other beings according to certain norms, principles, rules, and values (Cevizci, 2012, pp. 2-3). Ethics is the branch of philosophy that deals with questions about how we should live, what right and wrong is, how to determine good and bad, and what we should and should not do (Buckinghan, 2012, p. 341). Informatics Ethics is a philosophy branch that examines the behaviors of service providers and users in the field of informatics (TBD, 2010). It is an applied ethics field that examines the behaviors of individuals in the informatics environment (Leymun, 2018). Information technologies are all tools and equipments used in informatics (TDK-BT, 2020). These cover all technologies, including computers used to collect, process, and store information, transmit it from one place to another via networks, and present it to users. Information technologies are all kinds of visual, audio or printed tools that enable forming information and accessing it.

Education is the process of creating a deliberate change in an individual's behaviors through his own life. It is the sequence of changes in the desired direction in a person's behaviors through interaction with other people and their environment (Demirel & Kaya, 2015, p. 6). After determining the training needs of teachers for IT

ethics, a new phase needs to be handled, which is to educate those who lack their professional competence in ethical care.

Need is a requirement, strong desire, poverty, and absence (TDK-i, 2020). Witkin and Altschuld (1995, p. 9) defined need as a gap. They explained this gap as the difference between the current situation (What is it?) and the state that should be (What should be?). Training need is the difference between the competencies required by a job and the competencies of the personnel. It is also defined as the difference between the competencies required for future work and the competencies for the current job. This difference indicates the competencies to be gained to the staff and the need for in-service training (Taymaz, 1997, pp. 25-26).

Witkin and Altschuld (1995, pp. 10-12) examined the concept of need at three levels. At the first level, there are people who receive services such as students. At the second level, there are those who provide services such as teachers. At the third level, there are resources and solutions such as technology. Witkin and Altschuld (1995, p. 15) stated that needs analysis could be done in three phases. These are phases of exploration, data gathering, and utilization.

Burton and Merrill (1991, pp. 17-43) determined that there are six types of needs as a result of their evaluation. These are normative needs, felt needs, expressed needs (or demand), comparative needs, anticipated needs (or future needs), and critical-incidents needs. In normative needs, it occurs when a person cannot meet the specified standard. Stufflebeam et al. (1985, pp. 3-8) identified four different needs assessment approaches. These are discrepancy, democratic, analytical approach, and diagnostic view. Discrepancy view is the need arising from the gap between desired performance and observed performance. It is necessary to have a norm and criterion for this needs analysis. Within the scope of this study, the normative need type and discrepancy view were used. The gap between the desired situation and the observed situation shows the training needs of the teachers.

Sivin and Bialo (1992, pp. 11-12) presented an overview of the ethical values of students, teachers, administrators, and policymakers on education. They examined some case events that occur among teachers and students. For example, teachers in a primary school have distributed cracked copies of the software to the students. In a secondary school, students have been encouraged to communicate via e-mails. After a while, a student has started to write stories with obscene content as e-mail to his friends. A high school student has shared stolen phone access codes over a class communication forum. They mentioned that mostly students and in some cases educators need guidance on the legal and ethical values of technology use as a result.

Tanrıkulu (2019) studied to find out how school children learn cyberbullying. Articles in the subject areas were reviewed. Three main reasons have been identified. These are home related ones, school related ones and technology related ones. Schools are common places where children socialize. School children learn from peers and adults. As a finding, it has revealed that school children in all grades cyberbully others. The indifference of teachers or principals also has been found out another reason for cyberbullying perpetration.

Dedeoğlu (2006) addressed the increasing ethical problems due to the influence of information technologies. The accuracy of the information, private life, privacy,

personal rights, computer crimes, intellectual property rights, unemployment, health problems, social relations, home offices, family related issues, virtual environment, virtual relationships, numerical division, artificial intelligence, and social interest are some of the main problem areas.

Çelen and Seferoğlu (2016) examined local and foreign literature on unethical behavior in the use of information and communication technologies. Results of these reviews reveal that facilities provided by technology can encourage a modest person in social life to act unethically and commit crimes in the cyber world. Social norms, gender, parental education status, age, personal values, moral judgement, social values, and moral responsibility were found to be effective in the ethical and legal use of information and communication technologies. According to the review results, universities were the most studied level with 68% in total as the participant group. There is no study with high school and very low with primary level.

Levent and Kınık (2017) examined postgraduate theses on ethics in the education field in Turkey. In these theses, mostly school managers (%44,6), teachers (%16,5), candidate teachers and students were studied as participating groups. The majority of these studies were made at the Master's degree level.

Fidan (2016) examined the Information Technologies and Software Course taught at the secondary school level according to the dimensions of informatics ethics. According to the results, there is no outcome in the book regarding cyberbullying and cybercrime. Copyrights have been mentioned, but concepts such as intellectual property and patent infringement are not explicitly included. Communication and social impact are left superficial. The main recommendation of the researcher is to provide education at an early age in order to minimize the problems that may be experienced regarding ethics.

Sarıkoç (2018) investigated teachers' unethical computer use behaviors. According to the results, unethical computer usage behaviors do not change according to the branch. It varies according to gender, age, and professional seniority. Males, elders, and those with more years of service show more unethical behavior than others. The most interesting result obtained is that those who receive informatics ethics training act more unethically than those who do not.

Mccannon and Crews (2000) evaluated the technology education needs of primary school teachers. Computers and technology are widely used in high school and middle school as well as in primary schools. However, technologies in school are used for administrative purposes rather than educational processes. Personnel development courses have been mostly for administrators and limited to teaching word processing software so far. Researchers suggested topics such as the use of the World Wide Web and CD-ROMs, learning presentation software, and conducting research with computers for teachers.

Akçadağ (2010) investigated the training needs of teachers regarding methods, techniques, and measurement and evaluation techniques in the primary education curriculum. According to the results, the teachers stated that they were in need of training in methods and techniques of drama, concept map, fishbone, mind map, providing learning environments, preparing a learning environment according to intelligence fields, product file, checklist, and project.

Hu (2010) focused on the training needs of early childhood teachers in China in her study. The topics "Directing the behaviors of children", "Helping students to solve their own problems in the face of what is happening", and "Teaching self-control" were the most frequently needed situations by teachers.

Vladimirovna et al. (2016) investigated teacher competence for preventing pupils' deviant behaviors in ICT. Teachers would need training if they lack competence. Anti-social, immoral, illegal criminal activities, script-kidding, cybersex, trolling, flooding, flaming with ICT are some of deviant behaviors. In order to make prospective teachers competent, they should be trained to diagnose the bizarre behavior of pupils. In addition, they have to be aware of information security and the impacts of ICT on the mental, emotional and physical health and also ethical, legal, and moral use of ICT.

Mâta et al. (2020) developed a scale to measure the attitude of university teachers towards the ethical use of ICT. The scale consists of 13 items and 4 factors: cognitive needs, cognitive constraints, behavioral ICT Use, and behavioral data management. There are some traditional items in the scale, such as "Distributing information in online environment without indicating the source violates ethical rules for the use of IT. The teacher must check whether or not the students use information technology ethically. An unlicensed educational software can be used in current educational activities. Phrases can be processed from an online source, in research work, without mentioning the source."

Novella-García and Cloquell-Lozano (2021) made a content analysis for gathering data about ethical dimension of digital competence in prospective teacher training subjects in Spain. 118 study plans were reviewed. The results showed that digital competence was included in nearly three-fourths of the plans, but the ethical dimension was included only in one-fourths of the plans. This means that prospective teachers currently receive little training in digital ethics than digital competence training.

Baydar's (2021) study aims to determine and compare the relationship between cyberloafing and ethical behaviors of teachers' and school administrators'. The study was carried out within Istanbul province, and the data was collected electronically via an ethical behaviors scale. According to the results, school administrators and teachers' perceptions of ethical behaviors were very high and their perceptions of cyberloafing were low.

In the training needs studies in which teachers are the subject, the training needs regarding professional competence, method, technique, measurement, evaluation, general culture, field knowledge, vocational knowledge, constructivist approach, early childhood, and the situation of gifted people have been investigated. However, the original aspect of this study is that the training needs of teachers regarding the ethical use of information technologies have not been investigated.

Method

Research Design

In the study, the survey research design from descriptive researches was employed to determine the educational needs of teachers regarding the ethical use of information technologies. In descriptive research, a situation is defined as completely

and carefully as possible. Studies aimed at collecting data to determine certain characteristics of a group are called survey research (Fraenkel et al., 2012, p. 12, 15). Survey studies provide a quantitative description of trends, attitudes, and views across the universe through studies conducted on a sample (Creswell, 2017, p. 155). The university ethics committee report and the provincial governor permission were taken to make this research.

Participants

The entire population of the research was the teachers working in public schools in Afyonkarahisar province. The sample group was determined from this population. The schools were stratified as primary school, secondary school, divinity secondary school and high school. The schools in the city center were determined and appointed to relevant stratum. A certain number of schools were randomly selected from each stratum. It was aimed to reach all teachers in the selected schools.

There are 8.713 teachers working in 838 educational institutions in Afyonkarahisar province (Afyon MEM, 2019). Twenty-five primary schools, 18 secondary schools, eight divinity secondary schools, eight high schools were selected by drawing lots. Teachers working in each selected school are included in the sample group.

A total of 745 teachers were reached within the scope of the study. After the missing data were excluded, the analyses were made with 641 data. The data collected from the participants were used only within the framework of this research and were not subject to other studies and were not made available to third parties. The distributions of the participants according to their demographic values are given in Table 1 in terms of frequency and percentage.

Table 1

Distribution of Participants According to Demographic Data

Gender	n	%
Female	356	55.5
Male	285	44.5
Teaching Level	**n**	**%**
Primary school	235	36.7
Secondary school	250	39
High school	156	24.3
Professional Seniority	**n**	**%**
0-5 years	81	12.6
6-10 years	160	25.0
11-15 years	143	22.3
16-20 years	124	19.3
21++ years	133	20.8

Main Branch	n	%
Elementary	230	35.9
Science & Math	108	16.9
Social Sciences & Language	188	29.3
Fine Arts	49	7.6
Vocational	66	10.3
Education Degree*	n	%
Under Graduate	561	87.5
Master (MS)	75	11.7
Doctorate (PhD, EdD)	2	.3
Other	3	.5
Total	641	100

* MS: Master of Science, PhD: Doctor of Philosophy, EdD: Doctor of Education

According to the data in Table 1, 356 of the 641 teachers participating in the study are women and 285 are men. Proportionally, 55.5% of the participants are women and 44.5% are men. 235 of the 641 teachers participating in the study are in primary school, 250 are in secondary school, and 156 are in high school. Proportionally, 39% of the participants work in secondary schools, 36.7% in primary schools, and 24.3% in high schools. 81 of the 641 teachers participating in the study work in their first five years, 160 in the second five years, 143 in the third five years, 124 in the fourth five years, and 133 in the fifth five years and more. The group with the highest participation is the teachers who worked for the second five years with 25%. The group with the least participation is the teachers who worked for the first five years with 12.6%.

Participant teachers are mostly located in the *Elementary* branch, secondly in the *Social Sciences & Language* branch, and thirdly in the *Science & Math* branch. The least participation was from *Fine Arts* and *Vocational* branches. In the main branch of the Elementary, there are "Primary Education", "Special Education Teaching", and "Preschool Teaching". In the main branch of the Science & Math, there are "Mathematics", "Science and Technology", and "Physics, Chemistry, Biology Teaching". In the main branch of the Social Sciences & Language, there are "Turkish", "Turkish Language and Literature", "Foreign Language", "Religious Culture and Ethics", "Social Sciences", and "History, Geography, Philosophy Teaching". In the main branch of the Fine Arts, there are "Visual Arts", "Music, Physical Education Teaching" and "Technology Design Teaching". In the main branch of the Vocational, there are "Guidance and Consulting", "Information Technologies", "Workshop, Lab., Vocational and Field Courses Teaching", and "Divinity Vocational Courses Teaching".

According to the data in the table, 561 of the 641 teachers participating in the study are undergraduate, 75 are master and 2 are doctorate graduates. Three are who are not graduates of university. Proportionally, 87.5% of the participants are undergraduates and 12% are master and doctorate education graduates.

Data Collection Tool

The scale used in the study was developed by Baysan and Çetin (2019). The item pool of the scale was formed from the items of ethical scales in the literature and interviews with teachers. The first part of the scale consisted of demographic information such as gender, teaching level, branch, educational degree, and professional seniority. The second part consisted of scale items with 5-Likert type options. A draft form with 56 items was created and an exploratory factor analysis was made from the pilot application.

As a result of exploratory factor analysis, five sub-dimensions were determined with 54% of the total variance. Sub-dimensions are namely, Privacy, Communication, Stalking, Accessibility, Confidence and Material. Cronbach Alpha internal consistency coefficients of the sub-dimensions were .81, .79, .74, .65 and .58, respectively. Cronbach's alpha internal consistency coefficients for the whole scale is .85. The five sub-dimensions consist of 8, 4, 3, 3, and 5 items, respectively. The KMO (Kaiser Meyer Olkin) value of the 23-item final form of the scale was .83 and Bartlett's test of sphericity was significant. According to the confirmatory factor analysis results, model fit indexes were good and acceptable and the scale was a valid and reliable measurement tool. Due to low level correlation coefficients, participants would not be given a total score from the scale; sub-dimensions should be evaluated separately.

Data Collection and Analysis

With the scale of ethical use of information technologies in education, quantitative data were collected, and the data were analyzed through statistical software. In order to collect data in schools, the approval of the Governorship and the ethics committee report were received. The researcher applied the scale on a voluntary basis by reaching the schools one by one without disrupting education and training. Answers to research questions were sought with the obtained data.

The scale consists of demographic information of the participants and question items. Before the statistical analysis, the missing data analyses were made over the collected data. Leaving one of the question items missing may require excluding that participant from the study. During the research, maximum effort was made to fill them in the scale forms completely, and the forms with incomplete information that could not be compensated were removed from the research.

In order to determine the normality of the data set, central tendency measures, skewness and kurtosis coefficients of the distribution, Kolmogorov-Smirnov and Shapiro-Wilk test results, frequency distributions, normal quantile-quantile plot, and detrended normal Q-Q plot graphs were examined. According to these results, the data were not distributed normally, so non-parametric tests should be used in the analysis of the data.

The demographic information of the participants were given in tables under Participants heading. According to the responses of the participants to the scale, training needs for each sub-dimension were also given in tables under the Findings heading. Mann Whitney-U and Kruskal-Wallis tests were conducted to determine whether the participants' scores made a significant difference according to independent variables on a sub-dimension basis.

Results

This section includes missing data analysis, normality tests, training needs of teachers regarding sub-dimension and significance tests according to independent variables. If categorical entries were not filled fully by the participants, these forms were not included in the data set. Then data set was checked whether it is randomly distributed or not. According to the EM estimated statistical analysis result, $p<.05$; the data were not randomly distributed, so missing data could not be assigned. So the forms containing the missing items were also removed. Although data were collected from a total of 745 participants at the beginning, then the analyses were made with 641 data.

The normality of the data was checked with central tendency measures, the skewness and kurtosis coefficients, Kolmogorov-Smirnov and Shapiro-Wilk tests, the frequency distributions, the normal Quantile-Quantile chart and Detrended Normal Q-Q Plot graphics. The mean, median, and peak values in the data set should be close to each other in normal data distribution. The data were close to each other for five factors. These results showed that the data were normally distributed. When the skewness or kurtosis is divided by standard error, and the result is between -1,96 and +1,96, then the data distribution is normal (Can, 2016, pp. 84-90). But unfortunately, the values were between -31.608 and 76.082. The desired value ranges were not captured. If the normality values are significant in Kolmogorov-Smirnov and Shapiro-Wilk tests, the data are not distributed normally. The p value of all sub-dimensions for both tests was below .05. The values are significant and the data were not distributed normally. The normality of the data was checked according to the frequency distributions. A symmetrical bell curve emerges when the peaks of the bars in the graph are combined in the data exhibiting normal distribution. The frequency distributions of the data for five sub-dimensions had an increasing trend from left to right. So the data was not distributed normally. The normality of the data was checked according to the normal Quantile-Quantile chart and Detrended Normal Q-Q Plot graphics. As a result of the above tests performed for this study, the data for all five sub-dimensions in the scale were not normally distributed, so non-parametric tests were used in the analysis of the data.

Teachers' Training Needs regarding the Ethical Use of IT

The participants were given mean scores according to sub-dimensions. It was accepted that those who perform completely unethical, unethical, and moderate ethical behavior need training. The numbers and percentages of the participants in the privacy sub-dimension corresponding to the value ranges are given in Table 2.

Table 2

The Participants' Training Needs According to Privacy Sub-dimension

Mean Ranges	Status	*n*	%
1.0-1.8	Completely unethical	1	.16
1.8-2.6	Unethical	2	.31
2.6-3.4	Moderate ethical	3	.47
3.4-4.2	Ethical	45	7.02
4.2-5.0	Very ethical	590	92.04
Total		641	100

According to the data in Table 2, one teacher exhibits completely unethical, and two teachers exhibit unethical while three teachers exhibit moderate ethical behavior. In this case, it was seen that 1% of the participant teachers need training in the context of the privacy sub-dimension. The numbers and percentages of the participants in the communication sub-dimension corresponding to the value ranges are given in Table 3.

Table 3

The Participants' Training Needs According to Communication Sub-dimension

Mean Ranges	Status	*n*	%
1.0-1.8	Completely unethical	9	1.4
1.8-2.6	Unethical	18	2.8
2.6-3.4	Moderate ethical	66	10.3
3.4-4.2	Ethical	157	24.5
4.2-5.0	Very ethical	391	61.0
Total		641	100

According to the data in Table 3, nine teachers exhibit completely unethical, 18 teachers exhibit unethical while 66 teachers exhibit moderate ethical behavior. In this case, it was seen that 14.5% of the participant teachers need training in the context of the communication sub-dimension. The numbers and percentages of participants in the stalking sub-dimension corresponding to the value ranges are given in Table 4.

Table 4

The Participants' Training Needs According to Stalking Sub-dimension

Mean Ranges	Status	*n*	%
1.0-1.8	Completely unethical	10	1.6
1.8-2.6	Unethical	28	4.4
2.6-3.4	Moderate ethical	108	16.8
3.4-4.2	Ethical	147	22.9
4.2-5.0	Very ethical	348	54.3
Total		641	100

According to the data in Table 4, 10 teachers exhibit completely unethical, and 28 teachers exhibit unethical while 108 teachers exhibit moderate ethical behavior. In this case, it was seen that 22.8% of the participant teachers need training in the context of the stalking sub-dimension. The numbers and percentages of participants in the accessibility sub-dimension corresponding to the value ranges are given in Table 5.

Table 5

The Participants' Training Needs According to Accessibility Sub-dimension

Mean Ranges	Status	*n*	%
1.0-1.8	Completely unethical	1	.16
1.8-2.6	Unethical	0	0
2.6-3.4	Moderate ethical	6	.94
3.4-4.2	Ethical	48	7.5
4.2-5.0	Very ethical	586	91.4
Total		641	100

According to the data in Table 5, one teacher exhibits completely unethical, and no teacher exhibits unethical while six teachers exhibit moderate ethical behavior. In this case, it was seen that 1.1% of the participant teachers need training in the context of the accessibility sub-dimension. The numbers and percentages of participants in the confidence and material sub-dimension corresponding to the value ranges are given in Table 6.

Table 6

The Participants' Training Needs According to Confidence and Material Sub-dimension

Mean Ranges	Status	*n*	%
1.0-1.8	Completely unethical	0	0
1.8-2.6	Unethical	6	.94
2.6-3.4	Moderate ethical	54	8.42
3.4-4.2	Ethical	181	28.2
4.2-5.0	Very ethical	400	62.4
Total		641	100

According to the data in Table 6, no teacher exhibits completely unethical, and six teachers exhibit unethical while 54 teachers exhibit moderate ethical behavior. In this case, it was seen that 9.4% of the participant teachers needed training in the context of the confidence and material sub-dimension. The column chart of the participants who need and do not need training according to each sub-dimensions of the scale is given in Figure 1.

Figure 1

Training Needs Chart of the Participants According to Each Sub-dimensions

According to Figure 1, the area shown with the blue bar represents those who do not need training, and the area shown with the red bar represents those who need training. The sum of the two bars gives the number of participants, 641. As seen in the figure, training is required mostly in the third, second, fifth, fourth, and first sub-dimensions, respectively.

Teachers' Training Needs according to their Gender

The results of the Mann Whitney-U test, in which sub-dimensions are compared according to gender, are given in Table 7.

Table 7

M-W U Test Result of Ethical Use of IT in Education According to Gender

Gender	*n*	Mean Rank	Sum of Ranks	*M-W U*	*p*	Significance Effect Size
Female	356	331.69	118081.00	46925.00*	.031*	*p<*.05 Yes Cohen-d= .129
Male	285	307.65	87680.00			

* for 4. factor Accessibility

When the mean scores of the teachers regarding the sub-dimensions of the scale were evaluated, there was no significant difference in terms of gender in the factors other than the 4th factor (*U*=46925.00, *p<*.05). The effect size of the difference between male and female teachers was Cohen-d=.129. It could be said that the effect value was too small to be ignored. Considering their mean rank, it was that female teachers have used information technologies more ethically than men.

The Cohen d value calculated for the Mann Whitney-U test indicates a large effect if it is above .8, medium effect if it is above .5, and small effect size if it is above .2. For the Kruskal-Wallis test, if it is above .4, it indicates a large effect, if it is above .25, it indicates a medium effect, and if it is above .1, it indicates a small effect size (Büyüköztürk, 2012, p. 44; Şevgin & Çetin, 2017).

Teachers' Training Needs according to their Teaching Level

Kruskal-Wallis test results of ethical use of IT in education according to teaching levels are given in Table 8.

Table 8

Kruskal-Wallis Test Results of Ethical Use of IT in Education According to Teaching Levels

	Teaching Level	*n*	Mean Rank	*sd*	χ^2	*p*	Significance Effect Size
3.Factor Stalking	Primary	235	295.76	2	12.835	.002*	*p<*.05 Yes Primary-High S. Secondary-High S. Cohen-d=.263
	Secondary	250	319.05				
	High School	156	362.15				
4.Factor Accessibility	Primary	235	319.01	2	7.293	.026*	*p<*.05 Yes Secondary-High S. Cohen-d=.183
	Secondary	250	307.41				
	High School	156	345.77				

When the mean scores of the teachers regarding the sub-dimensions of the scale were evaluated, there was no significant difference in terms of teaching level in factors other than the 3rd factor (χ^2(df=2, n=641)=12.83, p<.05) and 4th factor (χ^2(df=2, n=641)=7.29, p<.05). The effect size of the difference between the levels in the third factor was Cohen-d=.263. It could be said that the value had a medium effect size. The effect size of the difference between the levels in the fourth factor was Cohen-d=.183. It could be said that the value had a small effect size.

Mann Whitney-U test was conducted in order to determine in which levels there was a significant difference. According to the U test results of the third factor, significant differences were found between primary and high school teachers (U=14535.50, p<.05) and between secondary and high school teachers (U=16875.00, p<.05). According to the U test results of the fourth factor, significant differences were found between secondary and high school teachers (U=17160,50, p<.05). Considering the mean rank of the groups for the third factor, it was seen that the most ethical level was high school, middle school, and primary school, respectively. Considering the mean rank of the groups for the fourth factor, it was seen that the most ethical level was high school, primary school and secondary school, respectively.

Teachers' Training Needs according to their Professional Seniority

Kruskal-Wallis test results of ethical use of IT in education according to professional seniority are given in Table 9.

Table 9

Kruskal-Wallis Test Results of Ethical Use of IT in Education According to Professional Seniority

	Professional Seniority	n	Mean Rank	sd	χ^2	p	Significance Effect Size
1.Factor Privacy	0-5	81	273.08	4	14.846	.005*	*p*<.05 Yes
	6-10	160	319.61				0-5/6-10
	11-15	143	335.18				0-5/11-15
	16-20	124	358.65				0-5/16-20
							6-10/16-20
	21++	133	301.50				16-20/21++
							Cohen-d=.263
5.Factor Confidence and Material	0-5	81	302.16	4	12.760	.013*	*p*<.05 Yes
	6-10	160	335.33				6-10/21++
	11-15	143	329.79				11-15/21++
	16-20	124	350.63				16-20/21++
	21++	133	278.15				Cohen-d=.236

When the mean scores of the teachers regarding the sub-dimensions of the scale were evaluated, there was no significant difference in terms of professional seniority in factors other than the 1st factor (χ^2(sd=4, n=641)=14.84, p<.05) and 5th (χ^2(sd=4, n=641)=12.76, p<.05). The effect size of the difference between the levels in the 1st

factor was Cohen-d=.263. It could be said that the value had a medium effect size. The effect size of the difference between the levels in the 4th factor was Cohen-d=.236. It could be said that the value has a small effect size.

Mann Whitney-U test was conducted in order to determine in which levels there is a significant difference. According to the U test results of the 1st factor, significant differences were found between the teachers working for 0-5 years and those working for 6-10 years (U=5505.50, p<.05); between the teachers working for 0-5 years and those working for 11-15 years (U=4600.00, p<.05); between the teachers working for 0-5 years and those working for 16-20 years (U=3713.00, p<.05); between the teachers working for 6-10 years and those working for 16-20 years (U=8675.00, p<.05) and between the teachers working for 16-20 years and those working for 21++ years (U=6852.50, p<.05). According to the U test results of the 5th factor, significant differences were found between the teachers working for 6-10 years and those working for 21++ years (U=8748.50, p<.05); between teachers working for 11-15 years and those working for 21++ years (U=7973.50, p<.05); between the teachers working for 16-20 years and those working for 21++ years (U=6479.00, p<.05). Considering the mean rank of the groups, it was seen that the most ethical group was the seniority of "16-20", "11-15", "6-10", "21++", and "0-5" respectively for the 1st factor; and "16-20", "6-10", "11-15", "0-5", and "21++" respectively for the 5th factor.

Teachers' Training Needs according to their Branch

Kruskal-Wallis test results of ethical use of IT in education according to main branch are given in Table 10.

Table 10

Kruskal-Wallis Test Results of Ethical Use of IT in Education According to Main Branch

	Professional Seniority	n	Mean Rank	sd	χ^2	p	Significance Effect Size
	Elementary	230	292.55				p<.05 Yes
	Science & Math	108	337.67				Elementary/Science & Math
3.Factor Stalking	Social Science & Language	188	346.56	4	14.222	.007*	Elementary/Social Science & Language
							Elementary/Vocational
	Fine Arts	49	282.88				Social Science & Language/Fine Arts
	Vocational	66	348.36				Cohen-d=.256

When the mean scores of the teachers regarding the sub-dimensions of the scale were evaluated, there was no significant difference in terms of main branch in factors other than the 3rd factor (χ^2(sd=4, n=641)=14.222, p<.05). The effect size of the difference between the levels in the 3rd factor was Cohen-d=.256. It could be said that the value had a medium effect size.

Mann Whitney-U test was conducted in order to determine in which branches there was a significant difference. According to the U test results of the 3rd factor, significant differences were found between Elementary and Science & Math branch teachers (U=10699.00, p<.05); between Elementary and Social Sciences & Language branch teachers (U=17921.00, p<.05); between Elementary and Vocational branch teachers (U=6275.000, p<.05); between Social Sciences & Language and Fine Arts branch teachers (U=3694.50, p<.05). Considering the mean rank of the groups for the 3rd factor, it was seen that the most ethical group was Vocational, Social Sciences & Language, Science & Math, Elementary, and Fine Arts teachers, respectively.

Teachers' Training Needs according to their Educational Degree

When the mean scores of the teachers regarding the sub-dimensions of the scale are evaluated, no significant difference was observed in terms of educational degree in these factors.

Discussion and Conclusion

The main purpose of this research was to determine the training needs of teachers regarding the ethical use of information technologies. The participants were teachers working in public schools in Afyonkarahisar province.

According to the results, 22.8% of the teachers needed ethical training in the sub-dimension of Stalking, 14.5% in Communication, 9.4% in Confidence and Material, 1.1% in Accessibility, and 1% in Privacy. According to the results of this study, the average of the training needs of teachers was 9.8%. In other words, 90.2% of the teachers did not need training. This result was amazing and higher than expected. According to Ottekin-Demirbolat and Aslan (2014), teachers' ethical sensitivity is at a high level. According to Baydar (2021), school administrators and teachers' perceptions of ethical behaviors were very high.

There was a significant difference between males and females in fourth factor (Accessibility) on the behalf of females. They were more ethical than males. Considering the mean rank, it was observed that female teachers also behaved more ethically than men in first (Privacy) and fifth (Confidence and Material) factors of the scale. These results are similar to the study of Sarıkoç (2018). Males showed more unethical behavior than others. Koçyiğit (2017) also stated that women are more sensitive than men about ethical attitudes in some sub-dimensions or total scores. McCarthy et al. (2005), Roberts et al. (2005), and Adam and Ofori-Amanfo (2000) also figured out that women display more ethical attitudes than men.

In the third factor (Stalking) of the scale, high school teachers showed a significantly more ethical use than primary and secondary school teachers. In the fourth factor (Accessibility), high school teachers behaved significantly more ethically than secondary school teachers. Considering their mean rank, high school teachers were the group that displayed the most ethical behavior in the third, fourth, and fifth (Confidence and Material) factors.

Teachers are classified according to five-year tenure periods. According to the results, it was determined that there was a significant difference between the tenure periods in the first and fifth factors. In the first factor (Privacy), teachers who worked for the first five years showed more unethical behavior than others. In the fifth factor

(Confidence and Material), teachers who worked for the fifth five years and more show more unethical behavior than others. Sarıkoç (2018) also resulted out that elders and those with more years of service show more unethical behavior than others. It has been figured out that teachers who worked for 11-15 years are more sensitive than teachers who worked for 26 years or more (Koçyiğit, 2017). This is the same result; the elder ones behave more unethical behavior.

According to the results, it was figured out that there was a significant difference between main branches in the third factor, namely Stalking. Elementary main branch teachers behaved significantly unethical than other branch teachers. This situation coincides with Roberts et al.'s (2005) study. He stated that different clinicians identified different ethical training needs. Priorities, ethical requirements, and violability have changed as the branches differ.

When the average scores of the teachers regarding the sub-dimensions of the scale are evaluated, no significant difference was observed in terms of education degree in any factor. These findings mean that education degree does not make a significant difference in teachers' ethical use of information technologies in the Privacy, Communication, Stalking, Accessibility, and Confidence & Material sub-dimensions of the scale.

Calluzzo and Cante (2004) found that the participants did not commit ethical violations regarding Privacy and could commit ethical violations regarding Confidence and Material. This is based on the idea that they could use the property of the institution as they wish. These results coincide with the results of this study. Privacy is the least needed for training among other factors. The Confidence and Material factor is a subject area that requires training for teachers.

It is possible to find the sub-dimensions of Privacy, Integrity, Intellectual Property, Accessibility, Social Impact, Safety, and Quality in ethical scales developed in the context of informatics (Dikbaş-Torun, 2014; Mason, 1986; Namlu & Odabasi, 2007). The scale used in this research has sub-dimensions named Communication and Stalking in addition to Privacy, Accessibility, Confidence and Material.

Implications for Teachers

Here, some advice for teachers. They should not secretly pursue their colleagues, students and administrators on social media. Teachers are advised not to talk about extracurricular matters with their students. Teachers should avoid behaviors that will contaminate their corporate identities. Teachers should use technological facilities such as the internet, interactive board, tablet, copier, messaging infrastructure and software for educational purposes, not for providing self-interests. The advice offered to teachers is also recommended for administrators, parents, and students.

Implications for Researchers

This research was carried out for teachers within the province of Afyonkarahisar. Same kind of a research may be carried out for administrators, parents or students. The validity of this study can be tested with studies to be conducted in other provinces. Training needs of teachers were examined via obtaining their own thoughts. In a new research, their training needs may be examined via obtaining administrators, parents, and students thoughts.

Conflicts of Interest

There are no conflicts of interest in this study.

Statement of Responsibility

Emre Baysan is the most responsible for writing and finalizing the paper. Şaban Çetin is the supervisor. During the review process, all authors revised the paper.

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