Van Yüzüncü Yıl University Journal of Education, 2022; 19(3); p. 1016-1046. DOI: 10.33711/yyuefd.1129543

Investigation of Teacher's Role and Duty on the Basis of Social Emotional Learning in After-School Coding Courses

Meryem Fulya GÖRHAN[1], Arif ALTUN[2]

Abstract: After-school courses include programs in which students participate voluntarily according to their wishes and interests. In after-school coding courses, among which block-based coding tools are studied and practiced in small groups in general. These courses have many positive effects, such as increasing the students' school performance and supporting their positive attitudes. In addition, social-emotional learning, which covers the features desired by today's business world, can be supported by these courses. In literature, there are studies on the role and duties of the teacher in formal education; however, there are no studies on determining the roles and duties of the teacher in after-school courses. This study aims to examine the role and duties of the teacher in the coding courses after school based on social-emotional learning. For this purpose, one-on-one and focus group interviews were conducted with seven teachers who gave after-school coding courses. Content and frame analysis was performed on the obtained data, and three themes emerged: peer relations, self-regulation, and duty consciousness. As a result of the study, it was seen that teachers fulfill the roles of observer, communicator, manager, counselor, organizer, and supporter.

Keywords: Coding education, after-school courses, social-emotional learning, the roles of teachers in coding courses

Okul Sonrası Kodlama Kurslarında Sosyal Duygusal Öğrenme Temelinde Öğretmenin Rol ve Görevlerinin İncelenmesi

Öz: Okul sonrası kurslar öğrencilerin istek ve ilgilerine göre gönüllü olarak katıldıkları programları içermektedir. Bu programlardan olan okul sonrası kodlama kursunda blok tabanlı kodlama araçları uygulamalı olarak işlenmekte ve genellikle küçük gruplar şeklinde çalışılmaktadır. Bu kursların öğrencilerin okul performansının artması, olumlu yönde tutumlarının desteklenmesi gibi birçok olumlu etkisi olmaktadır. Ayrıca bu kurslar ile günümüz iş dünyasının istediği özellikleri içeren sosyal duygusal öğrenme desteklenebilmektedir. Mevcut çalışmalar incelendiğinde ise formal eğitimde öğretmenin rol ve görevlerine yönelik çalışmalar bulunurken okul sonrası yapılan kurlarda öğretmen rol ve görevlerini belirlemeye yönelik yapılan çalışmalara rastlanmamıştır. Bu çalışmanın amacı okul sonrası yapılan kodlama kurslarındaki öğretmenin rol ve görevlerinin sosyal duygusal öğrenme temel alınarak incelenmesidir. Bu amaç doğrultusunda okul sonrası kodlama kursu vermiş yedi öğretmen ile birebir ve odak grup görüşmesi yapılmıştır. Elde edilen verilere içerik ve çerçeve analizi yapılmıştır. Akran ilişkileri,

Geliş tarihi/Received: 12.06.2022 Kabul Tarihi/Accepted: 19.11.2022 Makale Türü: Araştırma Makalesi

* Bu çalışma ikinci yazarın danışmanlığındaki birinci yazarın doktora tezinden üretilmiştir.

[1] Doktora Öğrencisi, Hacettepe Üniversitesi, BÖTEB, fulyamg@gmail.com, 0000-0003-0280-3547

[2] Prof. Dr., Hacettepe Üniversitesi, BÖTEB, altunar@hacettepe.edu.tr, 0000-0003-4060-6157

Atıf için/To cite: Görhan, M. F., & Altun, A. (2022). Investigation of teacher's role and duty on the basis of social emotional learning in after-school coding courses. *Van Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, *19*(3), 1016-1046. https://doi.org/10.33711/yyuefd.1129543

özdüzenleme ve görev bilinci olmak üzere üç tema ortaya çıkmıştır. Çalışmanın sonucunda öğretmenlerin gözlemci, iletişimci, yönetici, rehber, organizatör ve destekleyici rolleri yerine getirdikleri görülmüştür.

Anahtar kelimeler: Kodlama eğitimi, okul sonrası kurs, sosyal duygusal öğrenme, kodlama kursunda öğretmenin rolü

Introduction

After-school programs are voluntary activities that provide opportunities for students to develop themselves in the fields they want (Irkıçatal, 2016). According to the Ministry of National Education Support and Training Courses Directive, after-school programs are courses held throughout the year to support and train students who are willing to study in public and private formal education institutions affiliated with the Ministry of National Education and those who have graduated from formal secondary education institutions (MEB, 2020). Therefore, based on these features, after-school programs can be defined as follows: These programs are planned activities carried out in public and private formal education institutions affiliated with the Ministry of National Education, in which students participate voluntarily. They provide opportunities to students throughout the year to improve themselves in the fields they want. After-school courses increase academic achievement (Acar & Vural, 2018; Grolnick et al., 2007; Gürbüz, 2009; Shernoff, 2010) and improve problem-solving skills (Akcaoglu & Koehler, 2014). In the meta-analysis study conducted by Durlak et al. (2010) on after-school programs, 68 studies are examined. It is stated that after-school programs affect the development of positive social behaviors, positive emotions, and attitudes, increase school performance and decrease problematic behaviors (Durlak et al., 2010). Similarly, it was stated by Karahan et al. (2015) that students' attitudes towards the course changed positively and learning was positively affected in the after-school STEAM activity study. In the study conducted by Gürbüz (2009), the self-esteem of the students who attended the after-school courses was higher than those who did not (Gürbüz, 2009). Parents also believe that after-school courses emphase individualized instruction more (Acar & Vural, 2018). In addition, these courses provide the opportunity to re-study the course material, help to eliminate deficiencies, and support them in reinforcing what they have learned (Er Türküresin, 2018). In addition, after-school activities have effects on, such as improving social-emotional skills and increasing understanding of concepts (Irkıçatal, 2016; Shernoff, 2010; Şahin et al., 2014). In the study conducted by Acar and Vural (2018), it is stated that school administrators also hold the belief that after-school courses improve students' social and emotional skills. In the study conducted by Yazar and Baran (2020), the social (for example, social activities) and emotional (for example, lack of exam anxiety) aspects of the courses are mentioned.

The courses to be opened as after-school programs are processed into the system by the school administration of the course center. The teachers whose fields are related to the course topic apply as teaching staff candidates. Then students who are willing to take a course choose the course they want and apply. Finally, the school administration opens the courses approved by the Provincial/District Directorates of National Education with a minimum of 10 students. The number of students in a course class is not more than 24. The course center determines the course schedule be outside of school hours. Participation in the courses is voluntarily. The courses are taught according to the annual study plan. In Turkey, the details and processes on how to carry out after-school programs are guaranteed by the Ministry of National Education Support and

Training Courses Directive (MEB, 2020). In this study, coding courses, one of the after-school education activities, have been examined.

The importance and influence of the teacher in academic life are evident. The same is true for after-school courses. When the studies on the roles and duties of the teacher are examined, the roles of being supportive (Ahmethan & Yiğit, 2018; Asmalı & Çelik, 2017), information provider (Ahmethan & Yiğit, 2018; Asmalı & Çelik, 2017; Gynne & Persson, 2018), communicator (Gynne & Persson, 2018) and being a counselor (Ahmethan & Yiğit, 2018; Asmalı & Çelik, 2017; Baş et al., 2017) come to the fore. In the study conducted by Richards and Rogers (2001), the roles of the teacher were listed as being selective and ordering the task, preparing the student, and raising awareness (as cited in Büyükkarcı, 2009). On the other hand, Meşeci (2008) drew attention to the socialization, which is a different aspect of the teacher's role. As Meşeci (2008) quotes from Good and Brophy (1997), socialization role of the teacher changes according to the school level. It has been stated that in the second stage of primary education, coming to the forefront in the eyes of their peers has an important place for students and socialization has an essential place among teacher roles. The role and duty of the teacher in formal education have been determined as stated in the current studies. After-school activities differ from formal education in many ways, and unfortunately, it cannot be said that these roles are equally valid for after-school activities. Determining the prominent teacher roles and duties in after-school activities is important for providing more effective learning environments. No study has been found in the literature that clearly states the roles and duties in after-school coding courses. In the study conducted by Göksu and Gülcü (2016), it is stated that teachers teach the subjects in after-school courses differently from how they deliver it at schools (Göksu & Gülcü, 2016).

In the study conducted by Eshach (2007), out-of-school education is divided into two (non-formal and informal), while education in schools is defined as formal education. Non-formal education includes planned activities by institutions and organizations (Eshach, 2007). In addition, in non-formal education, this planning is done about important points (Colardyn & Bjornavold, 2004). On the other hand, informal education includes activities carried out spontaneously everywhere (Eshach, 2007). The after-school courses examined in this study can be considered as non-formal education. Formal education can be supported with non-formal education. For example, in the experimental study conducted by Mutlu Kaya (2020), it is concluded that non-formal education increases the transfer of knowledge to long-term memory (Mutlu Kaya, 2020). There are differences between non-formal and formal education. While non-formal education is generally intrinsically motivated, voluntary, short-term, part-time, flexibly structured, and does not include assessment; formal education is extrinsically motivated, compulsory, full-time, long-term, rigidly structured, and includes assessment (Coombs, 1989; Eshach, 2007).

While determining the roles and duties of the teacher in the after-school coding courses, social-emotional learning, which includes the features desired by today's business life, was taken as the basis. Social and emotional learning of students can be supported by after-school environments (Durlak et al., 2010; Hurd & Deutsch, 2017). Social-emotional learning (SEL) is defined by CASEL as:

> "SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for

others, establish and maintain supportive relationships, and make responsible and caring decisions"

In this study, the definition put forward by CASEL has been taken as the theoretical framework. Researchers have explored the effects of different educational programs and variables on social-emotional learning. Problem-solving skills training (Totan, 2011), conflict resolution and peer mediation training programs (Koruklu et al., 2017), and assertiveness training (Demirelli & Barut, 2020) are some examples that would improve social-emotional learning. On the other hand, social emotional learning was examined in terms of variables such as problem-solving skills (Yüksel et al., 2021), cognitive awareness (Yüksel et al., 2021), bullying (Smith & Low, 2013; Totan&Kabakçı, 2010), gender (Aksoy, 2020; Bayram, 2022; Kabakçı & Korkut, 2008; Kuyulu, 2015; Raimundo et al., 2012; West et al., 2020), school type (Aksoy, 2020), grade (Aksoy, 2020; Kabakçı & Korkut, 2008; Kuyulu, 2015; West et al., 2020), socio-economic level (Kabakçı & Korkut, 2008; Kuyulu, 2015; Raimundo et al., 2012), school success (Kuyulu, 2015), age (Bayram , 2022; Kuyulu, 2015), teaching experience (Bayram, 2022); marital status (Bayram, 2022), life satisfaction (Yıldız&Kahraman, 2011), psychological resilience (Yıldız&Kahraman, 2011), school climate (Collie et al., 2011), listening skill (Abalı & Yazıcı, 2020). SEL has an important place in citizenship education (Zins et al. ,2004). To conclude, it is seen that social-emotional learning has positive effects when addressed in the educational environment, such as reducing behavioral disorders, facilitating learning, and increasing academic performance (Durlak et al., 2011; Elias et al., 1997; MEB, 2021; Smith & Low, 2013). On the other hand, the characteristics that today's business world finds important are changing. In the report titled "Social and Emotional Learning Skills: Key to Work and Life Competencies at the Threshold of the New Industrial Revolution" published by TÜSİAD in 2019, it is stated that it is crucial for people to have social-emotional skills in business life (TÜSİAD, 2019). Thus, it is seen that social-emotional learning is essential for career success (Özdemir & Bacanlı, 2020; Paolini, 2020). The development of social-emotional learning also makes it easier for students to cope with the problems they encounter at school or in daily life (Yeager, 2017).

In the study conducted by Aygün and Taşkın (2016), the researchers reported that pre-service teachers have found social-emotional learning important, but they have also emphasized their deficiencies. Similarly, Waajida et al. (2013) also reported that pre-service teachers had wanted to receive more training to further improve their knowledge about SEL. Bayram (2022) also recommends the need for further training for the development of teachers' social-emotional learning skills. In the OECD social-emotional skills research announced by the Ministry of National Education, it was recommended to support students' social emotional skills and to provide training for these skills to teachers of other subjects in schools (MEB, 2021). Examining what roles and duties teachers undertake to support students of 10-13 years old age group socially and emotionally in the coding courses will help information technology teachers to understand how they can support their students. However, social and emotional learning, which has such vital contributions, cannot be allocated enough time in schools and can be neglected (Türnüklü, 2004). In addition to these, the social studies course curriculum was examined by Aygün (2019), and the Turkish language curriculum was examined in terms of social-emotional learning by Aygün and Taşkın (2021). It was observed that social-emotional learning is included in the curriculum, but there are deficiencies to be addressed (Aygün, 2019; Aygün & Taşkın, 2021). The deficiency here can be eliminated with after-school environments, and thus, students' social-emotional skills can be supported (Durlak et al., 2010; The National Afterschool Association,

2019). Özmen and Altun (2014) investigated the difficulties of students in coding education and the reasons behind them. Debugging, and developing a strategy for problem-solving are stated as difficulties. It is thought that it will be easier to overcome these difficulties by supporting social-emotional learning. Because social-emotional learning has positive effects when integrated with the educational environment, such as improving problem-solving skills (Green et al., 2019) and increasing academic achievement (Durlak et al., 2011; Elias et al., 1997; MEB, 2021; Smith & Low, 2013). In addition, not repeating and not doing enough practice were stated among the reasons behind the difficulties (Özmen & Altun, 2014). After-school coding courses provide the opportunity to repeat the topics and make more applications (Canlı, 2019; Er Türküresin, 2018; Kozikoğlu & Özcanlı, 2020; Nartgün & Dilekçi, 2016). Due to these opportunities, it is thought that it will be easier to overcome these reasons with after-school coding courses that support social-emotional learning.

In summary, after-school courses positively contribute to education, such as increasing understanding of concepts and improving performance. Today, the importance of social-emotional learning is increasing, but schools are insufficient in this regard. In addition, these deficiencies can be eliminated with after-school courses. At this point, teachers come into play. And we need to explore their roles and responsibilities by asking what roles teachers take in after-school coding courses, and what they do to fulfill these roles. Therefore, this study aims to determine the role and duty of the teacher in after-school coding educational activities. For this purpose, the roles and duties undertaken by the teachers in the coding education activities carried out after school will be examined within the framework of social-emotional learning, and an answer will be sought.

Method

Research Design

This study was designed as a case study, a qualitative research approach. A case study is stated by Yin (2009) as a preferred design if the research will be conducted in its natural environment or if there will be no effect on the environment of the study. According to Creswell (2007), a limited subject is examined in depth in the case study. A case study is a research design that is generally used to examine a small case, phenomenon, or event in depth. Unlike studies based on the manipulation of conditions such as experimental research, case study aims to examine the phenomena in their natural environment and to reveal what happened (Yıldırım & Şimşek, 2018). In this study, it is aimed to carry out and analyze the after-school coding lessons in their natural environment in-depth.

Research Context

The class size in schools where the research is conducted is approximately 25 students in three schools and 35 students in four schools. At the 5th and 6th grade levels, there are two classes in one school for each level, and the other schools have 5-7 classes. A total of approximately 20 students were in courses at each school for each level of 5^{th} and 6^{th}-grade courses separately. The coding courses were given to students aged 11-13 in 5th and 6th grades, and they were held for two lessons per week (40+40 minutes). Students attended these courses after completing seven 40-minute lessons between 8:30 and 15:30 as formal education. Block-based coding has been taught in coding courses. Courses have been conducted in information

technology classrooms. There are desktop computers and interactive whiteboards in the information technologies classroom where courses have been held in schools.

Study Group

The determination of the study group consisted of two stages. The first is the choice of the province, and the second is the choice of the teachers. First of all, the selected city was preferred for easy access to the researcher. Because it provides convenience in terms of time. Purposeful sampling was used in teacher selection, which is the second stage. There are more than 130 information technology teachers in the selected city. Seven teachers were invited to participate in this study. A purposeful sampling method was used by selecting the study group from the information technology teachers who had been given after-school coding courses. Professional and course experiences of seven teachers in the study group are presented in Table 1. The real names of the teachers are not given, but pseudonyms are used.

Table 1

Characteristics of the Study Group

Participant nickname	Teaching experience (year)	After-school course experience (year)
Tayfun	20	4
Levent	18	4
Necdet	16	3
Mahmut	14	3
Remzi	14	4
Ali	15	3
Hakan	17	2

Data Collection Process

In 2020-2021, 7 face-to-face interviews (f2f) and 2 focus group interviews (fg) were conducted online(O). Face-to-face interviews lasted between 40-70 minutes. Focus group interviews were held at 95 and 75 minutes. The interviews were audio recorded. Transcripts were prepared from the audio recordings. A data set consisting of 65 pages and 29055 words was obtained. The study group works in different schools. One-on-one interviews were held face-to-face with the teachers when the teachers were convenient. Focus group interviews were held online when the participants were available.

Limitations

This study is limited to coding courses. In addition, this study was carried out only with teachers working in one city. For coding education, after-school courses, courses given by private institutions, experiment workshops or do-it-yourself workshops, etc. are counted as extracurricular activities. In this study, from these activities, only after-school courses have been examined.

Data Analysis

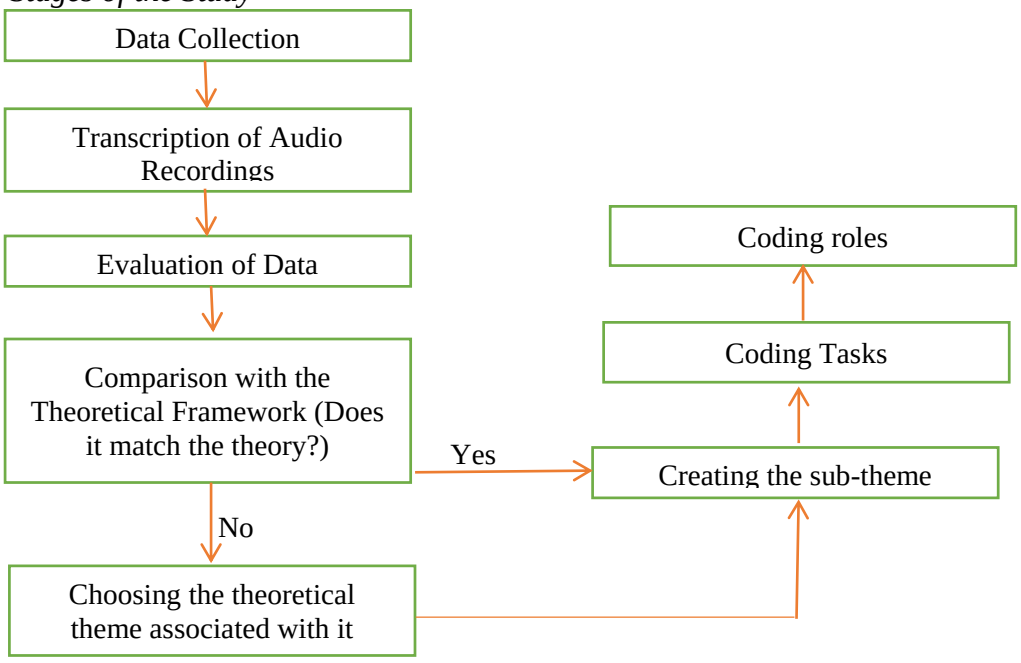
Content and frame analysis were performed on the obtained data. The primary purpose of content analysis is to reach concepts and relationships that can explain the obtained data. It is necessary to conceptualize the obtained data first, then organize it according to these concepts, and finally determine the themes that explain the data (Yıldırım & Şimşek, 2018). Analyzes were

performed using the Nvivo program. In addition, since the inductive and deductive approach (hybrid approach) is used here, frame analysis was also used. Frame analysis provides the explanation and summary of the data obtained as a hybrid (Goldsmith, 2021). Frame analysis is used in studies that obtain data on similar topics. Generally, frame analysis is applied in theoretical data analysis. In frame analysis, an analytic frame is created based on the theoretical basis and used this frame in the study. (Gale et al., 2013; Goldsmith, 2021). In frame analysis, different from content analysis, a thematic and comparative analysis is performed (Goldsmith, 2021). Comparisons were made with the sources that offered suggestions for integrating social-emotional learning. While comparing the obtained data with the theoretical framework, framework analysis was performed.

Social-emotional learning is defined by Collaborative for Academic, Social, and Emotional Learning (CASEL) as 3 themes and 5 related titles. Theme 1 consists of relationship skills and social awareness, theme 2 consists of responsible decision-making, and theme 3 consists of self-management and self-awareness. First of all, studies explaining what teachers can do about each of these five titles in the literature were examined and a coding framework was obtained by creating lists for each title. While the deductive approach was applied for the codings made using this theoretical framework, the inductive approach was applied for additional codings (for example if there is no match theoretical framework, it is created as the sub-theme). In this way, the hybrid approach was used. Figure 1 shows the stages of the study.

Figure 1

Stages of the Study



First, the transcript quotation was compared with the framework for each dimension of social-emotional learning. If there is a match, it has been taken to the relevant title (for example, as seen in Table 2, the sample statement is under the heading of relationship skills). For each different matched item, codes for sub-themes were created using the process coding technique, which focuses on the actions in the transcripts (for example, students' process of working

together). If there is no match, first, it is decided which of the theoretical titles it is related to. Then, using the process coding technique, codes were created for the relevant quotation (for example, noticing emotions). Afterward, the roles of each sub-theme and the duties of the roles were coded. While coding the duties, codes were created using by in vivo technique which benefited from the words used, and the process coding technique which focused on actions. While coding the roles, descriptive coding techniques and frame analysis were used. For each different role, one title is used, such as observer. Finally, the main themes were created. Social-emotional learning is a broad theory consisting of three themes and five titles. The data obtained fit some of the items of this theory but not every item. The three themes here were coded as peer relations, self-regulation, and task consciousness by using the deductive approach and descriptive coding technique.

Three coding techniques were utilized in this study. While the processing technique is used to code situations related to actions (for example, working together), the in vivo technique is used when coding is done by using the exact words of the people (for example, communicating with the students to determine the problem), and the descriptive technique is used when a word or name is chosen to summarize the grouped data (for example, observer role).

Table 2

Sample of Coding Matching with the Theoretical Framework

Theme	Theoretical title	Indicators suggested in the literature	Sample statement
Peer relationships	Relationship skills	Support students as needed while working on conflict.	"… if the dominant characters are oppressing their friends when there is a problem, a little intervention, direction or maybe drawing aside and talk one-on-one may sometimes be necessary" Hakan, Interview: fg
Self-regulation	Self-awareness	Encourage risk-taking by creating a classroom atmosphere where making mistakes is expected. Allow corrections and regulations.	"…families generally try to direct the student to be perfect, what happens if I make a mistake, the child asks before making a mistake. They are informed that making mistakes is bad. However, it is the best learning method" Ali, Interview: f2f
Task consciousness	Responsible decision making	Follow the problem-solving steps.	"… when you present a problem, at first, the thinking time or this algorithm process takes a little longer, but after a while, they learn to extract the algorithm of the problem you have given directly, in a faster way, and can immediately sort it and then put it into practice" Mahmut, Interview: f2f

fg: focus group interview, f2f: face-to-face interview

Jaccard analysis was conducted to see whether the data were suitable for the themes created or not and whether the overlapping expressions were meaningful. Jaccard analysis

produces a value between 0 and 1, indicating proximity and distance. As it gets closer to zero, it is concluded that the expressions within these themes do not overlap with each other, and as it gets closer to one, they are similar to each other. Jaccard analysis is one of the word similarity analysis methods. It makes comparisons according to word similarity, presence of words, and frequency of use. It helps to identify similarities or differences. The Jaccard coefficient is also called the similarity ratio (Altınok, 2019; QSR International, 2021). In this study, the Jaccard coefficient was calculated using the Nvivo program.

Validity, Reliability, and Credibility

Validity is the researcher's observation of the phenomenon in question as it is and as impartially as possible (Yıldırım & Şimşek, 2018). Validity can be increased by using a theoretical framework in studies (Yıldırım & Şimşek, 2018). In this study, the validity was increased with the theoretical framework by using the five main topics of social-emotional learning specified by CASEL. It is stated by Kruger (1994) that validity can be increased by ensuring the homogeneity of the groups with purposive sampling (as cited in Freeman, 2006). In this study, the validity was increased by working with participants who showed similar characteristics with purposive sampling. In addition, validity can be supported by collecting depth-oriented data (Yıldırım & Şimşek, 2018). For this purpose, focus group interviews were conducted with the participants who were interviewed one-on-one.

For reliability, coding was administered by a different person and the inter-coder reliability between the coders was calculated. The inter-coder reliability shows internal consistency. The inter-coder reliability was calculated as 0.916. It is stated by Yıldırım and Şimşek (2018) that reliability can be increased by providing a better understanding of the varying features of the event with purposive sampling. In this study, reliability was supported by purposive sampling. In addition, Jaccard analysis, which is one of the similarity tests, was performed to support reliability.

Credibility has an important place in qualitative studies. Various strategies are used to support credibility. For this purpose, in this study, both individual interviews and focus group interviews were used to interact with the same participants. Participant confirmation is another strategy used. After the individual interviews were over, the themes that emerged were briefly explained and the confirmation of the participants was applied in this way. In addition, several key themes were validated in the focus group meeting to ensure participant confirmation. Credibility was supported by participant confirmation (Creswell, 2014; Yıldırım & Şimşek, 2018).

As a result of the analyzes made on the obtained data, the roles and duties of the teachers were gathered under three main themes. These themes are peer relationships, self-regulation, and task consciousness. The differentiation of these themes was examined by Jaccard analysis, and differentiation was noticed (Table 3).

Table 3

Jaccard Analysis Results of Themes

Code A	Code B	Jaccard coefficient
Peer relationships	Self-regulation	0.1994
Task consciousness	Peer relationships	0.1106
Self-regulation	Task consciousness	0.0853

Findings

Social-emotional learning is addressed by CASEL in three themes and five sub-dimensions as relationship skills, social awareness, responsible decision-making, self-management, and self-awareness. Table 4 shows the main and sub-themes. In the following sections, each theme, its sub-themes, and related analysis processes will be explained.

Table 4

Main and Sub-themes

Peer Relationships	Relationship skills
	Social awareness
Self-regulation	Self-management
	Self-awareness
Task consciousness	Responsible decision making

Peer Relationships

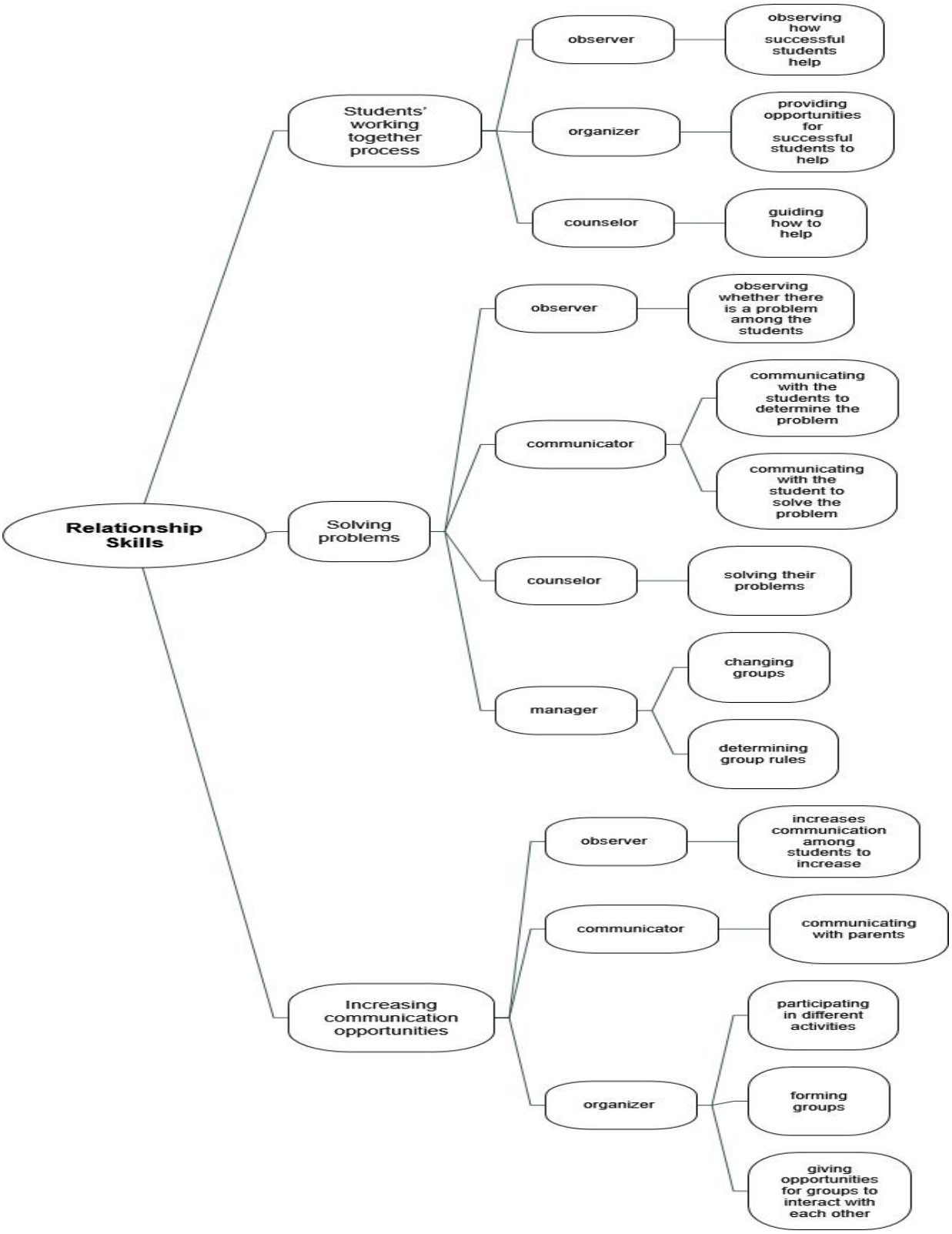
Peer relationships are theoretically based on relationship skills and social awareness. In this study, peer relations include students' intimacy and interactions with their peers in the course environment.

Relationship Skills

The roles and duties in this sub-theme are grouped under three sub-themes: students' working together process, increasing communication opportunities, and solving problems. The roles and duties of these sub-themes are shown in Figure 2.

Figure 2

The Roles and Duties of Relationship Skills Sub-themes



The first of these is the students' process of working together. It is seen that teachers assume the role of an organizer with the duty of providing opportunities for successful students to help, the role of a counselor with the duty of guiding how to help, and the role of an observer with the duty of observing how successful students help. For the role of the organizer, Ali, for example, states "I direct good students to the ones who can't succeed with the logic of helping our friends as if I were a counselor in the classroom, with the logic of sharing the information and increasing as we share it" (O: FG2); Mahmut notices "when I say, 'You can help your friends if you finish first', they also feel a little more comfortable with themselves. They are proud" (O: FG2)". On the other hand, Tayfun expresses how they act as a counselor with the words "Let those who have finished the study go and see others', and check whose work is better?" (F2F:I2). On the other hand, one participant (Necdet) seemed to avoid doing such a practice with successful students because the students may feel uncomfortable getting help.

The second of the sub-themes is to increase communication opportunities. It is seen that teachers take on the role of an observer with the duty of observing what increases communication among students to increase communication, the role of an organizer with the duty of forming groups, giving opportunities for groups to interact with each other and participating in different activities, and the role of communicator with the duty of communicating with parents. Necdet informs, "Students are free to research on the Internet, first of all, they do preliminary research on their projects, and while searching, they exchange ideas in the group" (F2F: I3), and Levent states, "Two people sitting at the same computer can say, 'we can do it this way, or we can do it the other way'. Another can come up with another idea" (F2F: I1). As a result of the inferences made here, it is seen that the teachers observe the students. For the role of the organizer, Levent says "I tell them to help each other as a class" (F2F: I1), Tayfun says "they can walk around the class freely and get information, they can share information about the lesson and they can intervene" (F2F: I2) and Remzi "When they participate in the competition, they may be the last, it is a big risk" (O: FG2). Levent describes the duty of providing the opportunity to participate in different activities "I said, 'They can participate in Afyon Coding competition if they want, and we participated in the competition with five groups, it was good, the children learned different things, it helped them socialize, and again, as something different, we participated in the TÜBİTAK science fair activities prepared by other friends" (O:FG1).

The third of the sub-themes is solving problems in peer relationships. It is seen that teachers take on the role of an observer with the duty of observing whether there is a problem among the students, the role of communicator with the duty of communicating with the students to determine the problem and communicating with the student to solve the problem, the role of a counselor with the duty of solving their problems, the role of the manager with the duty of determining group rules and changing groups. For example, for the role of communicator, Hakan, expresses it with the words "one student did not attend the class, he seemed bored and when I asked what we can do, he was saying 'I don't want to sit with my friends. They don't let me participate" (F2F:G4). The group rules are determined by Tayfun with the words "I say 'in the last scenario, copy two different games, save them differently on the main scenario we created, change the names', I say 'everyone should do it individually, Ahmet's scenario and Mehmet's scenario should be different', but we have those problems (F2F:G2)" and Hakan notices, "I say 'Let him use it for one lesson, then you can use it in the next lessons', they say 'okay' "(F2F:G4). As for how they change groups, Levent notices, "There are students who can't get along because of a problem before if that's the case, they hardly get along, first they both don't do anything on

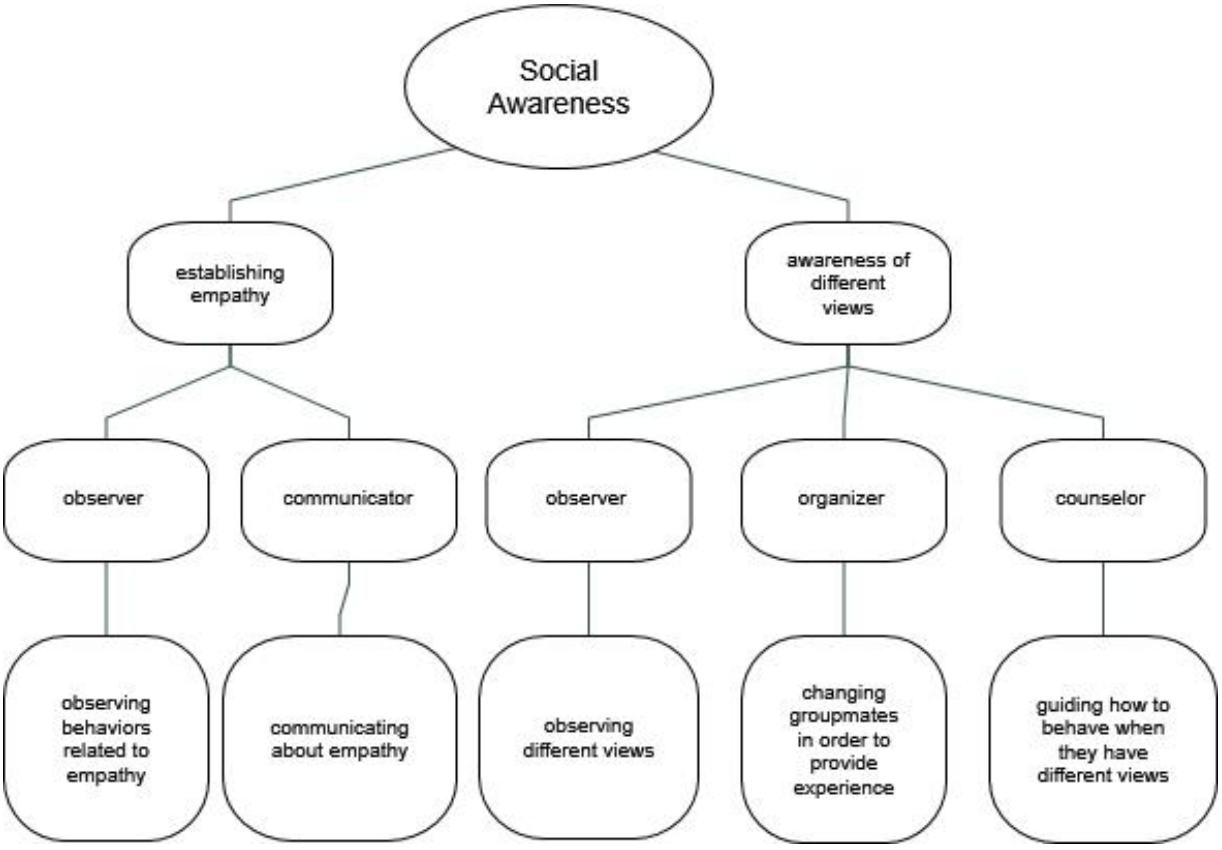
the computer, they wait, if they do this for 3-4 weeks, I'll change their place" (O:FG1) and Tayfun says that "when a student enters a constant discussion environment, we feel the need to intervene, we pull them to someone's side, there is such an alternative, or we send them both in turns to the slow-running machine with some problems (F2F:G2)".

Social Awareness

Social awareness refers to understanding the perspectives of others and empathizing with them, including those from different backgrounds and cultures. Sub-themes of establishing empathy and awareness of different views emerged in our study. The roles and duties of these sub-themes are shown in Figure 3.

Figure 3

The Roles and Duties of Social Awareness Sub-themes



The first of the sub-themes is establishing empathy. It is seen that teachers take on the role of an observer with the duty of observing behaviors related to empathy and the role of communicator with the duty of communicating about empathy. Necdet observed that "As a result of a wrong project, the group that made the wrong project sometimes participates in the laughter in the classroom, sometimes they can be seriously disturbed by these laughs. There are times that they do not even want to present the project again just because their friends will laugh again. (F2F:G3)". For the communicator role Tayfun mentions "I explain there, how their friends feel when we do this, but there is only a short period of regret, only a short period (F2F:G2)" and

Necdet "I tried to explain to other students that what they did was wrong by talking about our differences and emphasizing a different physical feature of each of them when the student was not in the classroom. Especially during adolescence, students can be more sensitive and touchier, so I think we need to explain the concept of empathy to students better" (F2F:G3).

The second of the sub-themes is the awareness of different views. It is seen that teachers take on the role of an observer with the duty of observing different views, the role of an organizer with the duty of changing groupmates to provide experience, and the role of counselor with the duty of guiding how to behave when they have different views. For the role of the organizer, Levent says "I see the benefit of changing groups frequently in the courses, frankly, I try to make people realize what it would be like to work with different people instead of the same people all the time" (O:FG1) and Necdet "I change groups very often, one student with another student, so they fall in the same group maybe three times in the semester. They learn how it feels working with different people" (O:FG1). Remzi, on the other hand, expresses the role of the counselor as "Do you think this way? yes, you do, but why does your friend think differently, question it yourself" (F2F: G5).

Self-regulation

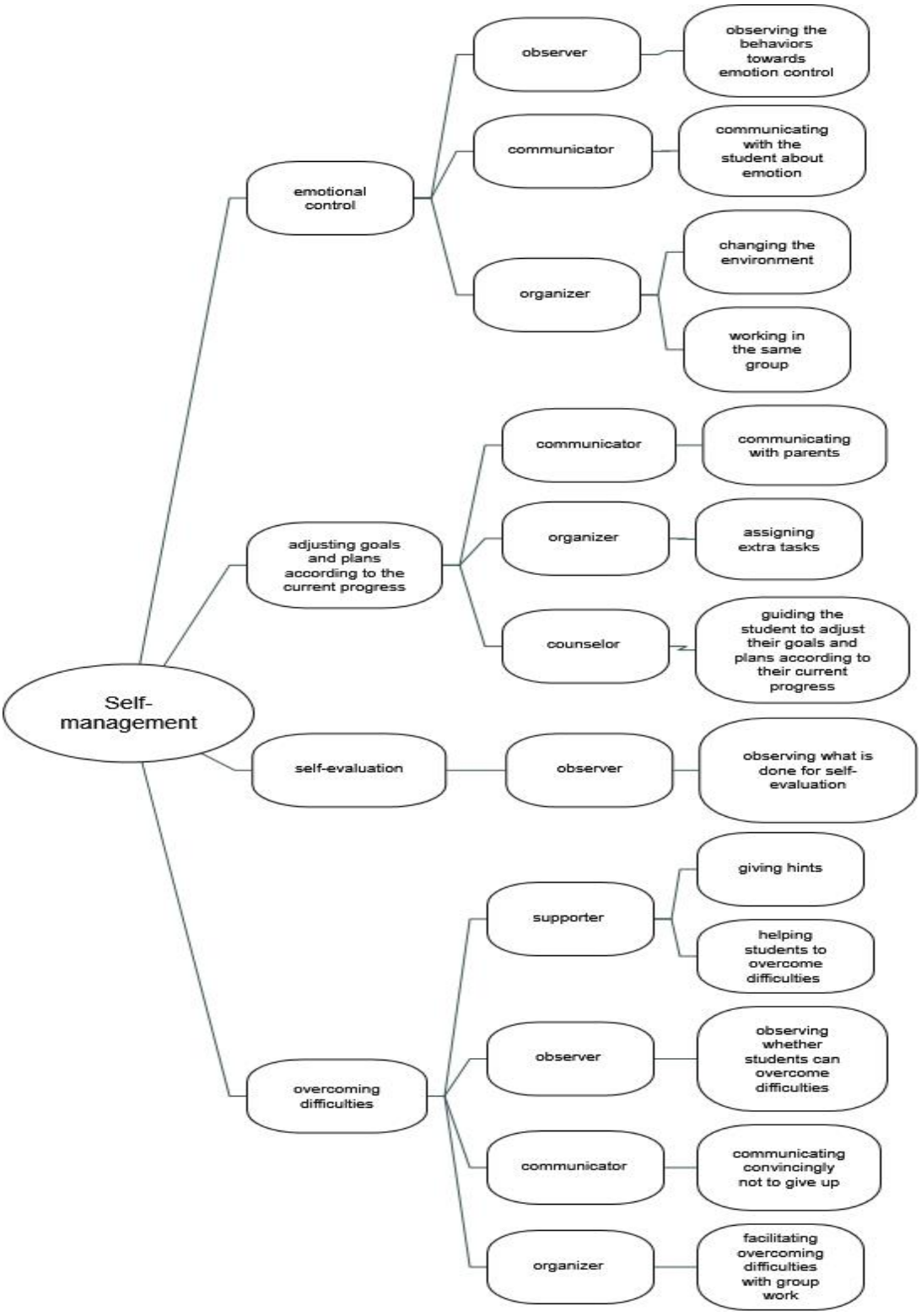
Self-regulation is based on the self-management and self-awareness dimensions of social-emotional learning. Self-regulation refers to students' ability to overcome the problems they encounter while trying to reach their goals, their efforts to control these problems, and their ability to develop new strategies to rearrange these problems.

Self-management

Self-management consists of four sub-themes: emotional control, adjusting goals and plans according to the current progress, self-evaluation, and overcoming difficulties. The roles and duties of these sub-themes are shown in Figure 4.

Figure 4

The Roles and Duties of Self-management Sub-themes



The first of the sub-themes is emotion control. In this sub-theme, emotional states in which the student or their environment can be harmed, depending on the emotion he experiences, are discussed. It is seen that the teacher plays the role of an observer with the duty of observing the behaviors towards emotion control, the role of communicator with the duty of communicating with the student about emotion, the role of the organizer with the duty of changing the environment and working in the same group. Ali describes his role as a communicator with the words "I told him that he has the knowledge to do it, he is at the same level with his other friends, he just needs to focus (F2F:G7)" and Levent says "I tell them that what they are doing is wrong, I talk to them (F2F:G1)". Tayfun exemplifies the role of the organizer with the words "Although not constantly, I send him to a different place from the classroom, such as to get something from the canteen, but only three or five times during the term for different extra jobs (O:FG1)" and Ali said, "I have had students who were jealous, I put the jealous student and them in the same group. They work together, this works too" (O:FG2).

The second of the sub-themes is adjusting goals and plans according to the current progress. It is seen that teachers take on the role of communicator with communicating with parents, the role of an organizer with the duty of assigning extra duties, and the role of a counselor with the duty of guiding the student to adjust their goals and plans according to their current progress. Tayfun explains the role of the organizer with the words "For example, for scoring, I give points, you may give a penalty, add a separate character to give that penalty, make an extra change in your scene, change your finale or the beginning scene, I add them and I tell everyone alternative ways" (F2F:G2) and Mahmut "I may ask them to draw the carrot themselves. Or wait, wouldn't it be better if we put a level like this in this game, and I'm waiting for them to go to the next level" (F2F:G6). For the role of the counselor Levent states "I am also a consultant, the student comes to me and asks 'there is a competition here, let's join together, where can I get support, where can I learn?'" (O:FG1) and Tayfun "they do different or similar work at home and add appropriate imagination and bring it to the lesson, if there is not enough time in the lesson, the child increases his preoccupation with him, inevitably, he becomes busy with the process until next week. If they can't succeed, they phone me. They can use external sources such as the internet and bring the project" (O:FG1).

The third of the sub-themes is self-evaluation. It is seen that teachers undertake the role of an observer with the duty of observing what is done for self-evaluation. For the role of the observer Tayfun says, "This work is appreciated by the class when we reflect it on the screen. He grades himself. I am not as good as Ahmet, but he can say that I did the second best in the class, he puts himself in a rank" (F2F:G2) and Hakan says, "They control their progress on the project themselves. I already give the evaluation criteria. For example, those who draw the maze game describe it as ten points, ten points without touching anywhere in the maze" (F2:G4).

The last one is overcoming difficulties. It is seen that teachers take on the role of an observer with the duty of observing whether students can overcome difficulties, the role of supporter with the duty of helping students to overcome difficulties and giving hints, the role of an organizer with the duty of facilitating overcoming difficulties with group work, and the role of communicator with the duty of communicating convincingly not to give up. For his supporting role, Ali said, "For example, let's take a look at the codes we moved up and down, can there be any mistakes in those codes? In this way, I try to direct him as if he will find the mistake himself (O:FG2)", Levent said, "Sometimes I have to tell about the topics that they have not seen in other lessons because it is sometimes difficult, for example, I had to explain topics in mathematics. For

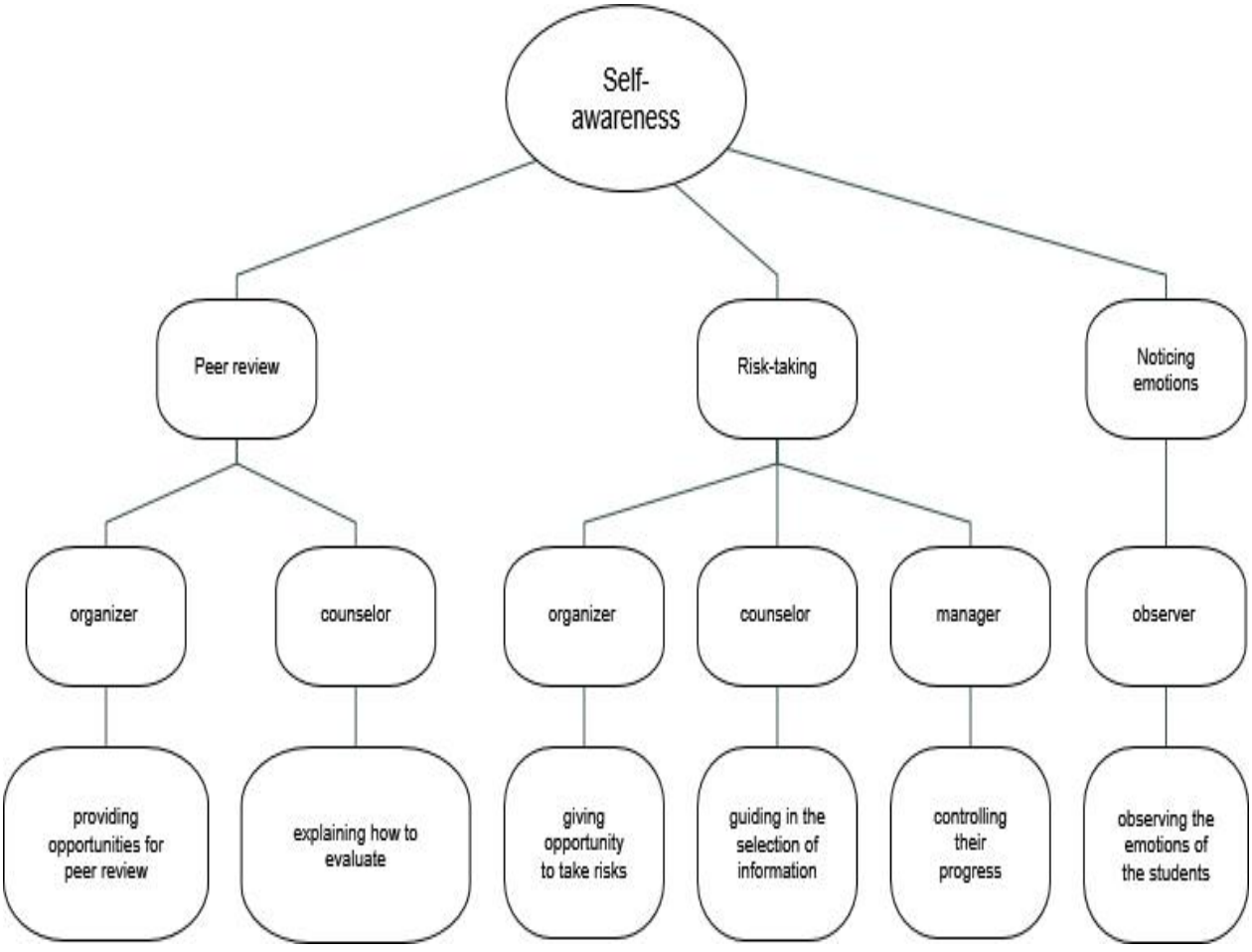
example, he needs to know the movement in the X-Y plane" (F2F:G1) and Mahmut says "he copes somehow, in the first try, he expects a little more support from me while doing the same application for the second time he understands the logic and the support decreases a little more in the third" (F2F: G6). For his role as the organizer, Mahmut says, "When a good student and a bad student are together, mutual disagreements disappear. While establishing the groups, I try to put them with a student at a better level" (O:FG2) and Necdet "The child who will be left behind in the activity is known, frankly, I attach great importance to group work, I do not set up fixed groups almost every week. I am making changes in groups, here I am setting up a group with a student who knows and does not know" (O:FG1).

Self-awareness

It is gathered under the sub-themes of the roles and duties of the teacher, peer review, risk-taking, and noticing emotions. The roles and duties of these sub-themes are shown in Figure 5.

Figure 5

The Roles and Duties of Self-awareness Sub-themes



The first sub-theme is peer review. It is seen that teachers take on the role of an organizer with the duty of providing opportunities for peer review and the role of a counselor by explaining how to evaluate. For the role of the organizer, Levent says “play the game prepared by the other. Inspect what aspects are the same, and what are different. If it doesn't work or if it works differently, why isn't it working? they usually see it on someone else's computer and say I want to add it, they add it to their computer or ask how I can add it (F2F:G1)” and Tayfun with the words “we mostly did it in Scratch in 6th grade” (F2F:G2). Tayfun explains his role as a counselor with the words “We were reflecting the evaluation chart on the board, everyone was changing to each other's tables, and everyone was checking each other and scoring” (F2F:G2).

The second sub-theme is risk-taking. It is seen that the teacher assumes the role of an organizer with the duty of allowing taking risks, the role of a counselor with the duty of guiding in the selection of information, and the role of a manager with the duty of controlling their progress. For the role of the organizer, Remzi says “I give the students an example. I'll tell you the subject, I'll tell you what to do. We explain how to make these angles of 60 degrees 90 degrees, how to calculate them, and on this, children try many times and try to solve problems with codes” (F2F: G5), Levent says, “I don't show the codes, they do it according to what they see. When I show the screen of the game, for example, ball catching, an object ball will fall from top to bottom. The student thinks about it and tries to solve it” (F2F:G1), Ali says “The student asks what will happen if they make mistakes. They are informed that making a mistake is a bad thing. However, an error is the best learning method. here the child learns by making mistakes (O:FG2)”. For the role of counselor, Necdet notices that “it is necessary to provide guidance and to intervene for the student to reach the right information. I even give some keywords in the project instructions that they need to search” (F2F:G3) and Levent “I created a coding library. From time to time, I give the children the opportunity to examine the books there” (O:FG1).

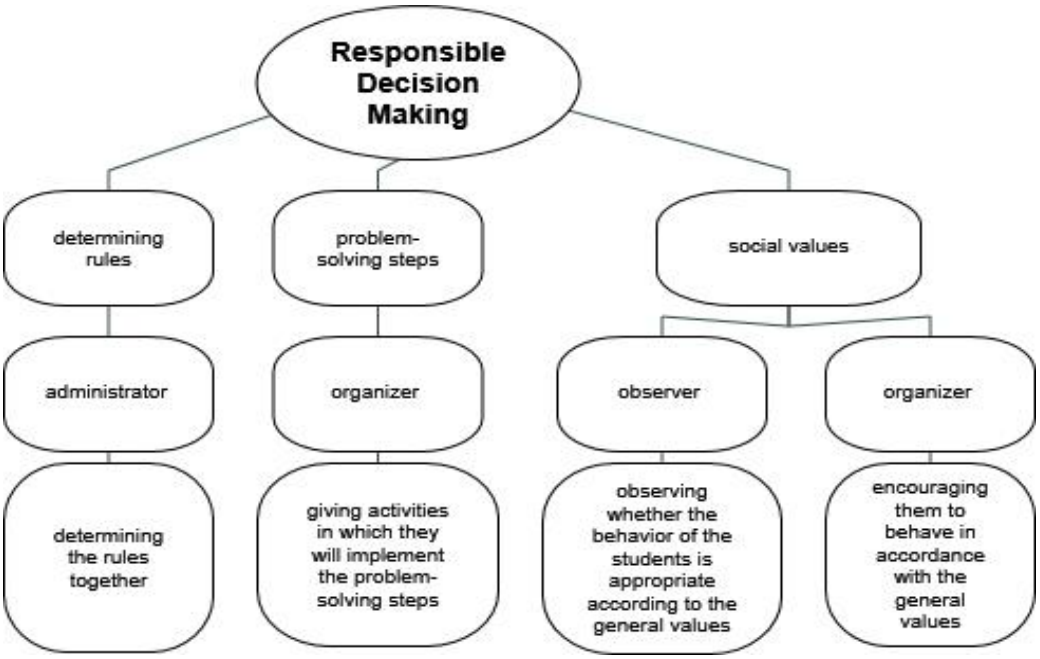
The third sub-theme is noticing emotions. In this theme, it is seen that teachers take on the role of an observer with the duty of observing the emotions of the students. Remzi notices "I can say it's cheerful when they succeed, you have to see their screams” (F2F:G5) and Necdet describes a situation he observed "It's not hard to read the worry and anxiety in the eyes of the student who realizes that his mouse was working 1 minute ago but not working anymore. I observe such feelings when students damage the equipment” (F2F:G3).

Duty Consciousness - Responsible Decision Making

Task consciousness is based on the responsible decision-making dimension of social-emotional learning. In this work, task consciousness includes making constructive choices about social interactions and showing appropriate behavior based on ethical standards and social norms. It is divided into three sub-themes as social values, problem-solving steps, and determining rules. The roles and duties of these sub-themes are shown in Figure 6.

Figure 6

The Roles and Duties of Responsible Decision-Making Sub-themes



In the first of the sub-themes, behaving by the social values, it is seen that the teachers take the role of the observer with the duty of observing whether the behavior of the students is appropriate according to the general values, and the role of the organizer with the duty of encouraging them to behave following the general values. For the role of the observer, Tayfun said, “We had Kahoot activities. What this is doing is creating a competition within the class. When we look at it morally, by cheating, a student loses another value to be the first in the competition” (F2F:G2) and Levent expresses with the words "This child whose parents are divorced, sits quietly next to the other student, the other does it, he waits, he does not attend the lesson, he does not take any responsibility". As for the role of the organizer, Levent expresses as follows: "I am giving responsibility. Here is what you will do, I will check it soon, I say I will give you a book as a gift if you finish it. I give them a reward when they finish the application” (F2F:G1).

The second sub-theme is the application of problem-solving steps. It is seen that the teachers take on the role of an organizer with the duty of giving activities in which they will implement the problem-solving steps. For this role, Mahmut says, “I am giving a problem and I want them to draw the algorithm of the problem first. We can list them immediately and then apply them” (O:FG2) and Necdet “I leave some keywords and emphasize them. Students learn the basic concepts by searching for these contents on the internet and apply these learnings in their projects by combining them through synthesis. In other words, I take care to direct them to the steps of scientific processing: determining the problem, collecting data about the problem, drawing conclusions from the data, bringing the results together, and reaching a new result” (F2F:G3).

The third sub-theme is determining the rules. It is seen that the teacher assumes the role of administrator with the duty of determining the rules together. Two participants determine the rules together. While Levent says "we prepare the rules together (F2F:G1)", Necdet gives an example of the rules they set together: "For example, when we are doing a course after school, there is a break now and then. The students made the rule not to go out during the break. When a student said that he was bored, he could go for five minutes and get some fresh air, regardless of the bell. You know, we made such a rule with a proposal from students. There were no students who abused either, that five-minute break went away" (O:FG1).

Peer relations, self-regulation, and duty consciousness themes and sub-themes from these themes emerged from the data obtained. The social and emotional learning components on which each theme is based are shown in Figure 7. It has been observed that teachers take on the roles of observer, organizer, communicator, counselor, administrator, and supporter. The items which express these roles are presented in Table 5.

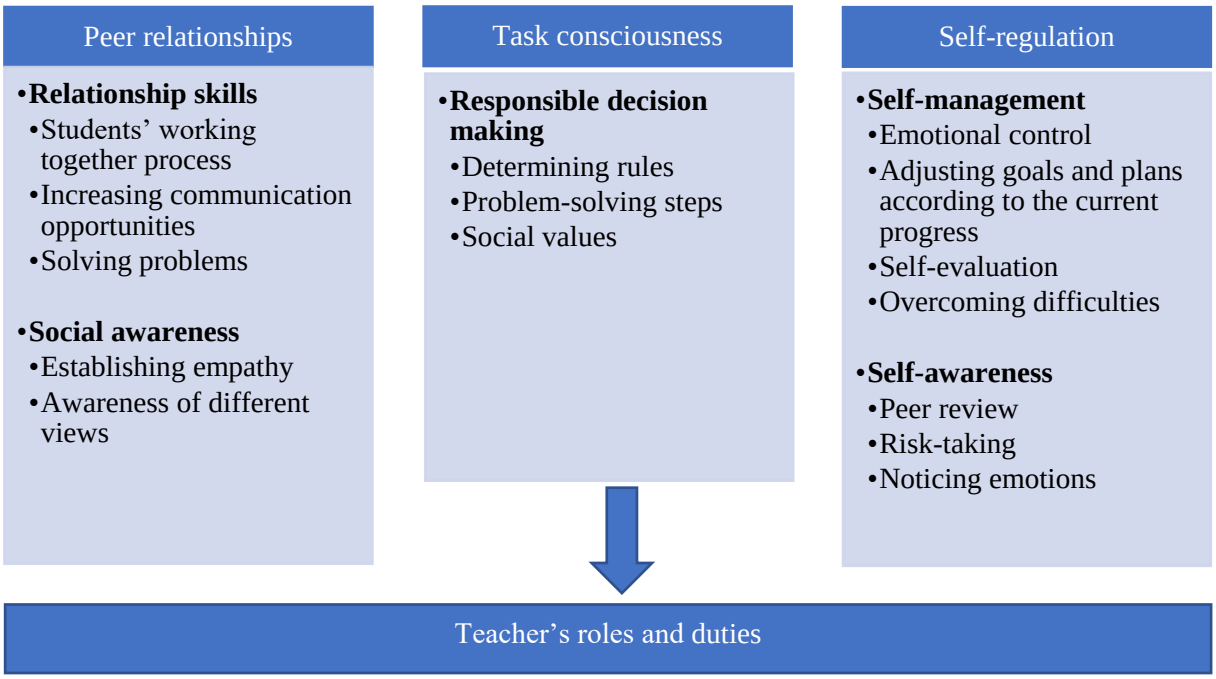
Table 5

Roles and Their Explanations

Role	Explanation
Supporter	Helping students one-on-one in their studies, individual attention
Observer	Monitoring, observing student behavior or course environment
Communicator	One-to-one communication with the parent or student
Organizer	Organizing duties such as the classroom environment, arranging activities, explaining activity rules, assigning duties to the students.
Counselor	Being a guide on how to do something
Administrator	Managerial duties such as determining the class rules, choosing the course participants, seating arrangement, etc.

Figure 7

Themes that Emerged in Social-Emotional Learning in After-School Coding Activities



Discussion

When the literature is examined, it is seen that the results of this study are supported. Sarıoğlan and Küçüközer (2016) asked the opinions of pre-service teachers about the roles of teachers in out-of-school learning environments and it was observed that determining the content with the counselor role was the most specified role. In the thesis study conducted by Öçal (2015), the roles of the teacher in mathematics teaching were tried to be determined and it was stated that the teacher was expected to fulfill the role of counselor the most. In the study conducted by Turanlı (2009), it is stated that students with high learning perception need more social emotional support. In this study, it was seen that the teachers took the role of a counselor. In addition, it is stated by Deniz (2000) that the teacher can effectively regulate the environment. In this study, duties related to the environment, that is, the regulation of the environment, have emerged in the duties of the organizer role.

In the after-school STEAM activity by Ardıç (2021), and in the after-school coding activity by Akçay et al. (2019), there was an emphasis on the fact that students overcome the difficulties together. On the other hand, Tosuntaş et al. (2020) support the theme of increasing the dialogue between students. Furthermore, it was concluded that interaction was provided with paired coding that the students worked together and social skills were developed (Tosuntaş et al., 2020). According to Green et al. (2019) and Coşkun (2019), training including social-emotional learning was given, which increases emotion regulation. Similar results were obtained in the experimental study conducted by De Carvalho et al. (2017) and it was stated that SEL improved

emotion regulation. Educational programs containing SEL seem to improve emotion control (Metz et al., 2013).

One of the duties of the organizer role in this study is to form groups. This result supports the statement by Akpınar and Ergin (2005) that group work improves peer relations. In addition, in the study conducted by Green et al. (2019), it was concluded that social-emotional learning increases friendship skills. Tosuntaş et al. (2020) findings also support the findings reported in this study in that debugging (one of the coding processes) is facilitated by paired coding and this action has been facilitated through peer review.

When the roles and duties in this study in after-school courses are compared with formal education, there are differences. One of the most fulfilled roles of teachers in formal education is the role of information provider (Bek, 2007; Çakmak, 2011; Göçer, 2014). Since after-school courses are compatible with the curriculum in formal education, instead of the teacher's role of providing information, they play a guiding role for students to find the necessary information and a supportive role when they have difficulties. In formal education, the teacher is expected to fulfill the role of counselor or supporter (Göçer, 2014). However, while teachers seem to have few opportunities in formal education at this point, after-school courses offer more opportunities. Another prominent role of the teacher in formal education is classroom management (Bek, 2007; Göçer, 2014; Yengin et al., 2015). While teachers do not assume such a role in after-school courses, they sometimes make individual interventions with the role of manager. In addition, in the activities in after-school coding courses, individuality comes to the fore more compared to formal education. At this point, it is important how much the teacher knows the student to get the desired result. On the other hand, in the study conducted by Arslan et al. (2019) on non-formal education, it is stated that EFL teachers need training in classroom management.

Recommendations

For future research, it can be recommended to examine the roles and duties performed from a frame of various variables related to the environmental characteristics, and student and teacher characteristics. By examining the roles and duties of teachers in schools within the framework of social emotional learning, deficiencies can be determined. Another suggestion is to research the roles and duties of teachers in other after-school courses such as science and social studies within the framework of social-emotional learning. Thus, the number of resources available to teachers who want to integrate social-emotional learning can be increased, and they can see sample practices in their branches.

Studies can be carried out for the next level of roles and duties (teacher’s skills and competencies). It is recommended to carry out studies to determine the skills and competencies that teachers should have in after-school coding courses according to the roles and duties determined in this study.

It is recommended that teachers who provide coding training in courses benefit from the roles and duties revealed in this study. Thus, it is thought that they can contribute to their student's social and emotional learning. In-service training can be provided for the roles and duties of teachers in after-school courses. Groups or activities can be organized where teachers who teach after-school courses or work in social-emotional learning classes can share sample practices.

Ethics Committee Permission Information: This research was conducted with the permission of the Hacettepe University Ethics Committee, with the decision numbered 35853172-300 dated 17/04/20.

Author Conflict of Interest Information: There was no conflict of interest in this study, and no financial support was received.

Author Contribution: The authors declare that they have contributed equally to the article.

References

Abalı, B.Y., & Yazıcı, H. (2020). An Evaluation on Determining the Relation between Listening Skill and Social Emotional Learning Skill. *Eurasian Journal of Educational Research, 89*, 71-92. DOI: 10.14689/ejer.2020.89.4

Acar, E., & Vural, R. A. (2018). İlkokul öğrencilerinin devam ettiği okul sonrası eğitim programlarının okul yöneticileri ve velilerin görüşlerine göre değerlendirilmesi. *İlköğretim Online, 17*(1), 293-313. https://doi.org/10.17051/ilkonline.2018.413773

Ahmethan, N. B., & Yiğit, V. B. (2018). Müzik öğretmen adaylarının ideal müzik öğretmeni algıları. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 15*(41), 202-225. https://dergipark.org.tr/en/download/article-file/465258

Akcaoglu, M., & Koehler, M. J. (2014). Cognitive outcomes from the game-design and learning (gdl) after-school program. *Computers & Education, 75*, 72-81. https://doi.org/10.1016/j.compedu.2014.02.003

Akçay, A. O., Karahan, E., & Türk, S. (2019). Bilgi işlemsel düşünme becerileri odaklı okul sonrası kodlama sürecinde ilkokul öğrencilerinin deneyimlerinin incelenmesi. *Eskişehir Osmangazi Üniversitesi Türk Dünyası Uygulama ve Araştırma Merkezi Eğitim Dergisi, 4*(2), 38-50. https://dergipark.org.tr/en/download/article-file/846356

Akpınar, E., & Ergin, Ö. (2005). Yapılandırmacı kuramda fen öğretmeninin rolü. *İlköğretim Online, 4*(2), 55-64. https://dergipark.org.tr/en/download/article-file/91077

Aksoy, Ö. N. (2020). Ergenlerin sosyal duygusal öğrenme düzeylerinin incelenmesi. *İnsan ve Sosyal Bilimler Dergisi, 3*(1), 576-590. https://dergipark.org.tr/en/download/article-file/1120554

Altınok, Y. (2019). *Veri madenciliğinde hiyerarşik kümeleme algoritmalarının uygulamalı karşılaştırılması* [Unpublished master thesis]. Marmara University.

Ardıç, F. (2021). *Okul sonrası öğrenme ortamlarında matematik odaklı stem etkinliğine yönelik öğrenci görüşleri.* [Unpublished master thesis]. Eskişehir Osmangazi University.

Arslan, S., Mirici, İ., & Öz, H. (2019). In-service training needs of EFL teachers in non-formal education settings. *Selçuk Üniversitesi Edebiyat Fakültesi Dergisi, 42*, 223-244. : https://doi.org/10.21497/sefad.675203

Asmalı, M., & Çelik, H. (2017). EFL teachers' conceptualizations of their roles through metaphor analysis. *Journal of Language and Linguistic Studies, 13*(2), 1-13. https://dergipark.org.tr/en/download/article-file/440750

Aygün, H. E., & Taşkın, Ç. Ş. (2016). Öğretmen adaylarının gözüyle sosyal-duygusal öğrenmenin önemi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi, 12*(1), 163-179. http://dx.doi.org/10.17860/efd.99868

Aygün, H. E. (2019). Sosyal bilgiler öğretim programının sosyal-duygusal öğrenme becerileri açısından incelenmesi. *Eğitim ve Teknoloji, 1*(1), 82-99. https://dergipark.org.tr/en/download/article-file/753875

Aygün, H. E., & Taşkın, Ç. Ş. (2021). Türkçe dersi öğretim programında sosyal-duygusal öğrenme becerilerinin kapsamının belirlenmesi. *Ankara University Journal of Faculty of Educational Sciences (JFES), 54*(1), 205-224. https://doi.org/10.30964/auebfd.797377

Baş, B., Turhan, O. & Karaca, F. (2017). Türkçe öğretiminde etkinlik stratejisi geliştirmeye yönelik bir durum tespiti: 5. sınıf Türkçe çalışma ve öğretmen kılavuz kitabı örneği. *Journal of Mother Tongue Education, 5*(4), 717-746. https://doi.org/10.16916/aded.336368

Bayram, H. (2022). Sosyal bilgiler öğretmenlerinin sosyal duygusal öğrenme becerilerinin incelenmesi. *Journal of Computer and Education Research, 10*(19), 236-258. https://doi.org/10.18009/jcer.1065975

Bek, Y. (2007). *Öğretmenin toplumsal/mesleki rolleri ve statüsü.* Trakya University, Institute of Social Sciences, Edirne. Retrieved from http://dspace.trakya.edu.tr:8080/xmlui/bitstream/handle/trakya/952/Y%C4%B1ld%C4%B1ray%20Bek.pdf?sequence=1&isAllowed=y

Büyükkarcı, K. (2009). A critical analysis of task-based learning. *Kastamonu Eğitim Dergisi, 17*(1), 313-320.

Canlı, S. (2019). Okul yöneticilerinin ve öğretmenlerin destekleme ve yetiştirme kurslarına yönelik görüşleri. *Cumhuriyet Uluslararası Eğitim Dergisi, 8*(2), 479-501. http://dx.doi.org/10.30703/cije.496769

Colardyn, D. & Bjornavold, J. (2004). Validation of formal, non-formal and informal learning: Policy and practices in EU member states. *European Journal of Education, 39* (1), 69-89. https://www.jstor.org/stable/1503751#metadata_info_tab_contents

Collie, R. J., Shapka, J. D., & Perry, N. E. (2011). Predicting teacher commitment: The impact of school climate and social–emotional learning. *Psychology in The Schools, 48*(10), 1034-1048. https://doi.org/10.1002/pits.20611

Coombs, P. H. (1989). *Formal and nonformal education: future strategies. in lifelong education for adults* (pp. 57-60). Pergamon Press.

Coskun, K. (2019). Evaluation of the socio emotional learning (SEL) activities on self-regulation skills among primary school children. *The Qualitative Report, 24*(4), 764-780.

Creswell, J. W., (2007). *Qualitative inquiry and research design: Choosing among five approaches.* Sage publications.

Creswell, J. W. (2014). *Nitel, nicel araştırma deseni ve karma yöntem yaklaşımları*. Eğiten Kitap.

Çakmak, M. (2011). Değişen öğretmen rolleri: öğretmen adaylarının düşünceleri. *Education and Science, 36*(159), 14-24.

De Carvalho, J.S., Pinto, A.M. & Marôco, J. (2017). Results of a mindfulness-based social-emotional learning program on Portuguese elementary students and teachers: A quasi-experimental study. *Mindfulness ,8*(2), 337–350. https://doi.org/10.1007/s12671-016-0603-z

Demirelli, M. A., & Barut, Y. (2020). Atılganlık eğitiminin ortaokul öğrencilerinin sosyal duygusal öğrenme becerilerine etkisi. *Yaşam Becerileri Psikoloji Dergisi, 4*(8), 173-180. DOI: 10.31461/ybpd.777410

Deniz, S. (2000). İlköğretim dönemindeki çocukların yeni davranışlar kazanmalarında tutumların öğrenilmesi ve öğretmenin rolü. *Muğla Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 1*(2), 1-5. https://dergipark.org.tr/en/download/article-file/217467

*Durlak, J. A., Weissberg, R. P., & Pachan, M. (2010). A meta-analysis of afterschool programs that seek to promote personal and social skills in children and adolescents. *American Journal of Community Psychology, 45*(3-4), 294-309. https://doi.org/10.1007/s10464-010-9300-6

*Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Eshach, H. (2007). Bridging in-school and out-of-school learning: Formal, non-formal, and informal education. *Journal of science education and technology*, 16(2), 171-190. https://doi.org/10.1007/s10956-006-9027-1

Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., Kessler, R., Schwab-Stone, M. E., Shriver, T. P. (1997). *Promoting social and emotional learning: guidelines for educators.* Association for Supervision and Curriculum Development (ASCD) Publications.

Er Türküresin, H. (2018). Destekleme ve yetiştirme kurslarının öğretmen ve öğrenci görüşlerine göre incelenmesi: Kütahya ili örneği. *Adnan Menderes Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Dergisi, 9*(2), 73-85.

Freeman, T. (2006). Best practice' in focus group research: Making sense of different views. *Journal of Advanced Nursing, 56*(5), 491-497. https://doi.org/10.1111/j.1365-2648.2006.04043.x

Gale, N.K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013) Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol, 13*(117). https://doi.org/10.1186/1471-2288-13-117

Goldsmith, L.J. (2021). Using framework analysis in applied qualitative research. *The Qualitative Report, 26*(6), 2061-2076. https://doi.org/10.46743/2160-3715/2021.5011

Good, T.L.& Brophy, J.E. (1997). *Looking in classrooms*. 7. Edition. United States: Addison-Wesley Edicational Publishers Inc.

Göçer, A. (2014). Öğretmen rolleri, öğrenci etkililiği ve eğitim kazanımları bakımından Türkçe dersi metin işleme süreci. *Milli Eğitim Dergisi, 44*(204), 167-198. https://dergipark.org.tr/en/download/article-file/441928

Göksu, İ., & Gülcü, A. (2016). Ortaokul ve liselerde uygulanan destekleme kurslarıyla ilgili öğretmen görüşleri. *Bayburt Eğitim Fakültesi Dergisi, 11*(1), 153-171. https://dergipark.org.tr/en/download/article-file/214863

Green, J. H., Passarelli, R. E., Smith-Millman, M. K., Wagers, K., Kalomiris, A. E., & Scott, M. N. (2019). A study of an adapted social–emotional learning: Small group curriculum in a school setting. *Psychology in The Schools, 56*(1), 109-125. https://doi.org/10.1002/pits.22180

Grolnick, W. S., Farkas, M. S., Sohmer, R., Michaels, S., & Valsiner, J. (2007). Facilitating motivation in young adolescents: Effects of an after-school program. *Journal of Applied Developmental Psychology, 28*(4), 332-344. https://doi.org/10.1016/j.appdev.2007.04.004

Gürbüz, N. (2009). *5. sınıf öğrencilerinin akademik başarılarının ve benlik saygılarının okul sonrası kültürel-sportif etkinliklere katılmalarına ve diğer bazı değişkenlere göre incelenmesi* [Unpublished Doctoral dissertation], Marmara University.

Gynne, A., & Persson, M. (2018). Teacher roles in the blended classroom–Swedish lower secondary school teachers' boundary management between physical and virtual learning spaces. *Journal of Computer and Education Research, 6*(12), 222-246. https://doi.org/10.18009/jcer.442499

Hurd, N., & Deutsch, N. (2017). SEL-focused after-school programs. *The Future of Children, 27*(1), 195-115.

Irkıçatal, Z. (2016). *Fen, teknoloji, mühendislik ve matematik (FETEMM) içerikli okul sonrası etkinliklerin öğrencilerin başarılarına ve FETEMM algıları üzerine etkisi* [Unpublished master thesis]. Akdeniz University.

Kabakçı, Ö. F., & Korkut, F. (2008). 6-8. sınıftaki öğrencilerin sosyal-duygusal öğrenme becerilerinin bazı değişkenlere göre incelenmesi. *Eğitim ve Bilim, 33*(148), 77-86.

Karahan, E., Canbazoglu-Bilici, S., & Unal, A. (2015). Integration of media design processes in science, technology, engineering, and mathematics (STEM) education. *Eurasian Journal of Educational Research, 60,* 221-240. https://doi.org/10.14689/ejer.2015.60.15

Koruklu, N., Sağkal, A. S., Özdemir, Y., & Kuzucu, Y. (2017). Çatışma çözme ve akran arabuluculuk eğitimi programının sosyal duygusal öğrenme ve üstbiliş becerileri üzerindeki etkisi. *Adnan Menderes Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Dergisi, 8*(2), 66-80. https://dergipark.org.tr/en/download/article-file/437796

Kozikoğlu, İ., & Özcanlı, N. (2020). Destekleme ve yetiştirme kurslarına ilişkin öğretmen ve öğrenci görüşleri: Bir karma yöntem çalışması. *Bayburt Eğitim Fakültesi Dergisi, 15*(30), 280-305. DOI: 10.35675/befdergi.663839

Kruger R.A. (1994) *Focus Groups: A Practical Guide for Applied Research*. Sage Publications, CA, USA.

Kuyulu, İ. (2015). *Spor lisesi ve Anadolu liselerinde öğrenim gören orta öğretim öğrencilerinin sosyal duygusal öğrenme düzeylerinin çeşitli değişkenlere göre incelenmesi.* [Unpublished master thesis]. Kahramanmaraş Sütçü İmam University.

MEB. (2020). *Destekleme ve yetiştirme kursları yönergesi*. https://e-kurs.meb.gov.tr/Dosya/DYK_YONERGESI.pdf

MEB. (2021). *OECD Sosyal ve duygusal beceriler araştırması Türkiye ön raporu* (Eğitim Analiz ve Değerlendirme Raporları Serisi, No:19). Turkey. http://www.meb.gov.tr/meb_iys_dosyalar/2021_09/07170836_No19_-_OECD_Sosyal_ve_Duygusal_Beceriler_Arastirmasi.pdf

Meşeci, F. (2008). Öğretmenin sosyalleştirici rolü ve istenmeyen davranışlarla başa çıkma. *HAYEF Journal of Education, 5*(1), 115-125. https://dergipark.org.tr/en/download/article-file/93104

Metz, S. M., Frank, J. L., Reibel, D., Cantrell, T., Sanders, R., & Broderick, P. C. (2013). The effectiveness of the learning to BREATHE program on adolescent emotion regulation. *Research in Human Development, 10*(3), 252-272. https://doi.org/10.1080/15427609.2013.818488

Mutlu Kaya, D. (2020). *Non-formal öğrenme ortamlarının epizodik belleğe ve öğrenci başarısına etkisinin araştırılması: Enerji parkı*. [Unpublished master thesis]. Hacettepe University.

Nartgün, Ş. S. & Dilekçi, Ü. (2016). Eğitimi destekleme ve yetiştirme kurslarına ilişkin öğrenci ve öğretmen görüşleri. *Kuram ve Uygulamada Eğitim Yönetimi, 22*(4), 537-564. DOI:10.14527/kuey.2016.021

Öçal, T. (2015). *Okul öncesi öğrencilerinin matematiksel becerilerini geliştirmede öğretmenlerin rol ve sorumlulukları*. [Unpublished doctoral dissertation]. Atatürk University.

Özdemir, N. K., & Bacanlı, F. (2020). Sosyal duygusal öğrenme becerileri ve kariyer gelişimi: öğretmen ve psikolojik danişman rolleri. *Milli Eğitim Dergisi*, *49*(226), 323-344.

Özmen, B., & Altun, A. (2014). Undergraduate students' experiences in programming: difficulties and obstacles. *Turkish Online Journal of Qualitative Inquiry, 5*(3), 9-27. https://doi.org/10.17569/tojqi.20328

Paolini, A. C. (2020). Social emotional learning: Key to career readiness. *Anatolian Journal of Education, 5*(1), 125-134. https://doi.org/10.29333/aje.2020.5112a

QSR International. (2021). *About cluster analysis*, Retrieved January 23, 2021 from http://help-nv11.qsrinternational.com/desktop/concepts/about_cluster_analysis.htm

Raimundo, R., Marques-Pinto, A., & Lima, M. L. (2013).The effects of a social–emotional learning program on elementary school children: The role of pupils'characteristics. *Psychology in The Schools, 50*(2), 165-180. https://doi.org/10.1002/pits.21667

Sarıoğlan, A. B., & Küçüközer, H. (2017). Fen bilgisi öğretmen adaylarının okul dışı öğrenme ortamları ile ilgili görüşlerinin araştırılması. *Journal of Research in Informal Environments, 2*(1), 1-15. https://dergipark.org.tr/en/download/article-file/328186

Shernoff, D. J. (2010). Engagement in after-school programs as a predictor of social competence and academic performance. *American Journal of Community Psychology, 45*(3), 325-337. DOI: 10.1007/s10464-010-9314-0

Smith, B. H., & Low, S. (2013). The role of social-emotional learning in bullying prevention efforts. *Theory into Practice, 52*(4), 280-287. https://doi.org/10.1080/00405841.2013.829731

Şahin, A., Ayar, M.C., & Adıgüzel, T. (2014) STEM related after-school program activities and associated outcomes on student learning. *Educational Sciences: Theory & Practice, 14*(1), 309-322. http://dx.doi.org/10.12738/estp.2014.1.1876

Tosuntaş, Ş. B., Emirtekin, E., & Kircaburun, K. (2020). Kodlama eğitiminde işbirlikli öğrenme yaklaşımı: eşli kodlama. *OPUS International Journal of Society Researches, 16*(27), 490-515. DOI: 10.26466/opus.680327

Totan, T. (2011). *Problem çözme becerileri eğitim programının ilköğretim 6. sınıf öğrencilerinin sosyal duygusal öğrenme becerileri üzerine etkisi*. [Unpublished doctoral dissertation]. Dokuz Eylül University.

Totan, T., & Kabakçı, Ö. F. (2010). İlköğretim ikinci kademe öğrencilerinde sosyal duygusal öğrenme becerilerinin zorbalığı yordama gücü. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi, 23*(2), 575-600. https://dergipark.org.tr/en/download/article-file/153422

Turanlı, A. S. (2009). Öğretmenlerin sosyal-duygusal destek davranışları ve öğrencilerin algıladığı öğrenme düzeyi. *Sosyal Bilimler Enstitüsü Dergisi, 1*(26), 15-26.

Türnüklü, A. (2004). Okullarda sosyal ve duygusal öğrenme. *Kuram ve Uygulamada Eğitim Yönetimi, 37*(10), 136-152.

The National Afterschool Association (2019). *SEL to the core: building from foundational youth development to support social and emotional learning*, Retrieved February 9, 2022 from https://naaweb.org/resources/sel-to-the-core

TÜSİAD (2019). *Sosyal ve duygusal öğrenme becerileri: Yeni sanayi devriminin eşiğinde iş ve yaşam yetkinliklerinin anahtarı*. Retrieved February 9, 2022 from https://tusiad.org/tr/tum/item/10452-tusi-ad-in-raporu-egitimde-sosyal-ve-duygusal-becerilerin-onemine-dikkat-cekiyo

Waajid, B., Garner, P. W., & Owen, J. E. (2013). Infusing social emotional learning into the teacher education curriculum. *International Journal of Emotional Education, 5*(2), 31-48. https://files.eric.ed.gov/fulltext/EJ1085617.pdf

West, M. R., Pier, L., Fricke, H., Hough, H., Loeb, S., Meyer, R. H., & Rice, A. B. (2020). Trends in student social-emotional learning: Evidence from the first large-scale panel student survey. *Educational Evaluation and Policy Analysis, 42*(2), 279-303. https://doi.org/10.3102/0162373720912236

Yeager, D. S. (2017). Social and emotional learning programs for adolescents. *The Future of Children, 27*(1), 73-94

Yengin, İ., Karahoca, D., Karahoca, A., & Güngör, A. (2015). *Modelling roles and qualities of effective teachers for the design of ınformation and communication technologies supported teaching tools*, [Paper presentation]. E-learning'15, Berlin, Germany.

Yıldırım, A., & Şimşek, H. (2018). *Sosyal bilimlerde nitel araştırma yöntemleri* (11. Edition). Seçkin Publications.

Yıldız, A., & Kahraman, S. (2021). Ortaokul öğrencilerinde psikolojik dayanıklılık, sosyal duygusal öğrenme becerileri ve yaşam doyumu arasındaki ilişki. *Okul Psikolojik Danışmanlığı Dergisi, 4*(2), 23-60. https://dergipark.org.tr/en/download/article-file/1758898

Yin, R. K. (2009). *Case study research: Design and methods* (5. Edition). Sage Publications.

Yüksel, M. Y., Tekin, Ö. E., & Kaplaner, K. (2021). The research of the relationship between the problem-solving skills & metacognitive awareness of middle school students and the social emotional learning. *Cukurova University Faculty of Education Journal, 50*(1), 487-506. Doi: 10.14812/cufej.747349

Yazar, T., & Baran, C. (2020). *Ortaokuldaki Destekleme ve Yetiştirme Kurslarının Öğretmen Görüşlerine Göre Değerlendirilmesi*. Uluslararası Pegem Eğitim Kongresi (IPCEDU), Turkey. https://2020.ipcedu.org/?s=7

Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. J. (2004). The scientific base linking social and emotional learning to school success. *Building academic success on social and emotional learning: What does the research say*, Teachers College, Columbia University.

Geniş Özet

Giriş

Öğretmenin rol ve görevlerine yönelik yapılan çalışmalar incelendiğinde öğretmenin örgün eğitimdeki rol ve görevlerine yönelik çalışmalar bulunduğu görülmektedir. Okul sonrası faaliyetler, örgün eğitimden birçok yönden farklılaşmaktadır ve bu rollerin okul sonrası faaliyetler için aynen geçerli olduğu ne yazık ki söylenememektedir. Okul sonrası faaliyetlerde öne çıkan öğretmen rol ve görevlerinin belirlenmesi daha etkili öğrenme ortamları sağlanması için önem arz etmektedir. Literatürde okul sonrası kodlama kurslarındaki rol ve görevlerin açıkça belirtildiği bir çalışmaya rastlanmamıştır.

Okul sonrası yapılan kodlama kurslarında öğretmenin rol ve görevleri belirlenirken sosyal duygusal öğrenme temel alınmıştır. Sosyal duygusal öğrenmenin davranış bozukluklarının azalması, öğrenmeyi kolaylaştırma, akademik performansın artması gibi eğitim ortamına olumlu etkilerinin olduğu görülmektedir (Durlak vd., 2011; Elias vd., 1997; MEB, 2021). Diğer yandan günümüz iş dünyasının kişilerde önemli bulduğu özellikler de değişmektedir. TÜSİAD tarafından 2019 yılında yayınlanan "Sosyal ve Duygusal Öğrenme Becerileri: Yeni Sanayi Devriminin Eşiğinde İş ve Yaşam Yetkinliklerinin Anahtarı" başlıklı raporda iş hayatında kişilerin sosyal duygusal becerilere sahip olmasının önemli olduğu belirtilmiştir (TÜSİAD, 2019). MEB tarafından açıklanan OECD sosyal duygusal beceri araştırmasında da öğrencilerin sosyal duygusal becerilerinin desteklenmesi ve okullardaki rehberlik dışındaki diğer öğretmenlere bu becerilere yönelik eğitimler verilmesi önerilmiştir (MEB, 2021). 10-13 yaş grubuna verilen kodlama kurslarında öğretmenlerin öğrencileri sosyal duygusal açıdan desteklemek için hangi rol ve görevleri üstelendiklerinin incelenmesi bilişim teknolojileri öğretmenlerinin öğrencilerini nasıl destekleyebilecekleri konusunda yardımcı olacaktır. Böyle önemli katkıları olan sosyal duygusal öğrenmeye okullarda yeterince vakit ayırılamamakta ve ihmal edilebilmektedir (Türnüklü, 2004). Buradaki eksiklik okul sonrası ortamlarla giderilebilmekte ve böylece öğrencilerin sosyal duygusal becerileri desteklenebilmektedir (Durlak vd., 2010; The National Afterschool

Association, 2019). Özmen ve Altun (2014) tarafından kodlama eğitiminde öğrencilerin zorlandıkları noktalar ve nedenleri araştırılmıştır. Okul sonrası yapılan kodlama kursları ile öğrencilerin zorlanılan noktaların (hata ayıklama, problem çözmü için strateji geliştirme gibi) ve nedenlerinin (tekrar yapmama, hazır kodlardan yararlanma gibi) üstesinden gelmeleri öğretmenlerin organizatör, rehber, destekleyici, gözlemci, iletişimci ve yönetici roller ve görevleri ile kolaylaşabilmektedir. Kodlama eğitimine yönelik; okul sonrası yapılan kurslar, özel kuruluşlar tarafından verilen dersler, deneyap atölyeleri veya kendin yap atölyeleri vb. okul dışı faaliyetler olarak sayılabilir. Bu çalışmada, bu faaliyetlerden sadece okul sonrası yapılan kurslar incelenmiştir.

Dolayısı ile, bu çalışmanın amacı okul sonrası gerçekleştirilen kodlamaya yönelik eğitim faaliyetlerinde öğretmenin üstlendiği rol ve görevlerin tespit edilmesidir. Bu amaca yönelik öğretmenlerin okul sonrası olarak gerçekleştirilen kodlama eğitim faaliyetlerinde de üstlendiği rollerin ve görevlerin sosyal duygusal öğrenme çerçevesinde ele alınarak, bunların neler olduğu sorusuna yanıt aranacaktır.

Yöntem

Çalışma grubunu okul sonrası kodlama kursu vermiş olan bilişim teknolojileri öğretmenlerinden seçilen 7 kişi oluşturmaktadır. Bu çalışmada 7 birebir görüşme yüz yüze olarak, 2 odak grup görüşmesi ise çevrimiçi olarak gerçekleştirilmiştir. Görüşmelerde ses kaydı yapılmıştır. Ses kayıtlarından transkriptler hazırlanmıştır. 65 sayfadan ve 29055 kelimeden oluşan veri seti elde edilmiştir.

Elde edilen verilere içerik ve çerçeve analizi yapılmıştır. Nvivo programı kullanılarak analizler gerçekleştirilmiştir. Bu analizler yapılırken sosyal duygusal öğrenmenin entegrasyonu ile ilgili öneriler sunan kaynaklardan faydalanılmıştır.

Sosyal duygusal öğrenme CASEL tarafından 3 tema ve bunlara ait 5 başlık olarak belirtilmektedir. Tema 1 ilişki becerileri ve sosyal farkındalık, tema 2 sorumlu karar verme, tema 3 özyönetim ve öz farkındalık başlıklarından oluşmaktadır. İlk olarak literatürdeki bu beş başlıktan her biri ile ilgili olarak öğretmenlerin neler yapabileceklerini açıklayan çalışmalar incelenmiş ve her başlık için listeler oluşturularak bir kodlama çerçevesi elde edilmiştir. Bu kuramsal çerçeve kullanılarak yapılan kodlamalarda tümdengelim yaklaşımı uygulanırken yapılan ek kodlamalarda tümevarım yaklaşımı uygulanmıştır. Bu şekilde hibrit yaklaşımdan yararlanılmıştır.

Verilerin oluşturulan temalara uygun olup olmadığını örtüşen ifadelerin anlamlı olup olmadığını görmek için ise jaccard analizi yapılmıştır. Jaccard analizi kelime benzerlik analizlerindendir. Kelime benzerliği, kelimelerin bulunma durumu ve kullanım sıklığına göre karşılaştırma yapmaktadır. Benzerlik veya farklılıkları belirlemeye yardımcıdır (Altınok, 2019; QSR International, 2021). Bu çalışmada jaccard katsayısı Nvivo programı kullanılarak hesaplanmıştır.

Geçerlik, bu çalışmada sosyal duygusal öğrenmenin CASEL tarafından belirtilen beş ana başlığı kullanılarak kuramsal çerçeve ile artırılmıştır. Ayrıca bu çalışmada amaçlı örnekleme ile benzer özellikler gösteren katılımcılarla çalışılarak geçerlik artırılmıştır. Bunlara ilaveten derinlik odaklı veri toplanarak geçerlik desteklenebilmektedir (Yıldırım ve Şimşek, 2018). Bu amaçla birebir görüşme yapılan kişilerle odak grup görüşmesi yapılmıştır.

Güvenirlik için farklı bir kişi tarafından da kodlamalar yapılıp kodlayıcılar arasındaki uyum indeksi hesaplanmıştır. Uyum indeksi iç tutarlılığı göstermektedir. Uyum indeksi 0,916 olarak hesaplanmıştır. Ayrıca güvenirliği desteklemek amacıyla benzerlik testlerinden olan jaccard analizi uygulanmış ve amaçlı örnekleme yapılmıştır. Jaccard katsayısı; akran ilişkileri ile özdüzenleme arasında 0,199, akran ilişkileri ile görev bilinci arasında 0,110 ve öz düzenleme ile görev bilinci arasında 0,085 olarak hesaplanmıştır.

İnandırıcılık nitel çalışmalarda önemli bir yere sahiptir. İnandırıcılığı desteklemek için bu çalışmada aynı kişilerle hem bireysel görüşme hem odak grup görüşmesi yapılarak uzun süreli etkileşimde bulunulmuştur. Katılımcı teyidi kullanılan diğer bir stratejidir.

Sonuçlar ve Tartışma

Elde edilen verilere yapılan analizler sonucunda öğretmenlerin rol ve görevleri üç ana temada toplanmıştır. Bu temalar akran ilişkileri, görev bilinci ve özdüzenlemedir. Bu temalarda öğretmenlerin destekleyici, gözlemci, iletişimci, organizatör, rehber ve yönetici rolleri üstlendikleri görülmektedir.

Bu çalışmada sosyal duygusal öğrenme temel alınarak okul sonrası yapılan kodlama kurslarında öğretmenlerin üstlendiği rol ve görevler belirlenmiştir. Öğretmenlerin sıklıkla gözlemci rolü üstlendikleri görülmektedir. Öğretmenler ilgili tema ile ilgili öğrenci davranışlarını gözlemleyerek gözlemci rolü ve birebir açıklamalarda bulunarak iletişimci rolü yerine getirmektedirler. Yönetici rol ile kuralları ve grupları belirlemektedir. Destekleyici rol ile öğrenciler yardıma ihtiyaç duyduklarında onlara direkt müdahale ederken, rehber rol ile öğrencilerin becerilerini nasıl geliştireceklerine yönelik yol göstermektedirler. Ayrıca organizatör rol ile öğrencilere uygun ortam hazırlanmakta veya etkinliklerle fırsatlar sunulmaktadır. Alanyazın incelendiğinde bu çalışmanın sonuçlarının desteklendiği görülmektedir. Sarıoğlan ve Küçüközer (2016) tarafından okul dışı öğrenme ortamlarındaki öğretmen rollerine yönelik öğretmen adaylarının görüşleri sorulmakta ve rehber rol ile içerik belirleme en fazla söylenenler olmaktadır. Öçal (2015) tarafından yapılan tez çalışmasında da matematik öğretiminde öğretmenin rolleri belirlenmeye çalışılmakta ve öğretmenden en fazla rehber rolü yerine getirmesi beklenmektedir. Bu çalışmada da öğretmenlerin rehber rolü üstlendiği görülmüştür. Ayrıca Deniz (2000) tarafından duyuşsal öğrenmelerde öğretmenin çevreyi düzenleyebileceği belirtilmektedir. Bu çalışmada da organizatör role ait görevlerde çevre yani ortamı düzenlemeye yönelik görevler ortaya çıkmıştır. Bu çalışmadaki rol ve görevlerin akran ilişkiler, özdüzenleme ve görev bilinci temalarında toplandığı görülmüştür.