

FOCUSING ON STUDENT LEARNING

From Teaching Practices to School-Family Connection

Editor
Esen Altunay



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Educational Sciences

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PREFACE

Education plays a crucial role in the progress of societies. To ensure the success of education, it is essential to consider the students learning experiences, the teachers' guidance, and the school leadership. Therefore, collaboration with all members and stakeholders of the school ecosystem is necessary to improve the quality of the classroom environment designed for education. This book, "Focusing on Student Learning: From Teaching Practices to the School-Family Connection," focuses on enhancing student learning by addressing key elements in strengthening education.

The book chapters are classified according to two main themes to offer readers a broad perspective. The first theme focuses on the development of teaching practices, while the second theme centers on the school-family connection. The first chapter of the book aims to introduce information to readers about the Flow Theory and to share that the theory is applicable in teaching activities. The second part aims to explain teachers' experiences in evaluating teachers' personal mastery of school principals. The results are crucial in increasing the quality of teachers, improving the status of the teaching profession, and providing solutions to raise more competent individuals through education. In the third section of the book, the experiences of deaf students and teachers during the COVID-19 pandemic are assessed. This provides a framework for post-pandemic policies, as regulations must be based on the requirements of individuals, in addition to the extensive planning and transitions that with each change.

The fourth chapter concentrates on the areas in where school administrators require professional development, the difficulties they encounter during this process, and their evaluation of policies regarding these issues. Authors also aim to examine the alignment of these evaluations with existing literature, identify gaps, and contribute to the formulation of more effective educational policies. The fifth chapter focuses on the sources of teaching self-efficacy (TSE) in pre-service teacher training and emphasizes that teacher educators should consider and implement the sources of TSE together. The authors suggest conducting program-specific evaluations and making efforts to strengthen the TSE aspects of pre-service teacher training programs. These chapters detail the various factors that affect teaching practice and provide guidance for teachers, administrators, and future educators.

As part of our second theme, which focuses on the school-family connection, we explored the role of the families as a stakeholders in the education process. We presented various perspectives on how to strength educational practices and the school environment. The sixth chapter of our book delves into the early literacy skills and mathematical reasoning skills of children living in socio-economically disadvantaged areas. Authors also aimed to determine the relationship between these two skills for children. The seventh chapter looks at the relationship between instructional leadership, academic climate, and school-family connection. By examining how these factors affect students' success, authors attempt to contribute to the strengthening of school communities. Lastly, our final chapter explores school-family cooperation as a critical component of school improvement. Authors evaluate the reflections of the differentiation of schools in the context of their socioeconomic frameworks and use the rich knowledge infrastructure of the field of educational management.

This book is designed to offer effective strategies and practices to increase student success by highlighting key elements in education. By gaining a better understanding of the role of the school environment, teachers, and school leaders, readers will discover the potential to make a constructive contribution to the educational process. We hope that this book sheds light on the efforts of everyone working in the education community to shape the future of students and contributes to creating a stronger education system by sharing best practices in education. I would like to thank all my colleagues who contributed to this book.

Esen ALTUNAY

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I. SECTION
TEACHING PRACTICES

CHAPTER I

USE OF FLOW THEORY IN TEACHING PRACTICES

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1. Introduction

Perhaps the most challenging situations for teachers, yet ones for which they struggle to find a solution, are when students show disinterest in learning, are unhappy about being at school, do not participate eagerly in classes and learning activities, have low motivation to learn, leading to increased discipline problems, and issues such as dropping out of school. The vast majority of academic studies tend to focus solely on students' learning skills and performance in specific subjects and domains, as well as their low academic achievement in national or international exams. However, as Csikszentmihalyi (2014a) argues, the primary cause of children's failure may lie in their lack of motivation rather than their intellectual capacity. Put differently, the issue stems from students' unwillingness to engage and their disinterest in learning, rather than their lack of comprehension or intellectual ability to handle school tasks. Being engaged in school goes beyond mere attendance or passive presence in the classroom; it involves actively participating in and benefiting from learning activities (Ay, 2022).

In this section, we will explore how flow experience can be utilized in the teaching process within the context of Csikszentmihalyi's (1975) Flow Theory to shed light on addressing the aforementioned issues. For this purpose, the basic characteristics of the Flow Theory will be provided along with explanations on how educators can use it in the teaching process and classroom activities.

2. What Is “Flow”?

In the mid-1970s, Csikszentmihalyi (1975) emphasized that individuals, when highly dependent on external rewards, experience a decrease in the enjoyment or happiness derived from the work they do or the situations they are in. Therefore, he highlighted the need to determine a way for individuals to derive enjoyment from the work itself. When Csikszentmihalyi and colleagues decided to examine situations that bring individuals happiness, provide intrinsic motivation, and involve enjoyment in the activity itself, they considered focusing on activities similar to sports, games, arts and hobbies, and possessing obviously these characteristics (Csikszentmihalyi, 1975; 2018; Nakamura & Csikszentmihalyi, 2002).

Somehow, researchers observed that individuals do not require any external motivation even in time-consuming, challenging, and potentially dangerous activities such as mountain climbing, conducting surgical operations, sailing, writing poetry, playing chess, doing mathematics, theatre and music; in fact, they found joy in engaging in these activities themselves (Csikszentmihalyi, 2018; Csikszentmihalyi & Rathunde, 1992). How could this be possible? Researchers, seeking an answer to this question, gathered data from a wide range of participants, from amateurs to professionals such as chess players, tennis players, musicians, dancers, basketball players, surgeons, teachers, students, and mountain climbers, etc. using several surveys and interview forms, and attempted to reach a conclusion by analyzing the responses of individuals who find enjoyment in their work (Csikszentmihalyi, 1975). The results showed that participants from diverse fields and talents alike used a common metaphor of “flow,” to describe their experiences within the activities driven by intrinsic motivation, thus giving rise to the name of the theory (Csikszentmihalyi & Rathunde, 1992).

Csikszentmihalyi (1990) has linked the relationship between happiness and flow to individuals experiencing enjoyment during activities and feeling happy as a result of the activity. For this reason, it is possible to characterize Flow Theory as one of the psychological theories related to happiness and subjective well-being (Csikszentmihalyi & Mei-Ha Wong, 2014). Flow is an inherently motivating state marked by profound engagement. During a flow experience, distractions and self-awareness are minimized (Borovay, 2007). It is possible to observe the effects of the flow experience, representing individuals’ natural enjoyment and happiness derived from their work and activities, in every aspect of life, including sports, arts, work life, education, and daily life. It is stated that experiences, which individuals from different fields commonly define as the

concept of flow, share some common characteristics (Csikszentmihalyi, 1975a). These characteristics have been identified as flow elements and are explained below.

2.1. The Elements of Flow

In activities where individuals experience flow, researchers have identified nine characteristics, categorizing three of them as antecedents of the activity and the remaining six as components of the experience (Csikszentmihalyi, Latter, & Duranso, 2017).

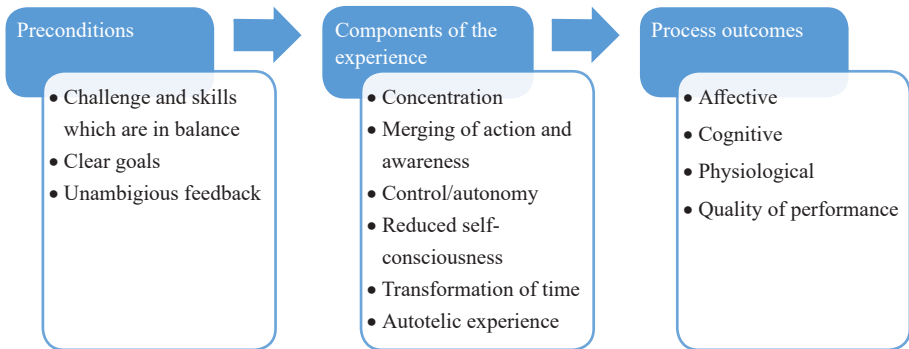


Figure 1. Factors leading to, elements of, and outcomes resulting from the flow state (Adapted from “Advances in flow research” by S. Engeser (Eds.), (pp. 65-86). New York, NY: Springer.)

As seen in Figure 1, preconditions are factors which impact the flow experience and determine the conditions prior to the activity. These include elements such as the balance between individuals’ abilities and the difficulty of the task, clear goals of the activity, and the ability to receive immediate feedback. Components, on the other hand, are characteristics that constitute the flow experience and are experienced by the individual during the activity (Csikszentmihalyi, 1975a). These include elements such as deep concentration, merge of action and awareness, the feeling of control, losing self-consciousness, transformation of time, and autotelic experience (Csikszentmihalyi et al., 2017; Landhäußer, & Keller, 2012).

2.1.1. Skills and Challenge that are in Balance

The consistency between the challenge of the task and the level individual’s skill is the most crucial aspect for experiencing flow (Nakamura & Csikszentmihalyi, 2002). According to Shernoff and Csikszentmihalyi (2009), there should be a balance between individual skills and the level of difficulty

of the activity when both variables are above a certain threshold. Otherwise, in low-level situations where both variables are close to zero, even if there is balance, apathy emerges.

As represented in Figure 2, if this balance is disrupted in favor of challenge, that is, when the challenge exceeds the one's skill level, he/she may suffer feelings of anxiety and frustration. Conversely, when skills surpass the challenge level, he/she may experience feelings of boredom and relaxation, leading them to exit the flow state again. In both cases, adjustments are needed for the individual to re-enter the flow state. It is possible to return to flow either by increasing skills or increasing the level of challenge (Csikszentmihalyi, 1990; Csikszentmihalyi & Csikszentmihalyi, 1988; Shernoff & Csikszentmihalyi, 2009).

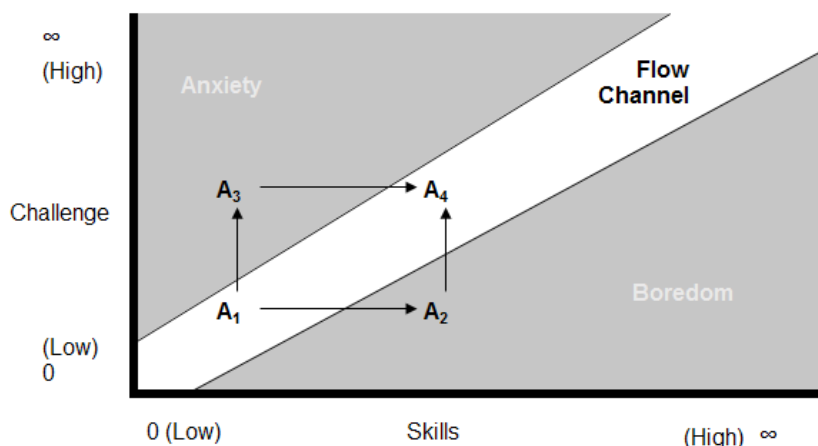


Figure 2: Transition Between Anxiety, Boredom and Flow. (Copyright “*Flow: The psychology of optimal experience*” (p.74). by M. Csikszentmihalyi, (1990). New York: Harper and Row.)

An example of this characteristic can be observed in the classroom setting. Attempting to teach students topics and concepts that are beyond their cognitive, affective, or psychomotor development levels may lead to the emergence of anxiety and their exit from the flow channel (from A1 to A3 in Figure 1). In such cases, increasing students' skill levels can facilitate re-entry into the flow channel. However, this may not always be possible. In situations where it is not feasible to enhance students' skills, reducing the level of challenge in teaching activities can also be a way to enable the experience of flow once again.

On the other hand, when teaching activities fall below the skill level of the students, learners may also deviate from the flow channel (from A1 to A2). In

such a situation, learners may exhibit boredom towards activities that they find too easy. Since it may not be possible to decrease the skill level of the students, increasing the level of challenge in teaching activities can allow individuals to experience flow state again (from A2 to A4).

2.1.2. Clear Goals

One of the factors which facilitates individuals to experience flow is having clear goals for the activity, with expectations clearly expressed regarding what is expected from them (Csikszentmihalyi, 1990; Jackson & Csikszentmihalyi, 1999). Clear goals offer learners with feelings of direction and aim, helping them focus their attention and efforts effectively. Additionally, these goals should be specific, understandable, and achievable at the level of learners. An individual's focus or mental energy moves without hindrance and is directed towards achievable goals that are perceived as realistic (Blood, 2006). Clear goals increase the likelihood of individuals experiencing flow since they know what they are working towards and can monitor their progress (Csikszentmihalyi, 1994).

In games or certain sports competitions, goals are known in advance, to defeat the opponent or to score points, etc. However, in an educational setting, such clarity may not always exist. Therefore, teachers should clearly communicate to students what is expected of them during learning activities, or the expected behaviors should be shared with them through guidelines before the activity. Involvement of students in the planning process of learning activities can help them become aware of the expected goals. This way, they can internalize the goals and actively participate in the activities.

2.1.3. Immediate Feedback

An important condition for individuals to experience flow in an activity is being able to receive instant and clear feedback about their progress (Csikszentmihalyi, 1975). These feedback mechanisms allow individuals to see their performance relative to established goals, thereby resolving confusion and enabling them to proceed with more confidence (Heine, 1997). Furthermore, getting concise and prompt feedback contributes to boosting the internal drive and self-belief of students (Csikszentmihalyi, 1997). However, an important point to note here is that feedback should not steer individuals toward the dynamics of external control. In other words, direct feedback from the activity in which individuals are engaged tends to be both informative and immediate, thus increasing the likelihood of experiencing flow (Heine, 1997). If one can

learn to draw conclusions based on ongoing experiences, the burden of social controls spontaneously dissipates for individuals (Csikszentmihalyi, 1990).

For example, for a chess player, immediate feedback could involve using the correct piece in the right move. In response, the individual learns that their move was correct by gaining an advantage over their opponent and becomes internally motivated, experiencing flow. Or for a cyclist, falling off due to a wrong move on rough terrain can also serve as immediate feedback, and the individual, based on this feedback, can execute the correct move in the next attempt, thus sustaining the flow experience.

Similarly, in a math class, students might be asked a question like ‘If five children share a cake equally, how much cake does each child get?’. The feedback that will greatly facilitate students’ experiencing flow in such a problem-solving activity is generated from the interaction with the problem-solving task itself. The student engages with the problem, finds a solution, and checks the result. Regardless of whether the answer is correct or incorrect, it ensures the receipt of immediate and informative feedback. If the answer turns out to be incorrect, it doesn’t deter the student from continuing the activity; rather, based on the feedback received, the student persists in the activity until finding the correct answer.

2.1.4. Concentration/Focused Attention

Csikszentmihalyi (1990) suggests that by forgetting the unpleasant, unnecessary aspects of daily life and focusing entirely on the task at hand, individuals can protect themselves from the distracting elements that occupy the mind. In all activities where flow experience is encountered, it is observed that individuals focus their attention on the task at hand and display intense concentration. People often express that they lose awareness of their troubles because the immersive nature of the experience hinders individuals from dwelling on past and future concerns (Csikszentmihalyi, 1994).

In numerous flow-inducing tasks, there exist incentives which aid people in maintaining focus on the current activity. Those incentives may include competitions (e.g., sports and games), tangible rewards (e.g., gambling), and physical risks (e.g., rock climbing) (Csikszentmihalyi, 2014b). This focused attention is a key component of flow, enabling individuals to perform at their peak and derive deep satisfaction from the activity.

When concentration is disrupted for any reason, it may become difficult for an individual to enter the flow state, or for someone already in flow to maintain it. Therefore, in classroom activities, it is important to eliminate distractions that

could divert students' attention (such as noise, light, or an unsettled classroom atmosphere). In group activities, for example, some students may distract others, preventing them from focusing. To prevent this, responsibilities can be assigned to each group member according to their skill levels.

2.1.5. Merge of Action and Awareness

When the learner is fully concentrated on the activity, action and awareness blend seamlessly, excluding irrelevant stimuli from consciousness (Csikszentmihalyi, 2014b). Despite significant variations among them, activities that induce flow experiences share common traits. Specifically, these activities offer opportunities for engagement where individuals can act without experiencing boredom or anxiety (Csikszentmihalyi, 1975). For example, a surgeon is aware of each intervention and technique used during an operation, but he is not aware of that awareness. Alternatively, a musician in a state of flow is very aware of the sequence of each note while playing a piece, performing it as effortlessly as breathing, yet she does not think of herself differently from the activity.

While flow can be achieved in various activities, individuals tend to experience it more prominently in games, rituals, and dance-like art activities with clearly defined rules that match their abilities (Csikszentmihalyi, 1975). The reason for this is that our behaviors spontaneously guide and propel us forward in a miraculous way during moments of experiencing flow (Csikszentmihalyi, 1990).

2.1.6. Sense of Control/Autonomy

In order for learners to be maximally motivated and experience flow during the learning-teaching process, students should be given choices and control over their learning activities, with opportunities for personal autonomy and decision-making on specific task aspects that are thoughtfully selected. These variables could encompass the nature of the task, the individual's skill level, the degree of effort demanded, or the type of reward anticipated (McCombs & Pope, 2010). Students who indicated experiencing high levels of flow exhibited greater autonomy and control compared to those who reported lower levels of flow (Hektner, 1996).

The control and responsibility given to students do not hinder the guidance provided by the teacher on specific topics. The teacher should play a facilitating role by directing students to different sources of information. Additionally, they should act as guides, mentors, and monitor students' progress (McCombs &

Pope, 2010). Therefore, when designing learning activities in the classroom, teachers should make efforts to plan activities in a way that fosters a sense of control and autonomy during individual or collaborative work. Providing opportunities for students to oversee and control their own progress supports these features.

2.1.7. Losing Self-Consciousness

When fully engaged in a task, as in the experience of flow, concerns about the “self” move away from the center of attention (Csikszentmihalyi, 1994). Losing self-consciousness entails individuals becoming deeply engrossed in an activity to the extent that they no longer perceive themselves as distinct entities, as their attention becomes wholly absorbed by the challenges they are facing (Nakamura & Csikszentmihalyi, 2014). In other words, the loss of self-consciousness enables the individual’s mental energy to be fully directed towards the activity, without posing any threat to the self, because of the concentration provided by the challenge matching their skills (Sahranç, 2021). That is, decreased self-consciousness could lead individuals who are in the state of flow might result in them having more self-regulatory resources accessible for subsequent situations compared to those do not experience flow. Therefore, such individuals may experience less ego-depleted than individuals not in flow, thereby enhancing their ability to focus (Landhäußer & Keller, 2012).

In the flow state, what is typically lost is not the awareness of one’s body or its functions, but rather the sense of self, the intermediary construct that individuals have learned to insert between stimulus and response (Csikszentmihalyi, 1975). The decline in self-awareness, resulting from the individual’s capability to eliminate concerns related to the self, signifies the lack of self-consciousness. For instance, a musician can utilize all her fingers while playing music, remembers the sequence of notes in the score, recall various functions, indicating that her consciousness remains intact. What diminishes are reflections pertaining to the self, including personal identity and existence.

2.1.8. Altered Sense of Time

During the flow experience, individuals’ perception of time differs from that in other situations. They express that time passes quickly when they engage in activities they enjoy, have fun with, and feel happy about. Nakamura and Csikszentmihalyi (2002) explain this situation as the “distortion of the temporal experience, which usually means the feeling of time passing faster than usual” due to attention being completely focused on task.

For instance, after engaging in activities which provide them with a flow experience, students sometimes express that the 40-minute class period seems to pass as quickly as 5 minutes. However, when they feel compelled to participate in learning activities that they find boring or uninteresting, they might feel that the class period is very long, as if days have passed. This situation is also related to the distortion of time perception. Or sometimes, while playing a computer game that you really enjoy, you don't notice the passing hours. This situation indicates that you are really experiencing flow, thanks to the game designers adjusting the difficulty level of tasks in the game according to your progressing skills, the chance to receive feedback on every intervention you make in the game, and the clarity of your goals about the game.

2.1.9. Autotelic Experience

The term 'autotelic' originates from the combination of the Greek words 'auto' (self) and 'telos' (goal), denoting activities that are inherently rewarding (Nakamura & Csikszentmihalyi, 2002, p. 89). In Flow Theory autotelic activities necessitates significant and formal energy investment by the individual and refer to an activity that is inherently enjoyable and satisfying in and of itself, rather than being pursued for external rewards or motivations (Csikszentmihalyi, 1975).

Individuals desire to repeat an activity because it brings them immense pleasure (Csikszentmihalyi, 1994). Although many activities we engage in daily life may seem to provide relaxation, these activities do not inherently contain a reward within themselves. Therefore, we cannot consider leisure activities as autotelic experiences. The reason for this is that such activities do not require us to utilize our skills sufficiently. As a result, individuals may exhibit boredom even when watching a TV program after a while. For autotelic experiences, individuals should engage in activities that provide balanced challenges aligned with their skills; otherwise, life can become monotonous and anxiety-inducing for many (Csikszentmihalyi, 1990).

2.2. Studies on Education Involving Flow Theory

So far, the characteristics of the flow experience and explanations related to these characteristics have been provided. In this section, studies focusing particularly on the application of Flow Theory in teaching and learning activities will be discussed.

When examining studies in the literature conducted in the field of education related to Flow Theory, it is noteworthy that in recent years the theory has

become increasingly popular. While the majority of the studies are associated with computer and instructional technologies such as simulation, game-based learning, gamification, virtual learning, computer-supported learning (Admiraal, Huizenga, Akkerman & Dam, 2011; Baydaş, Karakuş, Topu, Yılmaz, Öztürk & Göktaş, 2015; Cooper, 2009; Dos Santos, Bittencourt, Dermeval, Isotani, Marques, & Silveira, 2018; Esteban-Millat, Martínez-López, Huertas-García, Meseguer ve Rodríguez-Ardura, 2014; Hamari, Shernoff, Rowe, Coller, Asbell-Clarke, & Edwards, 2016; Inal and Çağiltay, 2007; Kiili, 2005; Kiili, Freitas, Arnab & Lainema, 2012; Sillaots, 2014), it is also observed that the flow concept is addressed in fields such as music education (Burak, 2014; Li, 2019; Kalay, 2013; Tan & Sin, 2021), language education (Alperer, 2005; Joo, Lim, Han, Ham, & Kang, 2013; Kirchoff, 2013), mathematics education (Aremu and Adebago, 2016; Armstrong, 2008; Ay, 2022; Chang, Wu, Weng and Sung, 2012), science education (Zheng, 2012), and guidance and psychological counseling (Aydm, 2005). Additionally, there are also studies that examine the principles of Flow Theory in several educational topics and school experiences like academic engagement, motivation, achievement etc. (Asakawa, 2004; Bourgeois, 2012; Forehand, 2012; Gardiner, 2012; Zollars, 2017), as well as studies investigating how and to what extent the flow experience emerges in various teaching methods, techniques, strategies, and activities (Chan & Ahern, 1999; Johnson, 2004).

Dos Santos et al. (2018) highlight notable findings indicating that integrating Flow Theory into lessons has a beneficial impact on students' learning outcomes, satisfaction, and exploratory behaviors. Additionally, experimental research comparing game-based instruction, problem-solving-based lessons integrating Flow Theory, and traditional teaching methods reveals that classrooms fostering flow experiences demonstrate higher levels of problem-solving skills and academic achievement (Aremu and Adebago, 2016; Chang et al., 2012). Additionally, in another experimental study where Flow Theory was integrated into realistic mathematics education, it was found that this instructional method resulted in more long-lasting learning compared to traditional instruction (Ay, 2022).

In a qualitative study, Schweinle, Meyer and Turner (2006) examined how students' motivation correlated with teachers' instructional methods. The findings revealed that offering detailed feedback and explaining concepts, promoting autonomy, collaboration, and social connection, and prioritizing learning for its intrinsic value were associated with increased student motivation. The study also suggests that highlighting the equilibrium between challenge and ability,

nurturing self-confidence and appreciation for the course, and encouraging positive emotions can boost student motivation within the classroom.

3. Conclusion

There exist research in the literature which show that children's academic intrinsic motivation levels and their level of enjoyment of school learning gradually decrease as they move to each school level, starting from the time they first start school (Van Slooten, 2013). This can be explained as some teaching approaches applied in education cause students to develop negative feelings towards learning and schools. Students' thoughts that classes are boring or worrying cause them to develop negative attitudes towards school and learning, reduce participation and interest in classes, and as a result, students experience failure. This failure again triggers the student's feelings of boredom and anxiety. Ending this negative cycle at some point can be possible by first instilling in students the belief that they can be successful by designing learning tasks.

Csikszentmihalyi (1975) argues that any activity can be enjoyed and engaged in by individuals, and they would want to participate in it again, only if they experience flow. In this regard, it is considered important for teachers to incorporate elements of flow experience as much as possible so that students can participate in lessons without getting bored, anxious, and enjoyably (Ay, 2022).

In educational activities conducted in schools, it is necessary to clearly and explicitly present goals that will enable students to understand the purpose of learning-teaching activities, the reasons for participating in these activities, what they will learn by participating in these activities, and how the learned subject concepts will be useful to them. Failure to understand the goals by students not only hinders the flow experience but also setting difficult-to-reach goals can lead students to abandon the activity after a certain point. Therefore, teachers may prefer to determine these goals together with students, for example, in project work.

In the second place, the organized teaching activities, the questions asked in the classroom, the assignments and projects given to students should be compatible with their knowledge and level of skills. Therefore, it may be appropriate for teachers to know their students well, to provide personalized instruction tailored to their prior knowledge, readiness, and interests. For this reason, teachers should use measurement tools such as pre-tests, monitoring tests and several surveys to determine students' cognitive, affective, and psychomotor behaviors.

Another important aspect is that effective feedback from their classes and learning activities is crucial as it contributes to individuals' greater involvement in the flow experience by providing feedback on the accuracy or inadequacy of their behavior related to the task they are engaged in. However, it is essential to note that receiving feedback directly related to the task they are performing provides the highest level of flow. Therefore, students should be provided with necessary guidance to develop their self-feedback skills.

In order to support students' flow experiences teachers can provide them with the necessary control and autonomy in the learning environment. Allowing individuals to experience a sense of control and independent decision-making over aspects such as the type and duration of learning activities, group formations, task distribution in collaborative work, etc., can lead to greater intrinsic motivation and help them avoid feelings of anxiety and boredom.

Some disciplines, instructional materials and techniques lend themselves more naturally to the planning of learning tasks that facilitate the experience of flow. However, even in subjects that elicit negative attitudes from students, such as dislike, fear, or boredom, teachers can plan their lessons with attention to these principles. By doing so, teachers can help students overcome their negative attitudes towards these subjects, allowing them to enjoy participating in the lessons and having fun while learning.

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CHAPTER II

SCHOOL PRINCIPALS ROLES IN THE EXPLORATION OF TEACHERS’ PERSONAL MASTERY¹

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1. Introduction

The education system is expected to be a system that demonstrates the creation and use of knowledge and develops students’ abilities and achievements. The success of the education system increases with qualified human resources, programs, management, and facilities. Success in the education of students who differ from each other depends on overcoming problems in schools, which are the smallest structure of the education system. However, there are criticisms that students are made to memorize information, that exams are prioritized, and that potential cannot be brought to the fore due to the methods used in the delivery of education and in schools (Çalık & Sezgin, 2005; Özden, 2002). Whereas, in schools, there is a need to train students

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open to learning and innovation to keep up with changes and recognize their differences. Teachers are the most important element of education systems because they process students' individual characteristics. Some factors, such as not improving teacher competencies and not sustaining teacher learning, can reduce the quality of educational activities. As a result, the potential of students, who are the output of education systems, cannot be adequately utilized, and the number of unemployed, unprofessional, and unhappy people is increasing day by day (Babadag & Saribaş, 2015). Therefore, to increase the success of schools, teachers' professional learning should continue, and administrative support is needed in this regard.

The increase in scientific knowledge, changes in the use of knowledge, and the related changes in organizational life cause individual learning to be insufficient, and organizational learning is needed. Organizational learning is the spread of learning activity throughout the work (Doğan & Yiğit, 2015); in other words, it is the continuation of professional learning of all or the majority of employees in the organization. In this regard, personal mastery indicates that learning continues structurally in adult professional or organizational life. The discipline of personal mastery is the ability to look at life from a creative perspective in all areas of life (Senge, 2020). In a sense, it means that all learning in life develops the person and leads them towards creativity. Therefore, it can also be called the art of learning to learn. According to Senge (2020), two main elements constitute the discipline of personal mastery. The first is to see, be aware of, and accept the current situation with all its reality. The second is to set a vision for oneself, that is, to determine where one wants to be and to create the steps to be taken to get there. Personal mastery is the path taken between these two extremes. Individuals who make personal mastery a discipline find themselves in creative learning and development that dominates their whole lives (Senge, McCabe, Lucas, Smith, Dutton, & Kleiner, 2014). According to Senge (2020), personal mastery is the most important and first step in creating a learning organization spirit. A learning organization is a dynamic organization that has the understanding of possessing knowledge together with all members of the organization, using it together, sharing it with those who do not know it in the organization or who are new members, teaching and transferring it to them, and constantly adding and creating new knowledge on top of the known knowledge (Garvin, 2000); creating environments that continuously develop the employees in the organization and thus constantly developing and renewing itself (Gürsel, 1998). In this sense, creating a learning organization spirit in schools is important for the development of teachers' personal mastery.

The personal mastery of teachers in schools as a learning organization is possible by training innovative teachers who continuously improve themselves in their profession, learn to learn, and make teachers' knowledge with this equipment shareable and usable (Can, 2019). According to Doğan and Yiğit (2015), the development of teachers' personal mastery disciplines is important for both educational organization and social life. Legally speaking, supporting "professional development" in Turkey can be considered as the main basis for personal mastery discipline. Professional development is the training activities implemented by the Ministry of National Education for teachers to improve themselves continuously and to protect the dignity of the teaching profession (Ministry of National Education Personnel In-Service Training Regulation, 2022). Failure to support professional development leads to raising individuals who are not suitable for the purposes of schools (Aydın, 2001). According to Güçlü and Türkoğlu (2013), the ability of teachers to overcome their professional deficiencies requires continuous learning to be accepted as a need. On the other hand, as a school organization, the main goal of teachers in the knowledge society is to help individuals learn how to learn. In this sense, identifying and supporting teachers' personal mastery so that they can learn to learn continuously and constantly improve themselves is important for the education system, school and students (Fındıkcı, 2004; Işık & Bahat, 2019). Therefore, school leaders also have a key role at this point.

The school leaders are responsible for the effective use of human resources in the school, monitoring their development, making necessary arrangements (Çalık & Sehitoglu, 2006), and creating opportunities (Aydın, 2007). Therefore, the task of the school leaders is not only to support qualified staff but also to take the necessary measures for the continuous advancement of employees on the job and to make the school environment suitable for this. A qualified service is possible with a qualified staff. Investing in the personal mastery of teachers is an investment in the delivery of education and training. This constitutes an important basis for sustaining organizational learning in the school as a factor that increases the strength of the school.

School leaders' activation of teachers' personal mastery requires first recognizing teachers' areas of mastery and taking this knowledge out of the classroom to be used by the whole school. Senge et al. (2007) state that the first step in change and reform initiatives should generally come from school leaders and that principals should be "teacher leaders and learner leaders." In this sense, school administrators need to determine the direction of change as educational leaders. The responsibility of school leaders is to determine the situation of

the school and the needs of its environment to produce and implement new ideas in a personal or organizational sense that can meet those needs (Erdoğan, 2002; Güçlü & Şehitoğlu, 2006). According to the Social Exchange Theory, organizational members enter into and maintain social relationships with the expectation of being socially rewarded (Lambe et al. 2001). Considering Blau's (1964; cited in Zeng & Ye, 2016) Social Exchange Theory, school leaders are aware of teachers' mastery, allowing them to practice, being open to innovation and change, making teachers feel respected, strengthening friendship relations within the school, and contributing to their pride in their work. On the other hand, according to Nonaka's Knowledge-Based Theory, knowledge undergoes a transformation consisting of socialization, externalization, internalization, and combination processes (Celep & Çetin, 2014). In this sense, if school principals enable teachers to transform their knowledge into open knowledge and share it, teachers who share this knowledge are taken into consideration more, they feel valued, and this knowledge is used among other teachers. From this point of view, teachers' innovative practices that embody their personal mastery contribute to transforming knowledge in schools, students, and society (Külcü, 2018). School principals play an important mediating role in sharing teachers' personal knowledge with the school and should prop the teachers' personal mastery in schools. The principles of Social Capital Theory (Devamoğlu, 2008) explain the social capital of the school with concepts such as 'trust, cooperation, social solidarity, communication networks, reciprocity, voluntary organizations, and collective action.' "Good examples teachers who make a difference, role model teachers, exemplary practices," which are used to emphasize the practices that add difference and value to the school and students by performing the work always done in schools with a different and innovative perspective, are possible with teachers who have developed the discipline of personal mastery. However, not all teachers have sufficient opportunities to demonstrate their personal mastery areas or to develop themselves in their mastery areas, and they even face limitations (Altunay & Başak, 2022). For this reason, school principals need to create a relationship of trust in the school, to pioneer collaborative and collective innovations, and to be aware of this issue.

Reviewing the existing literature demonstrated some studies that can be associated with personal mastery discipline address school principals' or teachers' perceptions of learning organization, learning organization (Akan & Sezer, 2014; Banoğlu & Peker, 2012; Turhan & Yaraş, 2015), learning school (Doğan & Yiğit, 2015; Ghahramanifard, Pashaei, & Mehmandoust, 2013;

Subaşı & Çetin, 2014). In addition, especially personal mastery and teachers and the place of personal mastery in education have been examined (Bui, Ituma, Antonacopoulou, 2012; Hamidi, Toosi, & Tapak, 2018; Settaraming, 2014). However, no study was found in the literature on the role of school principals in determining teachers' personal mastery. Since raising individuals who learn to learn in the education system is important and teachers are the professional group that will realize this, school principals must be aware of teachers' personal mastery. This research is important in terms of both increasing the quality of teachers and the status of the teaching profession and providing solutions for raising more competent individuals by making educational activities more qualified. The main purpose of this study is to explain teachers' experiences in assessing teachers' personal mastery school principals.

2. Method

The study was organized according to qualitative research data collection techniques, and phenomenology design was used. People's behaviors are not only determined by environmental conditions or biological impulses, wants, and needs. Among the factors that determine and shape it is how the person makes sense of himself/herself and his/her environment, that is, his/her phenomenon at that moment. For this reason, in this study, a phenomenological design was used to provide an in-depth understanding of the phenomenon of personal mastery in the education system and to explain teachers' experience with personal mastery of teachers in this context.

The study population is the teachers working in public schools affiliated to the Ministry of National Education in Keçiören district of Ankara province in the 2021-2022 academic year. The sample of the study includes 45 teachers who were selected using the maximum diversity sampling technique, one of the purposive sampling methods. In line with the maximum diversity sampling technique, this study includes teachers from schools in different socioeconomic regions of Keçiören District of Ankara province, different branches, and different school levels to define teacher experiences.

Examining the demographic and school characteristics of the participants, the majority of the teachers participating in the study are female (73.3%) and work at the primary school level (62.2%). Classroom teachers (33.3%) were the majority in terms of branch. We determined that they generally changed between one to five schools (75.5%) and worked with between six to ten principals (73.3%).

2.1. Data Collection Process

The study data were obtained using semi-structured interviews and narrative forms. In the preparation of the interview form, the literature (Akan & Sezer, 2014; Banoğlu & Peker, 2012; Ghahramanifard, Pashaei, & Mehmandoust, 2013; Turhan & Yaraş, 2015) was reviewed, and questions were prepared for the sub-problems of the study. The interview form consists of two parts. The first part includes personal information. In the second part, brief information about personal mastery was given, and the questions were used to be answered. Two questions in the interview form are as follows: “How do you experience school principals determining teachers’ personal mastery?” and “*How do you experience the advantages of school principals determining teachers’ personal mastery emerge for the school?*” The second data collection tool is the narrative form. The second data collection tool was a narrative form. It was used to learn memories about the evaluation of teachers’ personal mastery by the school principals and the memories that left a trace in retrospect.

After preparing the interview form and narrative form, the authors presented the forms to two experts in the field of Educational Administration for review. Then, we made adjustments in line with the opinions given by the experts. Finally, a pilot study was conducted with three teachers, and checking the questions provided comprehensibility of questions.

School principals were contacted to collect the study data, and volunteer teachers were identified. Then, an appointment was requested for face-to-face interviews with the teachers. The interviews were conducted twice in the empty classrooms of the schools or suitable administrator rooms, during the teachers’ free classes, during class hours, and in a quiet environment. Interviews were conducted face-to-face and audio recorded. The audio files were transcribed using an audio-to-text program called Transcriptor.

In the presentation of the findings of the study, the views of the participants were coded without giving their names based on confidentiality. Accordingly, each participant was given a label: “T-Teacher” for teacher, “M-Male” and “F-Female” for gender, “P.S-Primary School,” “S.S-Secondary School” and “HS-High School” for school level, and “MA-Master’s Degree” and “BA-License” for educational level.

2.2. Data Analysis

The data analysis includes content and narrative analysis. Content analysis is a form of analysis in which data and concepts that are similar to each other in scientific research are brought together within the framework of certain themes and codes, organized and interpreted. This study used a content

analysis technique and interpretive approach while analyzing the data obtained from teachers' opinions. Understanding the natural attitudes of the participants requires analysis with an interpretive approach (Altunay & Erol, 2023). In content analysis, the effort is to express the data as a concept and to identify themes that will lead to the definition of the phenomenon under investigation. Therefore, a descriptive expression is used in the presentation of the results. In this context, coding is the first and essential process of analyzing the content of the data in content analysis, which is a qualitative analysis (Altunay & Erol, 2023). For this reason, the research was conducted by paying attention to the steps of naming, categorizing, ensuring validity and reliability, and interpretation.

The data collected with the narrative form were first coded, and then themes were created using the narrative analysis technique. Silverman (1998) stated that understanding where and how the lives of a community are formed and examining the life stories of individuals enables the understanding and institutionalization of its culture and social life (Erol, Özaydın, & Koç, 2010; Toprakçı, Altunay, & Acer, 2019). In this sense, narrative analysis is based on coding the memories of individuals and creating themes. In line with narrative and content analysis, codes were associated and combined with each other, and themes were formed. A total of twelve themes were identified in line with the research problem. The findings obtained from data analysis in line with the research problem are given in Figure 1.

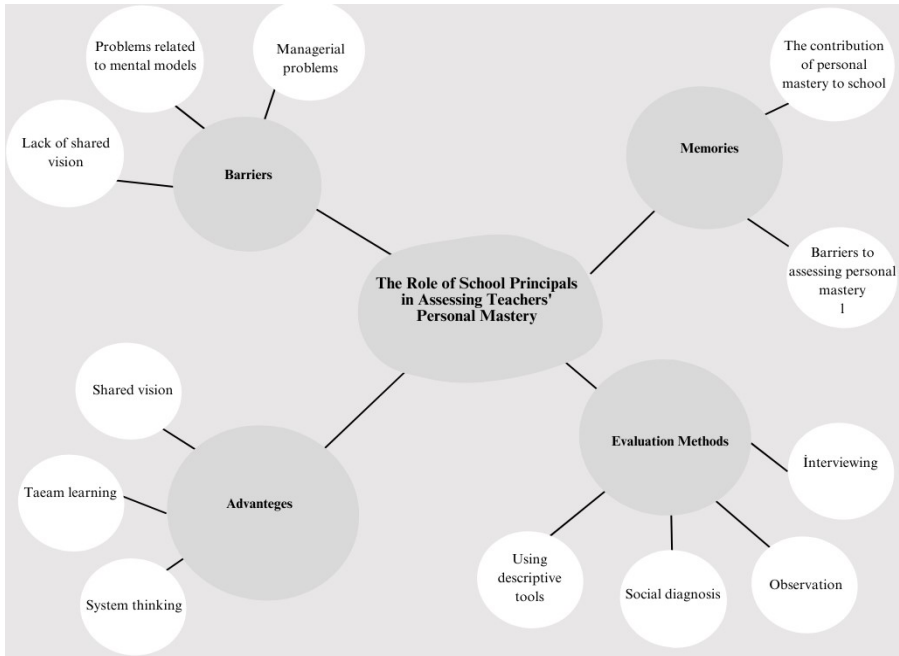


Figure 1. Assessing Teachers' Personal Mastery

3. Results

3.1. School Principals' Evaluation of Teachers' Personal Mastery

Teachers' experiences regarding school principals' methods of evaluating teachers' personal mastery were analyzed. As a result of the data analysis on "school principals' evaluating of teachers' personal mastery," four themes emerged: "interviewing," "observation," "social diagnosis," and "using descriptive tools."

Interviewing: The theme of "interviewing (f=82)" was emphasized the most regarding principals' evaluation of teachers' personal mastery. The theme "interviewing" includes the codes "conducting meetings (f=10)", "individual interviews (f=21)", "parent interviews (f=13)", "student interviews (f=20)" and "colleague interviews (f=18)". The "individual interview" code stood out the most among these codes. The "individual interview" code includes the opinions of school principals about communicating with teachers one-on-one to identify teachers' personal mastery, getting information from teachers face-to-face, and revealing teachers' mastery by asking and listening to teachers directly. An excerpt from the teachers' views on the "individual interview" code is as follows:

"Many of us also have much different information in our files. The best way to get information about a person is to ask him or her in person. We should use the individual interview." T25, F, PS., BA.

Within the scope of the theme of "interviewing," "Student interviews (f=20)" stands out as the second emphasized code for school principals' determination of teachers' personal mastery. "Student interviews" includes teachers' views on conducting interviews with students while determining their personal mastery. Accordingly, an excerpt from the opinions of the teachers regarding the code "student interviews" is as follows:

"Getting information about the teacher through a trusted person is right. The students are naive and innocent. When asked what the teacher's favorite thing was, they easily said these things. It worked especially well with primary school students." T26, F, SS., BA.

As a result, in terms of principals' evaluation of teachers' personal mastery, the theme of "interviewing" includes the view that direct face-to-face interviews with school members are the most effective method. The "interviewing" theme shows that effective communication is critical in supporting teachers' development. The school principal's use of different resources in structuring teacher development can optimize the development process.

Observation: The second theme regarding school principals' evaluation of teachers' personal mastery is the theme of "observation." As a result of the analysis, the codes "lesson observation (f=18)" and "teamwork observation (f=16)" were found within the theme of "observation (f=34)". Among these codes, the code "lesson observation (f=18)" stood out the most. The code "lesson observation" includes school principals' observing teachers in lessons to determine their different and effective practices compared to other teachers in order to identify teachers' personal mastery. An excerpt from the opinions of the teachers regarding the "lesson observation" code is as follows:

"For the management, it is necessary to attend the class. Because at least they see the teacher's attitude, demeanor, and communication. Mastery is reflected in the teacher's speech. In other words, a teacher who is involved in music reveals this in some way while teaching. Or a teacher who is involved in sports reveals this. I like to watch cartoons when I write examples, so I like to use the names of cartoon characters as examples in programming. So when the principal attends the class, he sees examples that reveal each teacher's mastery." T27, F, HS., MA.

Another code emphasized under the theme of "observation" is "observing teamwork (f=16)", which includes the opinions of school principals about collecting information by observing teachers outside of class, during breaks, activities, and teamwork in order to determine teachers' personal mastery. Accordingly, an excerpt from the teachers' views on the "observing teamwork" code is as follows.

"Our school was formerly managed with total quality (T). The principal had selected teachers to work in teams. Because this school is a school of 200 people, it was very difficult to manage it with a parent meeting or a teachers' meeting. But we did very good work in small teams with small meetings. The principal used this method because he knew the structure of the school, and we were familiar with the work." T4, F, HS., BA.

The theme of "observing" involves principals gathering information by observing teachers inside and outside the classroom. It was based on identifying and evaluating teachers' personal mastery and revealed that principals used this observation practice to gain valuable information about teachers' attitudes, communication, and skills in different areas.

Social Diagnosis: The third theme regarding the views on “school principals’ evaluation of teachers’ personal mastery” is the theme of “*social diagnosis*.” Within the theme of “*social diagnosis*(f=30)”, the codes “*approving teachers’ requests* (f=7)”, “*encouraging* (f=12)”, and “*chatting* (f=11)” were found. The most emphasized code under this theme is “*encouragement* (f=12)”. The “*encouragement*” code was related to the opinion that if school principals have encouraging words, behaviors, or attitudes towards teachers and meet the demands of teachers, teachers reveal their personal mastery and tend to work more. Accordingly, an excerpt from the opinions of the teachers regarding the “*encouragement*” code is as follows:

“ ... the school principal should encourage teachers. He should appreciate teachers who make new applications. I have also seen that our teachers really expect appreciation. As the school administrators appreciate them morally, the teachers are eager to increase their own interests. They go out and talk about it, saying, “I had such and such a talent. When a sense of belonging emerges, they share their talents and want to do it”.” T41, M, SS., BA.

Another code emphasized within the scope of the “*social diagnosis*” theme is “*chatting* (f=11)”, which includes the opinions of school principals about collecting information by creating a purposeful chat environment with teachers in all conditions such as in-school, out-of-school, teachers’ room, etc. in order to identify their personal mastery. An excerpt from the teachers’ views on the “*chatting*” code is as follows:

“This is most evident in the teachers’ room or when the teacher comes to the principal’s office and they have a conversation with him/her, trying to get to know the teacher individually. Because if the principal does not chat and communicate with the teacher, how can he/she know whether that teacher plays the saz or plays tennis, is interested in origami, or how I can use this at school, or this teacher understands information technologies very well and is interested in it, he/she cannot learn these things. When he/she cannot learn, he/she does not know how to use it at school.” T7, F, SS, BA.

The theme of “*social diagnosis*” encompasses the evaluation of personal mastery by emphasizing the importance of principals’ encouraging words, behaviors, and interests of teachers. The “*social diagnosis*” theme reflects that principals care about teachers, prefer to gather information by supporting

them with words, behaviors, and attitudes, and try to get to know their personal interests and abilities more closely to enable them to demonstrate their mastery. The aim is to ensure that teachers are willing to share their interests.

Using Descriptive Tools: The fourth and final theme regarding the views of school principals on “*school principals’ evaluation of teachers’ personal mastery*” is the theme of “*using descriptive tools*.” Within the theme of “*using descriptive tools (f=29)*”, the codes “*examining CVs (f=22)*” and “*using questionnaires (f=7)*” were found. The most emphasized code under this theme was “*CV review (f=22)*”. The opinions of teachers regarding the code “*CV review*” related to the fact that principals’ collecting information in the form of looking at teachers’ personal files, examining Ministry of Education Information System (MEBBİS) information, learning about their past work in their previous schools, and evaluating their past work documents helps to determine teachers’ personal mastery came to the fore. Accordingly, an excerpt from the opinions of the teachers regarding the “*resume review*” code is as follows:

“When I go to a school, my personal file goes to the school. There is necessary information in it. For example, my former principal had made notes about me there. It was also very good for my new principal. Because sometimes we do not express ourselves to the principal. Sometimes, it may not be nice to say that I am doing these things. However, it is more effective when my old principal expresses these things. But I think getting information would also be a good method. He gets information about the teacher by looking at our MEBBİS information. He gets to know the teacher better. He can offer opportunities for his own teachers to improve themselves. The principal uses teachers’ talents better for the school.” T44, F, SS., BA.

The last code emphasized under the theme of “*using descriptive tools*” was “*using questionnaires (f=7)*”. The code “*using questionnaires*” includes teachers’ views on the use of a scientific and standardized scale as a method of determining teachers’ personal mastery. An excerpt from the teachers’ views on the code “*using questionnaires*” is as follows:

“Sometimes you can also ask the teacher. Do you have a different interest? There is also a questionnaire for teachers. Do you have different talents? Do you have any hobbies? The principal finds out the hobbies and wishes of the first five teachers. They have

demands. Then, he sits down with the teacher and negotiates. What can I do as a manager? What are my possibilities? How can I offer opportunities? How can I guide you? This is how he learned about our demands. Actually, principals should not be behind closed doors.” T41, M, SS., BA.

Finally, the theme of “using descriptive tools” emphasizes using data collection sources such as documents or questionnaires by school principals to collect information about teachers. Using descriptive tools allows for a more comprehensive assessment of teachers’ professional knowledge but also their personal characteristics. Principals’ use of these methods is expected to be more effective in understanding teachers’ individual abilities and interests, enabling principals to provide better guidance.

3.2. Advantages of Assessing Teachers’ Personal Mastery

Teachers’ experiences of the advantages of principals’ assessment of teachers’ personal mastery were examined. As a result of the data analysis on “*the advantages of principals’ evaluation of teachers’ personal mastery for the school,*” the themes of “*shared vision (f=63)*”, “*system thinking (f=47)*,” and “*team learning (f=29)*” emerged.

Shared Vision: The theme of “*shared vision (f=63)*” was emphasized the most regarding the advantages of principals’ evaluation of teachers’ personal mastery. Within the scope of the “*shared vision*” theme, the most emphasized codes related to the advantages of principals’ assessment of teachers’ personal mastery for the school were “*formation of school vision (f=10)*”, “*increase in school reputation (f=26)*”, “*social development of students (f=9)*”, “*academic achievement goal (f=13)*” and “*finding resources (f=5)*”. Among these codes, the code “*increasing school reputation*” was found to be prominent. The code “*increasing school reputation*” emphasizes that the school principals’ identification of teachers’ personal mastery of their personal skills enables teachers to use these skills, thus increasing the school’s reputation in the eyes of all school stakeholders, thus increasing the school’s success in all areas such as academic, social, etc. and becoming a sought-after and desired school. An excerpt from the opinions of the teachers regarding the code “*Increased school reputation*” is as follows:

“The name of the school becomes known thanks to the teachers passing on their personal mastery to the students and doing some work. It has become a well-known school both in the region and the

neighborhood, which is why the demand has increased. The student profile changes accordingly. The view of the national education also changes because the profile of the students in that school has increased, and their achievements have increased, and something is published in the national education in certain months. ... Therefore, the school's success in this regard changes their attitude towards the school." T1, F, SS., BA.

The other code emphasized under the theme of “*shared vision*” was “*academic success goal*” (f=13), which was the second most emphasized code in terms of the advantages of principals’ assessment of teachers’ personal mastery. The code “*academic achievement goal*” is related to the fact that principals’ *determining teachers’ personal mastery and using teachers’ mastery* definitely affect students’ academic achievement and, thus, the school. Accordingly, an excerpt from the teachers’ *views on the “academic success goal”* code is as follows.

“Identifying a teacher’s personal mastery contributes a lot to the school principal and the school’s achievement in percentile and arithmetic. The current educational arm activities are becoming much more functional. It increases its effect. The school is successful under the guidance of the student-teacher. It also reflects very positively on the general atmosphere of the school. I have a dream that this will increase.” T2, F, SS., BA.

As a result, the “*shared vision*” theme emphasizes that principals’ assessment of teachers’ personal mastery contributes to creating a common vision for the school and increasing success. The “*shared vision*” theme emphasizes that principals identify teachers’ personal mastery and encourage them to use this mastery so that the quality of human resources is highlighted and these human resources support common goals for student development in their schools.

System Thinking: The second theme emphasized in terms of the advantages of principals’ assessment of teachers’ personal mastery for the school is “*system thinking* (f=47)”. Within the scope of the “*system thinking*” theme, the codes “*increasing motivation* (f=17)”, “*developing a positive climate* (f=6)”, “*solving problems* (f=4)”, “*increasing job satisfaction* (f=16)”, “*appreciating teachers* (f=4)” were found. Among these codes, “*increasing motivation* (f=17)” was the most emphasized code. *Increasing motivation* includes the views that school principals’ evaluation of teachers’ personal mastery increases teachers’

feeling of being cared for and their motivation. An excerpt from the teachers' views on the code "*Increased motivation*" is as follows:

It brought life to the school. It also increased the teacher's motivation. When they come to school, the teacher spends more quality time. Working hours became more quality. Moreover, he/she is freed from his/her own stuckness, and he/she can breathe. It is also a process that satisfies itself. ." T7, F, SS., BA.

The other code emphasized under the theme of "*system thinking*" was "*increased job satisfaction (f=16)*". It includes the views that school principals' assessment of teachers' personal mastery, teachers' use of their personal mastery, and consequent appreciation and admiration make teachers work more enthusiastically. Accordingly, an excerpt from the opinions of the teachers related to the code "*increased job satisfaction*" is as follows:

"It was good that the school administration knew the characteristics of the teacher: One of our teachers was already very interested in music and had a background in folk dances. She took that activity in the sharing. I took the theater activity, and the other teacher took the children's games activity. The administration did not need to say that the 3/A class should do this and the 3/B class should do that. Those who wanted to play games went to the game group; those who wanted to play theater came here. Those who wanted to play folk dances went to a group... Did the students enjoy it? Both the teachers enjoyed it, and in the end, the administration enjoyed it." T38, M, PS., BA.

The theme of "*system thinking*" includes the reflection of the school principals' bringing out the personal mastery of the teachers, the contribution of the teachers' work and results to the school as a whole, and the reflection on the climate of the work environment. The theme of "*Systems Thinking*" includes school principals' assessment of teachers' personal mastery, as well as changes based on sharing among teachers and ultimately supporting school processes. Teachers working in an environment where they are cared for increases their job satisfaction, makes them more motivated, creates a cyclical effect, and serves the need for more mastery.

Team Learning: Regarding the advantages of principals' assessment of teachers' personal mastery of the school, the third theme is "*team learning.*" Within the theme of "*team learning (f=29)*", the codes "*encouraging professional*

development (f=6)”, “*being a role model in knowledge sharing (f=13)*”, “*using knowledge (f=4)*”, “*developing projects (f=6)*” emerged. Among these codes, “*being a role model in knowledge sharing (f=13)*” was the most emphasized code. The code “*being a role model in knowledge sharing*” includes the views that teachers encourage each other by being role models for each other, and thus, teachers who have talent but are not aware of it, who have the desire but lack the courage or willingness are discovered and provide advantages to the school. An excerpt from the teachers’ views on the code of “*being a role model in information sharing*” is as follows.

“When teachers share the activities they have done, it creates enthusiasm among teachers, or “my friend did it, and it was very good. It was appreciated.” He is doing something so that I can try to find something, try to do something. Maybe that is how he can reveal his hidden mastery. I did a project. It is even being broadcast on NTV right now. A teacher friend of ours had a project called Anatolian Tales. He received a letter from National Education and was thanked. I see that something good is being done. They start thinking about what they can do. It makes us think, too. It encourages us.” T9, M, PS., BA.

Another code emphasized under the theme of “*team learning*” was “*encouraging professional development (f=6)*”. The code “*encouraging professional development*” includes teachers’ views that teachers’ desire to improve themselves increases as they reveal their personal mastery and produce something, so identifying personal mastery in terms of encouraging professional development provides advantages to both the teacher and the school. An excerpt from the teachers’ views on the code “*encouraging professional development*” is as follows:

“It is an advantage for her to realize her talents in her future life and to professionalize in the field of her choice. Turning to another field also has a professional contribution. It also contributed to professional development. For example, we have a friend who is a math teacher but plays handball very well. It is important for the school that it is not limited to a single field.” T1, F, SS., BA.

Finally, the “*team learning*” theme emphasizes that principals’ assessment of teachers’ personal mastery encourages teachers and school members to learn and develop. *Team learning* emphasizes that principals’

assessment of teachers' personal mastery provides an advantage to the school by supporting teachers in realizing their own talents and professionalizing in various fields of teamwork. Encouraging teachers to develop their personal mastery contributes to teachers' inspiration from each other and knowledge sharing among teachers.

3.3. *Barriers to Assessing Teachers' Personal Mastery*

Teachers' experiences regarding the barriers to principals' assessment of teachers' personal mastery were analyzed. As a result of the data analysis on the barriers to principals' assessment of teachers' personal mastery, three themes emerged: "*lack of shared vision*," "*managerial problems*," and "*problems related to mental models*."

Managerial Problems: The theme of "*managerial problems* (f=85)" was emphasized the most regarding teachers' experiences regarding the barriers to principals' assessment of teachers' personal mastery. Within the theme of "*managerial problems*," the most emphasized codes related to the barriers to school administrators' assessment of teachers' personal mastery were "*lack of observation* (f=16)", "*dysfunctional boards* (f=8)", "*lack of democracy* (f=19)", "*heavy workload* (f=11)", "*lack of incentives* (f=8)", "*lack of administrative knowledge* (f=15)". Among these codes, "*lack of democracy*" stood out. The code "*lack of democracy*" emphasizes that the biggest obstacle for school principals to assess teachers' mastery is that teachers perform routine practices because the school principal does not exhibit a democratic attitude in administration. An excerpt from the teachers' views on the "*lack of democracy*" code is as follows:

"If a principal is not consistent, teachers will eventually find out what is happening in the school. If something is to be decided, we have a general assembly, which has the authority to convene urgently. They convene there and get opinions. They are changing the barbed wire, having a soil area, etc. These things should not be decided only by the school principal. I should definitely be consulted. It should be democratic, and decisions should be made together. That is the purpose of general assemblies. It is not what I said, and you do it. If you do not do it, I will punish you." T8, M, PS., BA.

Another code under the theme of "*managerial problems*" is "*lack of observation*" (f=16), which is the second most emphasized code related to the obstacles for school principals to determine teachers' personal mastery.

The code “*lack of observation*” emphasizes that school principals’ efforts to determine teachers’ personal mastery are limited; they do not make enough observations by managing the school from their rooms and do not know the teachers. Accordingly, an excerpt from the opinions of the teachers regarding the “*lack of observation*” code is as follows:

“The school administrator did not leave his office. Since there was no observation, the biggest weakness was managing the school and making decisions based on incoming documents.” T3, F, SS., BA.

The theme of “*managerial problems*” is an important dimension regarding barriers to school administrators’ assessment of teachers’ personal mastery. The theme of “*managerial problems*” describes situations such as school principals’ lack of knowledge, wrong attitudes, or inadequacy in determining teachers’ personal mastery of school management. The lack of democratic participation of teachers in decision-making processes leads teachers to routine practices, which prevents teachers from fully realizing their potential. The fact that school principals are stuck in their offices limits their efforts to recognize and evaluate teachers. Overcoming these barriers can improve the interaction between school administrators and teachers, thus enabling teachers to utilize their potential better.

Problems Related to Mental Models: The second theme regarding the barriers to principals’ assessment of teachers’ personal mastery in terms of school was the theme of “*problems related to mental models.*” As a result of the analysis, the codes “*lack of motivation (f=7)*”, “*conflict among members (f=23)*”, “*burnout (f=6)*”, “*lack of trust (f=13)*”, “*lack of communication (f=6)*” emerged within the theme of “*problems related to mental models (f=54)*”. The code “*conflict between members (f=23)*” stands out among these codes. *Conflict among members* includes the opinions of teachers that conflict among members constitutes an obstacle to identifying personal mastery in assessing teachers’ personal mastery. An excerpt from the opinions of the teachers regarding the “*conflict between members*” code is as follows:

“In an environment where there is conflict, there may be behaviors of harming, sabotaging, and abusing each other. It is already a problem if the work is not appreciated. It is impossible for personal mastery to emerge or to become widespread, even if it is known. They do not want to do something for the school. The emotional state of an individual in conflict is negative. I saw that the work was completely disrupted.” T14, M, SS., MA.

The other code emphasized under the theme of “*problems related to mental models*” is “*lack of trust (f=13)*”. The “*lack of trust*” code includes teachers’ views on the lack of trust between school principals in determining teachers’ personal mastery, the lack of trust between the members, the lack of trust between the administration and the teacher, or, on the contrary, an environment of distrust that prevents the determination of personal mastery. An excerpt from the teachers’ views on the “*lack of trust*” code is as follows:

“Teachers show these characteristics more if they think the school principal or the administration will support them. Moral support is important for the teacher, especially knowing that the school principal is supportive in this regard and effectively reveals these characteristics. At least they are more open to the principal. However, if there is mistrust, then we cover it up. We do not bring them out. The spirit of the person in management directly reflects on the spiritual nature of the school.” T36, F, PS., BA.

Finally, the theme “*problems related to mental models*” includes social-cognitive problems involving principals’ or teachers’ perceptions, thoughts and feelings about each other in determining teachers’ mastery. The theme “*Problems with mental models*” points out that the individual understandings of school members make it difficult to identify personal mastery, leading to a lack of trust and teachers’ avoidance of unlocking their potential. Barriers need to be overcome for a more effective assessment process.

Lack of Shared Vision: The last theme that came to the forefront regarding the barriers to principals’ assessment of teachers’ personal mastery is the theme of “*lack of shared vision.*” As a result of the theme analysis, the codes “*maintaining the minimum standard (f=15)*”, “*not caring about professional development (f=16)*”, and “*being closed to innovations (f=13)*” were found within the theme of “*lack of shared vision (f=44)*”. The code “*not caring about professional development (f=16)*” stood out among these codes. The code “*not caring about professional development*” includes teachers’ opinions about school principals’ unwillingness to allow teachers to participate in the necessary training activities for their professional development or not providing them with opportunities because they think that school principals will disrupt the lessons at school, problems will arise, it will be difficult to control the school and the teacher, and more work will be done for teachers

to determine their personal mastery. An excerpt from the opinions of the teachers related to the code of “not caring about professional development” is as follows:

“They prevent them from identifying their personal mastery. Sometimes, they also prevent teachers from developing their personal mastery or some of their curiosities. For example, there are seminars and various courses, and sometimes these courses coincide with the academic year. and most school principals look negatively at going to these courses; they create obstacles such as disrupting our lessons and what the students will do during that time. I wanted many courses but could not take them for these reasons:” T1, F, PS., BA.

Another code emphasized under the theme of “*lack of shared vision*” is “*understanding of maintaining the minimum standard (f=15)*”, which includes the views that school principals’ assessment of teachers’ personal mastery is hampered by factors such as school principals’ traditional mindset of seeing schools as places where only lessons are taught and academic achievement is focused, where lessons are routinely entered and left, and their priorities are different. Accordingly, an excerpt from the opinions of the teachers regarding the “*understanding of maintaining the minimum standard*” code is as follows:

“There is a problem with the way it is managed. What is a school? It is a place of education, a place of teaching. It is as if nothing else can be done. Only lessons are taught. It is always a lesson, and the fact that they cannot get out of such a mentality prevents this. I think this is not because of the principals but because of the assignments that come from the superiors, which we think must be done. “T36, F, PS., BA.

Finally, the theme “*problems related to mental models*” includes social-cognitive problems involving principals’ or teachers’ perceptions, thoughts and feelings about each other in determining teachers’ mastery. Regarding barriers to principals’ assessment of teachers’ personal mastery, the lack of professional development and the maintenance of a traditional approach by principals create challenges. Creating a clearer vision that school members embrace supports a joint effort on school culture and goals.

3.4. Teachers' memories of their personal mastery

Teachers' memories of school principals' evaluation of teachers' personal mastery were analyzed. As a result of the analysis of teachers' memories of school principals' evaluation of teachers' personal mastery, two different themes, namely "*the contribution of personal mastery to the school*" and "*obstacles to determining personal mastery*," emerged as different from the other sub-problems.

The Contribution of Personal Mastery to School: The theme of "*the contribution of personal mastery to the school*" was first formed in the teachers' memories regarding the school principals' evaluation of their teachers' personal mastery. The sub-themes that emerged from this theme were "*shared vision*," "*social contribution*," and "*team learning*." Among these sub-themes, "*shared vision* (f=18)" was the most emphasized sub-theme. Within the sub-theme of "*shared vision*," the codes "*student development* (f=6)", "*increasing school reputation* (f=8)", and "*professional development* (f=4)" were found. Among these codes, "*the code for increasing school reputation* (f=8)" was the most emphasized code. The code of "*increasing school reputation*" includes teachers' opinions that when school principals enable teachers to reveal and use their personal mastery, the school's name is heard regarding education and training activities, and the school reputation increases, thus increasing the student profile and success. An excerpt from the teachers' views on the code of "*increasing school reputation*" is as follows:

"When I started this profession, I was a teacher in my hometown, where the principal was a person who attached great importance to school activities. He was incredibly supportive of the visual arts teacher organizing an exhibition and the English teacher organizing an exhibition in English. This was a school in the district, and it was very well received. The parents came and saw it, and there were works made by the students, such as paintings and English charts. This is a memory I will never forget." T16, F, SS., BA.

The second sub-theme emphasized under the theme of "*contribution of personal mastery to school*" was the theme of "*social contribution* (f=16)," and the most emphasized codes related to this theme were "*increased motivation* (f=10)", "*job satisfaction* (f=2)" and "*doing social activities* (f=4)". The "*increased motivation*" code includes teachers' views that school principals work on teachers' personal mastery, encouragement of teachers, and encouragement of teachers improve teachers' motivation to work and that this motivation is

reflected in the students. An excerpt from the teachers' views on the "*increase in motivation*" code is as follows:

"At that time, we were in a project. I felt really happy. I mean, I worked from 7:30 p.m. until 7:30 or 8:00 p.m. School hours ended at 3:00 p.m., and then we continued to work. We were tired, but that happiness was completely different." T1, F, SS., BA.

The last sub-theme that emerged under the theme of "*contribution of personal mastery to the school*" was "*learning as a team (f=15)*". Within the scope of this sub-theme, the codes of "*instructional cooperation (f=6)*", "*project preparation (f=5)*", "*information sharing (f=4)*" were reached. The "*instructional collaboration (f=6)*" code was the most prominent among these codes. The code of "*instructional collaboration*" includes teachers' views that school principals' identification of teachers' personal mastery in their teaching experiences creates opportunities for teachers to work with each other in teaching processes. An excerpt from the teachers' views on the code of "*instructional collaboration*" is as follows:

"In vocational high schools, the class was divided into two or three. A teacher would teach in each group. Because I had good communication with the class, I taught alone. Because our informatics teacher spoke English well, I asked him to do European Union projects. The principal agreed. When the school went to Germany and the Netherlands with EU projects, the number of students attending English courses increased. The principal continued to work in cooperation with parents and teachers." T14, M, SS., MA.

As a result, in the theme of "*contribution of personal mastery to the school*," it was emphasized that school principals' assessment of teachers' personal mastery reinforces team learning among teachers and enables teachers to cooperate, which increases the motivation of teachers and students in the school, improves the face of the school, the quality of education and contributes to the school.

Barriers to Assessing Personal Mastery: The second theme that emerged from the data analysis on "*experiences of school principals' assessment of teachers' personal mastery in teachers' memories*" is the theme of "*barriers to assessing personal mastery*." The sub-themes that emerged within the scope of this theme were "*problems of creating professional knowledge (f=14)*" and "*problems related to mental models (f=11)*". The codes that emerged for

the sub-theme of “*professional knowledge building*” problems were “*lack of observation (f=2)*”, “*the principal’s lack of knowledge (f=4)*”, “*lack of democratic management (f=4)*”, “*lack of initiative (f=4)*”. Among these codes, the “*administrator’s lack of knowledge*” code was the most emphasized code. It includes teachers’ views that there are some deficiencies in school principals’ identification of teachers’ personal mastery in their experiences and that this is mostly due to the inadequacies related to school principals’ managerial qualifications. An excerpt from the teachers’ views on the “*the principal’s lack of knowledge*” code is as follows:

“I have a negative memory. A young teacher did sports activities. I thought discussing it on the teachers’ bulletin board and displaying the photos in the teachers’ room would be useful. We thought it would be useful to make a bulletin board and hang it on the students’ bulletin boards to show all the work of good teachers to other teachers. However, this is not always going to get supported. The vice principal was struggling with his own work. He filled his time with them. That is why the vice principal had no time to spare. However, I personally tried to do my best even if I did not get support. T14, M, SS., MA.

Another sub-theme within the theme of “*barriers to assessing personal mastery*” was the sub-theme of “*problems related to mental models (f=11)*”. Within the scope of this theme, the codes “*information retention (f=4)*”, “*conflict (f=4)*”, “*feeling of insecurity (f=3)*” were found. Among these codes, the code “*withholding information*” stood out. The “*withholding information*” code includes teachers’ views that teachers hide their mastery from the administration or each other in terms of identifying the personal mastery of teachers that they avoid sharing information, especially due to reasons related to the attitudes of school principals, and that information losses occur. An excerpt from the teachers’ memories related to the “*withholding information*” code is as follows:

“The director was honored to receive a certificate of appreciation from the Governor’s Office. When he received your appreciation for two years in a row, he said let us do it for another year, and we said we would not do it anymore after the attitude there. So we had a tension there. I mean, in the third year, because he did not provide that support again and caused us much trouble, I did not give the documents I had when I was appointed to another school. I did not leave them at the school. Because my teacher friends working there

did not want them, I prepared the video footage, and he said, please do not leave it. If only the school principal had been with us, we could have done this work together with him.” T27, F, HS., MA.

The theme “*Barriers to assessing personal mastery*” includes barriers that arise due to principals’ lack of knowledge, wrong attitudes or inadequacies in managing schools, and social-cognitive problems, including principals’ or teachers’ perceptions, thoughts, and feelings about each other.

4. Conclusion: A Preliminary Model of Teachers’ Personal Mastery

In this study, which examined teachers’ views on the assessment of teachers’ personal mastery by school principals, firstly, the themes of “*interviewing,*” “*observation,*” “*social diagnosis,*” and “*using descriptive tools*” were found in school principals’ assessment of teachers’ personal mastery. It was revealed that school principals tended to “*interview*” most in assessing teachers’ personal mastery. The findings of this study are similar to the findings of Güçlü and Türkoğlu (2003). Accordingly, they found that teachers expect their opinions to be consulted and evaluated about the plans within the school, but the practices of consulting teachers’ opinions by school principals are low. The finding that almost all principals and teachers want more favorable conditions, especially for personal development, and that a significant deficiency is experienced in the discipline of “*Personal Mastery*” overlaps with the findings of this study. Again, in Altunay’s (2020) study, it was found that school principals’ course supervision practices were very low. This finding characterizes the lack of school principals in determining the personal mastery of teachers because principals do not conduct lesson audits most of the time. However, according to the perceptions of school administrators and teachers, Doğan and Yiğit (2015) found that the dimension of “*Personal Mastery*” was at the level of “*Strongly Agree*” and that the dimension of personal mastery was perceived at a higher level than other sub-dimensions. In this context, these results showed that school principals and teachers perceived themselves at a high level in terms of using their personal abilities. From a theoretical perspective, based on Nonaka’s knowledge management model, knowledge goes through some transformations. According to Nonaka, the externalization of knowledge is the most crucial point in knowledge exchange. Because externalization is where tacit knowledge is transformed into new, explicit knowledge that everyone can use (Celep & Çetin, 2014), the knowledge that starts in the individual is socialized through some channels and returns to individuals in new and different structures (Külcü, 2018). The important thing is to transform tacit knowledge into explicit knowledge.

In this respect, the responsibility of school principals in the socialization and communication of knowledge in schools, that is, in transforming tacit knowledge into explicit knowledge, is to help teachers reveal their tacit knowledge, that is, their personal mastery. Our results demonstrated that school principals do not have very high expectations or efforts in the dimension of being aware of and caring about tacit knowledge, that is personal mastery. School principals who care about personal mastery used interviewing the most in determining teachers' personal mastery, this result may be related with that they believe that individuals can learn the most accurate information from themselves, lack trust in secondary sources, and view that sources of bias of different sources of information other than the individual.

The themes of "*shared vision*," "*system thinking*," and "*team learning*" were found concerning the advantages of principals' assessment of teachers' personal mastery. Of these themes, the most emphasized theme of "*shared vision*" is that revealing teachers' personal mastery will lead teachers to a common vision and purpose. In teachers' memories, the most emphasized sub-theme in the advantages of principals' assessment of personal mastery of teachers is "*learning as a team*." It has been shown that school principals' assessment of teachers' personal mastery contributes to school employees' tendency to learn together. In Aksu's (2013) study, the level of perception of learning organization characteristics in schools was high among administrators and medium among teachers. According to the administrators, there is teamwork in schools, while teachers' views are low. In Subaş and Çetin's (2014) study, the average of their perceptions of team learning was lower than their perceptions of the personal dominance sub-dimension. Teachers found the disciplines of the learning school high concerning themselves and low concerning their institutions. Kırca's (2019) study found a significant positive relationship between learning school and teacher morale. However, teachers' perceptions of the learning school showed the highest level of personal mastery and the lowest level of mental models. Unlike the findings of this study, Ghahramanifard, Pashaei, and Mehmandoust (2013) found that public high schools need high levels of "personal mastery" and "system thinking" components of the learning organization to become learning schools. In Akan and Sezer's (2014) study, mental models and team learning sub-dimensions had the highest values for schools to be learning organizations but shared vision and personal mastery sub-dimensions had the lowest. Similar to the findings in the literature, Senge's (2020) learning organization theory emphasized that the learning organization is realized by giving importance to personal learning in organizations. Looking at personal

learning as the individual side of mental capital and supporting the development of personal mastery contributes to the school. On the other hand, according to the mental capital model (Edvinsson & Sullivan, 1996), the concept of mental capital is called “knowledge transformed into value.” If organizations exclude their members and do not allow them to be assertive, it does not seem possible to have expectations from their employees. In this sense, the performance of the school increases to the extent that employees demonstrate their individual skills and competencies. The literature and this study show that school principals expect academic success in the education process or try to end the day without any problems. The reason for this is that school principals’ priorities are the physical appearance of the school rather than the content of education and that they do not attach importance to personal mastery; therefore, the use of personal mastery is insufficient, and the common vision in schools is low due to differences in perspective. In this regard, school principals’ encouragement of personal mastery leads to forming a common perspective and vision in schools.

The themes of “*managerial problems*,” “*lack of shared vision*,” and “*problems related to mental models*” regarding the barriers to the assessment of teachers’ personal mastery were found. Among these themes, the theme of “*managerial problems*” emerged as the most emphasized theme. In this theme, obstacles such as lack of observation by school principals, dysfunctional boards, heavy workload, lack of incentives, lack of managerial knowledge, and lack of democracy were found. On the other hand, the theme of “*problems of building professional knowledge*” regarding the obstacles to evaluating personal mastery was prominent in the memoirs of teachers. The inability of school principals to collect sufficient and necessary information about school members prevents teachers from assessing their personal mastery. According to the findings of Altunay’s (2020) study, the fact that school principals indicated their level of demonstrating lesson supervision behaviors as “Frequently” and “Always,” i.e., positively, while teachers indicated their level as “Never” and “Sometimes,” i.e., negatively, showed that there are deficiencies related to principals’ lesson supervision. Based on the findings, managerial deficiencies such as school principals not conducting regular lesson supervision and observation and not being objective prevent teachers from identifying their personal mastery. According to another study, Torokoff and Mets (2008) found that staff development methods were only partially implemented in the area of personal mastery, which is in line with the findings of this study. The findings of Memduhoğlu and Kuşci (2012) show that self-development and teachers who want to develop themselves are generally valued in schools, but written resources are rarely provided for this

and that school employees are generally valued but this does not always happen, and adequate support is not provided are similar to the findings of the current research. Akan and Sezer's (2014) research findings found the lowest mean values in the shared vision and personal mastery sub-dimensions. Participants thought that school staff are generally able to express their opinions freely, but innovations for improvement in schools are limited. As stated in the ERG Report (2021), despite the profession's difficulties, some teachers do their best, but their infrastructure and competencies are insufficient. Teachers feel under pressure both pedagogically and technologically. Teachers need to be empowered and supported. When "Social capital theory" (Putnam, 1993) is taken into consideration in explaining the findings related to personal mastery discipline, social capital includes concepts such as 'trust,' 'cooperation,' 'social solidarity,' 'communication networks,' 'reciprocity,' 'voluntary organizations,' 'collective action.' These concepts are the gains created by human relations (Devamoğlu, 2008). Teachers who create activities in schools using different and innovative methods and who strive to give students a different perspective are individuals who have personal mastery of discipline and increase the social capital of schools. We may infer from the literature and our results that school principals are unaware of the importance of personal mastery, cannot distinguish good practices or do not attach importance to them.

As a result, teachers' views and experiences on the contribution or reflection of teachers' personal mastery of school, teachers, education, training, and students were evaluated, and results revealed that the participants had different experiences. According to Szulanski's (1996) research, due to a lack of personal connection, trust, and motivation, people do not transfer their skills, competencies, and knowledge, in short, their personal mastery, unless there is a clear and necessary reason, and learning among members is restricted. In this context, efforts to reintroduce good practices and routine tasks in schools with a creative perspective enable the sharing of personal mastery, bring a different perspective to the school and students, add value to the school, and increase the social capital of the school. For this reason, school principals need to carry out activities such as intra-organizational benchmarking, helping a friend, site visits, and problem-solving meetings, which are activities aimed at getting to know school members and their personal mastery. Also, Settaraming's (2014) findings approved that, there is a significant positive relationship between teachers' personal mastery indicators (personal vision, creative tension, commitment, trust, consciousness, etc.) and teachers' competence indicators (pedagogical, professional, personality, social, etc. skills). Therefore, it is effective for school principals to collect information about teachers to reveal their mastery.

Altunay and Başak's (2022) study revealed that teachers experienced a lack of support in educational processes and environments. Teachers' lack of support also negatively affects their views on the functionality of the profession. In this sense, teachers' experiences regarding school principals' efforts to evaluate teachers' personal mastery are reflected in their perspectives. Again, Altunay and Gedikli's (2022) study determined that school administration has important responsibilities in developing cooperation among school staff. In this context, the use of personal mastery and good practices by school principals encourages teachers to eliminate their lack of trust, personal connection, motivation, and feelings of loneliness. Thus, knowledge sharing is ensured by encouraging each other, and cooperation among school members should be increased to realize team learning. Social exchange theory argues that organizational members enter and maintain social relationships with the expectation of being rewarded with respect, honour, friendship, consideration, etc. Therefore, school principals who can recognize teachers' personal mastery, enable them to put it into practice and want innovations to spread in the school make teachers feel valued and motivated to use innovations for the purpose of the school. In this regard, suggestions related to the results of the study are as follows:

Since the theme of "*interviewing*" was emphasized the most in school principals' evaluation of teachers' personal mastery, school principals can set certain times with teachers and organize one-on-one interviews with teachers or organize activities inside or outside the school. All kinds of work teachers do to improve their personal mastery can be recorded in the information management system as a portfolio file.

The prominence of the "shared vision" theme in line with the advantages of personal mastery suggests that the Ministry of National Education needs some additional arrangements. School principals can take personal mastery as an agenda item in the teachers' council meetings in September when the academic year starts. Based on the teaching profession law, personal mastery studies can be introduced as a condition for expert teaching and head teaching.

"*Managerial problems*" was the most emphasized theme in teachers' opinions, and "*professional knowledge building problems*" was the most emphasized theme in teachers' memories. Therefore, in order to minimize administrative problems, school principals can be trained in human resources management and the concept of personal mastery before they are appointed or begin their administrative duties. Again, school administrations can be separated from the educational administrator and the staff that will deal with other school affairs by cooperating with staff such as specialized teachers, head teachers, or a second principal who can be assigned to the school, and staff that can devote

more time to educational affairs can be created. The Ministry of Education can develop scientific scales to determine teachers' personal mastery.

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CHAPTER III

OPINIONS OF THE TEACHERS FOR THE DEAF ABOUT CORONAVIRUS DISEASE (COVID-19) PANDEMIC PROCESS EXPERIENCES AND BACK TO SCHOOL PROCESS

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1. Introduction

While the hearing loss rate in European Union (EU) countries except Eastern Europe countries is maximum 0,13% (Kennedy, 2000; van Kerschaver et.al., 2013), rate of hearing loss in Turkey is 0.2% according to the results of the newborn hearing screening program (Bolat and Genc, 2012). In Turkey, where congenital hearing loss is seen more often compared to EU countries, approximately 2500 babies born with hearing loss every year (Sahli and Belgin, 2011). One of the most significant roles of the parents of children with congenital hearing loss is to help them learn a language that they can use in communication starting from the babyhood period. As 92% of the inborn deaf babies have parents with normal hearing, the number of deaf

people who learn sign language as a native language is notably low. In this regard, a great majority of the deaf individuals learn sign language when they start the schools for the deaf or actively take part in the associations belonging to the disabled/deaf; a small group of 8% learns sign language from deaf parents (Dikyuva, Makaroglu and Arik, 2015). The rate of the deaf individuals whose native language is TSL is 5% in Turkey, and it draws attention that this rate is pretty low (Dikyuva, Makaroglu and Arik, 2015). Blackburn (1998) emphasized the importance of teaching sign language at early ages similar to normal language education. In a study examining the effect of sign language use in intra-family interaction and language development of deaf individuals, it has been stated that families interact with deaf children less than hearing children, show less verbal behaviors and there is scarcely any parent interaction. This situation shows that the academic skills such as communication, language and speech skills, reading and mathematical reasoning skills of the deaf children are affected negatively when they cannot receive enough language input in intra-family interaction (Pistav Akmese, Sezgin and Ogut, 2019; Pistav Akmese et al. 2020). Besides, it has been stated that the primary school education of the deaf children is not enough for the literacy skills, even a high school graduate individual can read like a 4th-grade student, this reading skill is not enough to read a newspaper (Traxler, 2000). Marbeyy, del Giudice, and Lieberman (2011), stating that the deaf individual shows low reading level when the language input is insufficient, emphasized that there are difficulties in literacy skills as a result of the deficiency in language.

1.1. Education of the Deaf Children

The number of deaf children who continue inclusive education with their peers with typical development has been increasing in accordance with early diagnosis, hearing aid fitting, and early auditory-verbal education. However, the children who are early diagnosed and have no speech development generally continue education in the schools for the deaf (Ilkbasaran, 2016; Kemaloglu, 2016; Ministry of National Education-MEB, 2010). Turkish sign language (TSL) has been given as well as auditory-verbal education in the special education schools for the deaf and special education preschool courses affiliated with the Ministry of National Education since 2016 (Pistav Akmese, 2018, 2019a, 2020). These schools had provided only auditory-verbal education to the children who did not show speech development until the primary school age until 2016 (Kemaloglu, 2016; Pistav Akmese, 2019a). Before 2016, nearly all students who started schools for the deaf had not known sign language

and had used some intra-family signals they developed in their families (Goldin-Meadow et al. 2015; Kubus, Ilkbasaran and Gilchrist, 2016). The deaf students learned some signs from their peers or upper graders, similarly, the teachers learned some signs from students when the deaf students started the schools for the deaf (Dikyuva, Makaroglu and Arik, 2015). As a result of giving education with Turkish, official and dominant language, and using only auditory-verbal method especially until 2016, the children who learned sign language only for communication at schools had serious difficulties in academic learning (Ilkbasaran, 2016; Dikyuva, Makaroglu and Arik, 2015; Pistav Akmese, 2018).

Celik (2019) emphasized that the deaf individuals can communicate visually, nearly 80% of them have difficulty in reading and writing the language of their countries and they trust only sign language to communicate and reach information. However, language and speech or sign language education, which is necessary for communication cannot be taught in a definite time of the week only at schools. Native language education and communication can be planned and learned in the process, in real-life situations. Thus, the children need to use sign language in their natural environment, home, in daily life experiences and it is significant that the media and television include sign language adaptations in the informative and entertaining programs about written and visual news, education, and health. Because the ones who will achieve changes are the teachers and peers at school, parents at home, and all individuals in society. Thus, the parents and the primary caregivers who take care of the children all day have a major role. The parents, the primary caregivers who take care of the children all day, siblings and close relatives who will determine the right time to teach language skills (auditory-verbal or sign language) must provide the language input opportunities in the most suitable ways. The studies show that sign language use accompanied by telling the words contribute to utterance or development of the speech (Barbera and Rasmussen, 2007; Pistav Akmese and Kayhan, 2018; Pistav Akmese, 2019a,b).

Deaf children who cannot benefit from early intervention and auditory-verbal education opportunities and are educated in the schools for the deaf use sign language in nearly 100% of their communication (Gurboga and Kargin, 2003; Parlak, 2011). The language centers of the children born with bilateral severe and profound hearing loss change for a language based on visual-spatial perception rather than hearing (Kemaloglu, 2015, 2016). In this sense, the special education programs which will be applied to the deaf

children must consist of sign language in particular. Because the sign language is the native language of the children born with severe and profound hearing loss (Kemaloglu, 2015, 2016; Kubus, Ilkbasaran and Gilchrist, 2016; Pistav Akmese, 2019a). In this sense, the teachers who work in the schools for the deaf should provide sign language support while explaining the social and health subjects in daily life to the deaf children to make them understand these subjects. Only explanation and talking about the subject would not be enough while explaining the unexpected situations such as the epidemics, earthquake, fire, and abstract conceptions like death and loss of close relatives or friends. It is necessary to enable them to interpret in their minds with transferring information, visuals, and schemes, sign language during the process and to make them stay in communication without leaving the process. Thus, sign language is not only a communication method used for providing academic knowledge and skills of deaf children but also their native language which helps them interpret the world and events. Sign language, in a sense, is the experience diversity based on internalizing the events at the end of the process and learning the events with schemes and meanings like an individual provided with language input.

1.2. Deaf Children in Coronavirus (COVID-19) Pandemic Process

It can be said that the regulations about the health, education, and other fields of life of the children with special needs have similar and different aspects in the coronavirus disease (COVID-19) pandemic process, which has been affecting the whole world and is a viral pandemic. According to the data of the World Health Organization (March-2020), 466 million deaf individuals live in the world, and 34 million of them are children (WHO, 2020). Hearing loss, which limits the participation in the society in which they live in especially in terms of social and emotional effects, can lead to difficulties in understanding abstract concepts, communication, and interaction (WHO, 2020; Pistav Akmese, 2020; Kayhan, 2020; Ozsoy, 2018). In this sense, it is necessary to plan the practices based on rights and nondiscrimination in the social events resulted from epidemics, earthquakes, wars, or different reasons. World Federation of the Deaf (2020), in this sense, suggested that all accessible platforms of the countries should make informative and supportive programs about health, education and social life, should create material content for the deaf students not to fall behind in the education including higher education starting from early childhood. In this regard, Education of the students with special education has continued through distance education system using Education Information Network (EBA), live

broadcasts on TV, digital contents, and mobile applications in Turkey since March 16, 2020 (Ministry of National Education, 2020). The programs prepared certainly have a previous period and assessment process about applicability and efficiency. In this regard, the biggest responsibility belonged to the parents and the teachers in terms of preparation for the process, information, and implementation of the homeschooling process of the deaf students. Being based on the experiences of the teachers of deaf students has been thought of as an important feature due to the abstract concepts and differences in communication preferences. Because it has been thought necessary to internalize the concepts such as disease, epidemic, contagious factors, treatment, social distancing by deaf children; and to investigate the preparation, practices, and returning to normal in education during Covid-19 according to accessibility levels. This study aims to investigate the opinions of the teachers who work in the schools for the deaf about the Coronavirus (Covid-19) pandemic process experiences and back to school process.

2. Materials and Methods

This study, based on the opinions of the teachers who work in the schools for the deaf, was designed with a holistic approach. The interviews with the teachers were organized in accordance with their natural environments, volunteering, and sensitivity to the opinions of the participants. Analysis with an inductive perception was prioritized (Creswell, 2005). The study has been done by following the ethical principles of Helsinki Declaration.

2.1. Definition of School

In the preparation stage of this study conducted at a school which is stated in the Aegean Region and gives education to the deaf children, school administration and the teachers were informed. 35 students stay in the hostel and receive boarding education in the school that has 126 students in total at primary and secondary school grades. A great majority of the students encounter with Turkish Sign Language (TSL) for the first time when they come to the school. Kindergarten, primary school, and secondary school students receive education in the same building.

There are two kindergarten classrooms at the preschool level. Reverse inclusive education is applied in kindergarten classrooms. The number of students in two kindergarten classrooms in the 2019-2020 academic year is 13+10, 23 students in total, 3 of these students are deaf and 20 students are normally hearing.

The school administration consists of 1 school principal, 1 head vice-principal, 2 vice principals; 2 preschool teachers and 1 teacher of the deaf work in the kindergarten, 5 teachers of the deaf teach in primary school. There is 1 classroom for each of the 1st, 2nd, and 3rd-grade levels in the primary school and two classrooms at the 4th-grade level. The number of students in primary school classrooms varies between 6-8. There are 2 classrooms for each of the 5th, 6th, 7th grades, and 3 classrooms for 8th grade at the secondary school level. 5-7 students receive education in each classroom. 18 teachers in total serve for 63 students in the secondary school level, two school counselors also work in the school.

26 male, 9 female, 35 students in total stay in the hostel and continue education in the daytime. Few students use a hearing aid or cochlear implant, most of the students receive an education without aids in the school. 126 students in total receive education in the school; 23 students in kindergarten (3 deaf, 20 with normal hearing), 40 students in primary school, and 63 students in secondary school. Out of these 126 students, 106 students are deaf and 20 students are normally hearing.

2.2. Participants

This study required some prerequisites which are working in a school for the deaf at least for two years, giving TSL education at least for a year, accepting volunteer participation, and giving distance education during Coronavirus Disease (COVID-19) pandemic process. Thus, the teachers in the study were determined in accordance with the purposive sampling method, criterion sampling. The demographic information of 13 teachers who participated in the study was shown in Table 1.

The ages of 13 teachers who participated in the study vary between 35-49, and 7 of them are male. Their professional seniority varies from 10 to 27 years (Table 1).

Table 1: Demographic Information of the Teachers who Work in the Schools for Deaf (N:13)

	Age	Gender	Field/Branch	Professional Experience	Experience in the Schools for Deaf	Sign Language Teaching Duration
P1	38	Male	Turkish Teacher	13	9	9
P2	46	Male	Teacher of the Deaf	24	24	24
P3	44	Male	Teacher of the Deaf	21	14	14
P4	45	Female	Teacher of the Deaf	24	24	24
P5	37	Female	Teacher of the Deaf	15	4	3
P6	43	Male	Basic Education Classroom Teacher	22	3	3
P7	40	Male	Teacher of the Deaf	14	12	12
P8	49	Female	Teacher of the Deaf	27	25	25
P9	42	Female	School Counselor	21	4	4
P10	47	Female	Teacher of the Deaf	24	22	22
P11	38	Male	Science Teacher	10	2	1.5
P12	35	Male	Computer and Instructional Technologies Teacher	12	5	5
P13	47	Female	Teacher of the Deaf	23	23	23

2.3. Data Collection

The data of the study which was conducted in the descriptive design were obtained with the semi-structured interview technique. The interviews were conducted on the phone or online, recording the voice/video due to the current Coronavirus Disease (COVID-19) pandemic. The following steps were followed in this process. The first author who is a field expert on audiology and speech disorders, evaluation, rehabilitation and education of the deaf, has a doctoral degree in special education and the second author who has a doctoral degree in special education and is an expert on teacher training, educational regulations in special education and development of instructional plans prepared the literature-based interview form. Third author who has a doctoral degree in audiology and is an expert on audiological evaluation of children with hearing loss. First and second authors give sign language courses in the universities they work in. The first author is the writer of Turkish Sign Language in Education (Eğitimde Türk İşaret Dili) book, which is the first and unique in our country. There are national, international articles, papers, and book chapters belonging to the first, second

and third authors; all authors are experienced in research methods, designing and conducting studies in the qualitative research method. The interview form was sent to three experts, one teacher who works with deaf children, one audiology specialist who is a doctoral student and academic member, and one special education teacher who has a doctoral degree. Clarity, language and expression, and purpose-based arrangements were done in accordance with suitable, not suitable, needs revision suggestions. The interview form consisted of 15 questions in total: 7 demographic information and 8 interview questions.

2.4. Data Analysis

The opinions of the teachers who teach in the schools for the deaf about distance education during the Coronavirus Disease (COVID-19) pandemic process, information about the virus, mobile and digital applications in education, and returning to school were investigated based on the personal viewpoints and experiences of the teachers. Voice/video record approval and written record approval of the teachers were received to obtain teachers' opinions. The participants were telephoned on the individual and determined days, their answers to the questions were both recorded with voice/video record, and notes were taken by the interviewer (the first author).

The descriptive analysis of the record documents obtained from 13 teachers was done and 45 pages, 1476 lines were obtained. Descriptive analysis was conducted to examine the data in a more detailed and holistic way. While using the descriptive analysis method, similarities and differences between the answers of all participants were determined (Bogdan and Biklen, 2007). Deductive and inductive methods were used together in the analysis of the data; preparation and reporting the data by organizing stages were followed, analyses were done at the end. The themes were turned into findings as a result of content analysis. The personal information of the participants was reflected with codes in accordance with privacy and ethical concerns. For this reason, P1, P2, P3 (Participant Number) were used for teachers. While transferring the data obtained from the interview records to the detailed interview form, the teachers were coded like "P1" with letter code and number. The detailed interview form consisted of the index, descriptive data, interviewer comment, and page comment parts. Lastly, the written data analyzed descriptively were coded, the pattern between the grouping process and explanations were determined. While coding the data, 18 different codes were used (such as early education, sign language teaching, language development, digital materials, preparation to coronavirus disease (COVID-19) pandemic process, returning to back to school process, etc.).

By simplifying, combining and dividing the patterns into categories, the coding process representing each category was made separately. Both two authors conducted coding separately, the codes constituted the themes and the sub-themes. The reliability of the study and inter-coders reliability calculations were enabled with repeatability. The agreement percentage of both authors (coders) were evaluated according to the total of agreement and disagreement. $\text{Reliability} = [\text{Agreement} / (\text{Agreement} + \text{Disagreement})] \times 100$ (Miles and Huberman, 1994). Accordingly, the percentage of reliability was calculated as 92%.

3. Results

This chapter includes the themes and sub-themes obtained from the study, each finding was stated with the direct citations from the opinions of the teachers (Table 2).

Table 2: Themes Obtained from the Analysis

1-Preparation for Coronavirus disease (COVID-19) pandemic period

- 1.1. Information and transparency
- 1.2. Interinstitutional shares
- 1.3. Effect of media and other components

2-Coronavirus disease (COVID-19) pandemic process

- 2.1. Family-school society effect
- 2.2. Accessibility and precautions
- 2.3. Characteristics of deaf children

3- Effective application impressions

- 3.1. Power of visual-written media.
- 3.2. Effect of the Sign Language
- 3.3. Features of the school (hostel-interaction-teacher-peer communication opportunity)

4- Negative experiences

- 4.1. Family's not knowing sign language
- 4.2. Experiential differences of the students
- 4.3. Technologic opportunities

5- Suggestions regarding the normalization process

- 5.1. Hygiene- social distance rules precautions
 - 5.2. Digital material pool
-

According to Table 2, the opinions of the teachers consist of 5 main themes and 14 sub-themes. The findings under each main theme title are as follows:

In the preparation for Coronavirus Disease (COVID-19) pandemic process theme, the teachers emphasized the components such as information, transparency principle in these shares, interinstitutional shares, media, and written media and social awareness. The teachers expressed that they needed more visual and written materials and stated that they prioritize explaining hygiene, cleaning, pandemic, how to protect from pandemic to the students. For example, P1 stated: *We first showed the importance of hygiene and cleaning, personal cleaning applied at school. We used posters. Television was highly effective, we benefited from the infographics of the Ministry of Health and the Ministry of National Education.* P4 stated: *The first interaction with Covid-19 was very significant. We show ultimate attention to explain in the best way as the sign language is used actively at school. Besides, we have a counseling service and I think it is highly effective. Our priority was explaining hygiene. We made applications with visuals and sign language presentations, the mask use was disadvantageous but we drew attention to the sign language use in the feedbacks.* While the teachers drew attention that the fast closure of the schools with the Coronavirus (COVID-19) pandemic was a disadvantage for them and their students, P2: *I found fast closure of the schools disadvantageous for the deaf students (Because most of the parents of the deaf children do not know sign language, the deaf children cannot receive a supportive language input as in the school. Although it was advantageous for health, it was disadvantageous in terms of education).* P1, P2, P4, P5, P6, P7, P11 stated that it is highly difficult to teach abstract concepts to the deaf children; examples from life and descriptive presentations (film- video with subtitles- being a model) are needed for this. For example, P4: *Material richness and sign language are important for teaching abstract concepts to our students in the education of deaf students.* P5: *Pandemic was an unexpected situation and I can say the importance of teamwork. For example, public service announcements and social media are pretty effective. We saw the importance of all experts' knowing sign language and competency,* and emphasized the rich material pool and presentations including sign language which can be used in teaching natural disasters and abstract concepts.

Regarding the Coronavirus Disease (COVID-19) pandemic process theme, they mentioned sign language awareness in the family-school-society, time which will be spent at home about the accessibility. They suggested that each deaf student should be taken into account during the digital regulations and materials regarding the course and planning and application of the

precautions. Teachers, emphasizing the importance of boarding part of the schools for the deaf, stated that this provides an advantage in the academic and social participation of the students who have parents who do not know sign language (P1, P2, P3, P8). Television broadcast through Education Information Network (EBA) formed by the Ministry of National Education is found to be more accessible by the teachers. They stated that Turkey managed an effective process both in the precautions regarding health and in creating and digitally presenting contents to the students from preschool to higher education in the academic process. P9 stated that they explained *novel coronavirus (COVID-19) with concretization and games*; P1, P2, P3, P5, P7, P12, P13 stated that they think constant information on the national media by the institutions, shooting videos with sign language appropriate for all ages, providing rich written and visual materials are effective.

Teachers, giving Education Information Network (EBA) and I am Special I am in Education *as the examples of* the third theme Effective application, mentioned that the people who work in all public institutions should know and use sign language (All teachers). A great majority of the teachers (P2, P4, P5, P7, P8, P9, P11) stated that the hostel in the school and an effective sign language teaching process are advantageous, however, the children are deprived of the interaction opportunity with their teachers and peers at school because the families do not know sign language and do not use it in active communication.

The teachers, emphasizing experiential differences in the language and speech inputs according to the hearing impairment of the students in the fourth theme (P3, P6, P9, P10, P11, P12, P13), stated that especially the students who were not exposed to sign language in the early period may have difficulty in understanding the lectures in the pandemic process. For example, P9 said: *Social distance and isolation are important regarding the pandemic. The rules were emphasized also in this situation, I mean, there are microbes in the environment, if I get close to my friend and s/he is infected, I get infected, too. My students know that, the school nurse gave health and hygiene education in the school in the previous lectures. The children already know what a virus or a microbe is and how to be protected from them.*

Another important emphasis of the teachers regards the communication experiences of deaf children with their teachers (P2, P3, P4, P9, P12, P13). For example, P13 said: *I make video calls with my students. I can also communicate with their families more effectively. I share visual and written materials with deaf parents* and mentioned the importance of including the parents in the process.

The teachers also drew attention that the families show differences in terms of accessibility and technological opportunities (P1, P3, P5, P9, P12). P10: *The students understood the situation in a short time as they followed the situation from the television and families talked about it at home. They especially learned what to do while sneezing and coughing in the classroom and school and that they need to pay attention to hand cleaning. They couldn't show the necessary sensitivity only for distancing.* P12: *... the students used digital environments such as social media, EBA (Education Information Network), video call as the only communication tool in the pandemic process as they stay at home. TV and mobile applications were highly effective for the ones who had no or limited technological opportunities.* Regarding the suggestions for returning to back to school process, the teachers stated that there should be precautions in the classrooms and hostel regarding the hygiene-social distance rules and digital material pool to support deaf students (All teachers).

4. Conclusion

It has been concluded that the teachers emphasized the importance of sign language use for information, and its effect on digital accessibility, television, and media in communication during the coronavirus disease COVID-19) pandemic process. The teachers stated that deaf students have difficulty in correlating to the abstract concepts such as health, hygiene, isolation, disease, virus due to the difficulties in language skills. They emphasized that the sign language should be used actively in this sense. A great majority of the deaf individuals who use sign language learn sign language at the school-age in Turkey (except for the ones who have deaf parents). This period is a very late period for native language acquisition. So, deaf children have serious difficulties regarding language. TSL is used in education in addition to the auditory-verbal method in the schools for the deaf in Turkey as of 2016. The deaf children could learn TSL from their peers in the extracurricular period before. Besides, approximately 70-80% of the students in the schools for the deaf do not use a hearing aid or cochlear implant regularly. The literacy level of this children is pretty low as a result of encountering their native language, sign language in the school period (ones who have hearing parents) and starting TSL acquaintance process late (Dikyuva, Makaroglu and Arik, 2015; Ilkbasaran, 2016; Pistav Akmese, 2019). Thus, it is necessary to include sign language as a communication preference in the family and society as well as using sign language at schools (Dikyuva, Makaroglu, and Arik, 2015; Ilkbasaran, 2016; Pistav Akmese, 2018, 2019a,b; Pistav Akmese and Kayhan, 2016, 2018).

It is important to provide sharings on social media and television with sign language in the schools or family to support social participation during coronavirus disease (COVID-19) pandemic process. In a study conducted with 24 hearing and 24 deaf children, 48 children in total, Courtin (1997) studied the words such as the food, animals, and vehicles and stated that the deaf children prefer schematic choices more than categorical choices, thus, their language development should be supported with sign language and visuals. In another study, Gurboga and Kargin (2003) stated that 70-75% of deaf individuals preferred sign language in daily life communication in the schools for the deaf even in the period in which TSL education was not given in the schools. This situation shows that the use of sign language by the deaf individual is highly significant for the active participation in social life and quality of life (Pribanic, 2006; Pistav Akmese, 2016, 2019a).

World Health Organization (WHO, 2020) and World Federation of the Deaf (2020) emphasized that it is necessary to fight with all kinds of discrimination not to miss information during Coronavirus Disease (COVID-19) pandemic process in accordance with the 7th article of United Nations Universal Declaration of Human Rights, 5th article of Convention on the Rights of Disabled People. Accordingly, the legal regulations regarding the right for benefiting from information, education, health, and other services of deaf students draw attention in our country. The base of the legal regulations is Law on Disabled People and on Making Amendments in Some Laws and Decree-Laws numbered 5378 dated 1 July 2005, which has an important role for TSL in Turkey. The Article in which the “Turkish Sign Language” phrase is stated for the first time is “Article 15: ...Turkish Sign Language is created by Turkish Language Institution (TDK) to provide the education and communication of the deaf people.” After this law, “Regulation on Determining the Rules and Procedures Regarding the Formation and Application of Turkish Sign Language System” was published on April 14, 2006, and adopted (Akalin, 2014; Arik, 2016; Dikyuva, Makaroglu and Arik, 2015; Kemaloglu, 2016; Kubus, Ilkbasaran and Gilchrist, 2016; Pistav Akmese, 2019a).

Another important factor in sign language use in Turkey and the development of TSL is the United Nations Convention on Human Rights of Persons with Disabilities (UNCHRDP) (United Nations Convention on the Rights of Persons with Disabilities, 2006). Convention on the Rights of Persons with Disabilities was put into force on October 28, 2009. This convention has been an important step for the language rights of deaf individuals (Pistav Akmese, 2019a). It draws attention that UNCPD approaches to sign language as a native

language and handles it in terms of accessibility and visibility (Convention on the Rights of Persons with Disabilities, Council of Ministers Decision, 2009). In accordance with the latest legal regulations, teachers who work in the schools for the deaf have received TSL education since the 2015-2016 academic year. Besides, studies on the educational materials of TSL and TSL-based literacy and academic education have started. With all these legal regulations, Ministry of National Education on the educational services, Council of Higher Education in the universities started sign language practices in social media and social and public areas to support education with sign language (Pistav Akmese, 2019a). Today, sign language interpreters work within the structure of the Ministry of National Education, they provide sign language-supported services in the online environment of the counseling and information units of the Ministries (Ministry of National Education-MEB, 2020; Council of Higher Education-YOK, 2020a,b).

Including the experiences of the teachers who directly teach in the schools for the deaf using sign language and who participated in the homeschooling, the support process is significant for the services for the deaf students in the coronavirus (COVID-19) post-pandemic returning to normal process.

Another important aspect of the study is that it includes opinions about providing harmony and unity between family-school society in the coronavirus disease (COVID-19) post-pandemic process. Because the coronavirus disease (COVID-19) pandemic process led all of us to reorganize our daily life. While the students, teachers, families deal with the stress caused by the pandemic, follow hygiene rules, organize daily routines on one hand; experience uncertainty about returning to normal on the other hand. Opinions about the education of the deaf students in a school that has a hostel, setting the physical opportunities for the social distance in returning to normal, the fact that use of the masks do not let lip-reading can be counted among these opinions.

Emphasis on the quality education for everyone has made the concept of fair and rights-based education in life as well as equality of opportunities in schools even a stronger factor in the coronavirus disease (COVID-19) pandemic process. At this point, the suggestions regarding future regulations are as follows:

- Accessibility practices can be applied at home as well as at school.
- The number of interactive content in the digital environments can be increased, more people who know and use TSL (Turkish Sign Language) can be employed in state institutions and organizations.

- It can be suggested to prepare coronavirus disease (COVID-19) post-pandemic process school action plans including information, planning, and studies at school and home for the deaf students and their families.
- As the study is limited to the teachers who work only with the deaf students, the opinions of the families, and the students about returning to new normal can be investigated.
- Similar to this study which was conducted to receive detailed opinions, studies designed in qualitative and quantitative design can be planned.
- The experiences of the school administration and families, teachers about the homeschooling process can be investigated in terms of technological literacy, e-learning knowledge, and skills.

In conclusion, determining the experiences of the deaf students and teachers during the coronavirus disease (COVID-19 pandemic process will provide a vision for the regulations made in the post-pandemic period. Because as well as the great efforts made in preparation and transitions with each change, the main basis of regulations is the needs of individuals.

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CHAPTER IV

SCHOOL ADMINISTRATORS' VIEWS ON THEIR PROFESSIONAL DEVELOPMENT EXPERIENCES

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1. Introduction

The education system is a crucial component that shapes societal progress. Its effectiveness is closely linked to the quality of education provided to students and the efficient functioning of schools in terms of administration and pedagogy. School administrators play a critical role in ensuring the success and sustainability of schools. School administrators frequently encounter challenges when undertaking multifaceted tasks, such as supporting teachers, meeting student needs, communicating with parents, and managing the school. To overcome these challenges and improve education quality, administrators must be equipped and open to continuous development. In recent years, the role of school principals has become more complex due to rapid technological developments in education, changes in learning theories, and updates in educational policies. Nowadays, principals are expected to assume instructional leadership roles and take on a variety of responsibilities. In this context, school administrators must continuously develop and renew their knowledge and skills to be effective administrators in line with the requirements of the modern era. In this context, school principals must continuously develop and renew their knowledge and skills to be effective administrators in line with the requirements

of the modern era. It is crucial for individuals to constantly seek personal and professional development. Professional development is a strategy for school improvement and a policy tool based on the assumption that practitioners need to acquire new knowledge and skills (Adey, 2004; Hallinger, 2003; Spillane, Healey, & Parise, 2009). The concept of professional development includes all formal and informal learning from pre-service to retirement and throughout life (Kasar & Clark, 2000). It is the main component of school improvement and defines educational activities for educators to enhance their professional knowledge, skills, and approaches. According to Watts and Hammond (2002), professional development refers to the acquisition of knowledge and skills that are specific to a particular sector.

It creates a constant need for change and adaptation. Continuous professional development is essential for organizational employees to effectively carry out their work and improve the quality of education. Therefore, investing in their own skills should be a priority for school staff. From a school perspective, professional development refers to a range of educational processes and activities designed to enhance the professional knowledge, skills, and attitudes of all staff (Guskey, 2009; Truscott & Truscott, 2004). Professional development activities offer educators the chance to enhance their scientific, educational, and personal competencies. They also aid in the development of teaching resources and the improvement of the teaching climate (Harris, 1989). School administrators should prioritize professional development to enhance the performance of school staff, improve students' learning experiences, and contribute to the overall development of the school. Professional development enables administrators to deepen their knowledge in their respective fields, stay up to date with current developments, and align with the school's standards (Reese, 2010). In the professional development process, administrators must identify their professional development needs, provide leadership on how to manage the process, and recognize the relationship between professional development and school improvement. Knowledge is constantly renewed, and the need for knowledge in management increases.

In the continuous learning and adaptation processes of administrators, professional development is critical. The areas of development needed, how to address these needs, the importance of continuous and sustainable professional development, and how to lead are all central. However, the existing literature shows that the professional development of teachers and administrators is not sustained at the desired level (Cohen & Hill, 2000; Drage, 2010; İlğan, 2013). O'Sullivan (2010) stated that the professional development needs of educators are not adequately addressed. Identifying the professional development activities

frequently used by school administrators and understanding their experiences and perspectives is crucial to increasing the effectiveness of educational institutions. In this context, it is important to focus on the professional development activities of school administrators and their effectiveness. This is a crucial step towards improving educational practices and shaping educational policies.

This research aims to identify the areas in which school administrators require professional development, the difficulties they encounter during this process, and their evaluation of MONE's policies regarding these issues. The focus is on the experiences of school administrators related to their professional development. The research also aims to examine the alignment of these evaluations with existing literature, identify gaps, and contribute to the formulation of more effective educational policies. Understanding the professional development needs of school administrators is crucial for improving the effectiveness and sustainability of our education system. Therefore, the research seeks to fill the gap in this area and provide information that will help education managers lead more effectively.

2. Method

This study employed a phenomenological design, a qualitative research method, to obtain in-depth information about a specific situation. Qualitative research is an empirical approach that involves collecting and creating non-numerical data, such as words and images (Yıldırım & Şimşek, 2017). Phenomenological design is a research method that is suitable for obtaining detailed information from individuals who experience phenomena that occur in different ways in everyday life and therefore have different understandings and comprehensions (Christensen et al., 2014). The method is used to investigate how individuals make sense of their experiences and how they transfer these meanings to the outside world (Patton, 2015). Therefore, in phenomenological research, the focus is on the phenomenon being investigated, and the participants' perceptions and perspectives on it. This includes how they make sense of the phenomenon, their experiences of it, and how they describe those experiences. The phenomenon may be a concept, thought, or emotion (Giorgi, 1997).

2.1. Participants

This study aims to explore and understand the experiences of school administrators during the professional development process and gain insight into their thoughts on professional development through these experiences. To determine the participants, maximum diversity sampling, one of the purposeful

sampling techniques, was preferred. The objective of this technique is to create a relatively small and heterogeneous sample to identify any shared situations among individuals who may be involved in the phenomenon under investigation (Patton, 2015). The study group was formed based on two main criteria. Firstly, participants were selected from school administrators working in public primary, secondary, and high schools. This was done to convey the professional development experiences of school administrators at different levels. The second criterion required school administrators to have at least five years of administrative experience to ensure familiarity with professional development processes. The study group consisted of 42 school administrators.

2.2. Data Collection

The study collected data using a semi-structured interview form based on a literature review to outline the research problem. Participants were contacted and provided consent before scheduling face-to-face interviews with the researcher at specified appointment times. To elicit detailed responses during the conversational interviews, participants were asked the following open-ended questions supported by probing questions: 1. *“What are the essential professional characteristics of a school administrator? How do you define professional development?”* 2. *“What are the specific professional development requirements for a school administrator? Can you describe your professional development process? Why is it crucial to meet these needs? What benefits do they provide to an administrator?”* 3. *“What strategy did you use to address the professional areas you identified as needing development?”* 4. *“Do you consider the professional development needs of school administrators to be an important issue for MoNE? What practices does MoNE have in place for the professional development of school administrators, and do you believe these practices meet their needs?”* The interviews were recorded over a three-month period and lasted approximately 50-70 minutes. At the end of each interview, participants confirmed their agreement and received a copy of the recording.

2.3. Data Analysis

The analytical approach chosen for this research is phenomenological design, which allows for an in-depth examination of how individuals make sense of their life experiences (Smith & Osborn, 2003). Phenomenology does not propose a single technique for analyzing data; instead, it provides researchers with flexible processes while maintaining an analytical focus

on exploring participants' experiences. The text already meets the desired characteristics. No changes were made. In this context, the data obtained from the interviews were analysed using content analysis to address the research questions. Content analysis is a method that helps to determine the meaning of statements in the interview and classify the discourse (Paillé & Mucchielli, 2016). The process of content analysis involves grouping similar data based on specific concepts and themes, and then organizing and interpreting them in a way that is easily understandable for the reader (Yıldırım & Şimşek, 2017). The study began by transcribing audio-recorded interviews into a computerized text document. Next, the data obtained from the interviews were analyzed through open coding to identify common concepts. Then, axial (focused) coding was used to compare participant statements with the codes created. Finally, selective (conceptual) coding was performed. The codes were categorised according to the conceptual framework and themes were identified. Similar codes were then grouped together to form themes. The data were then systematically organised based on the emerging codes and themes and reported using direct quotations. As a result, twenty codes and four themes were identified regarding school administrators' perspectives on professional development experiences (figure 1).

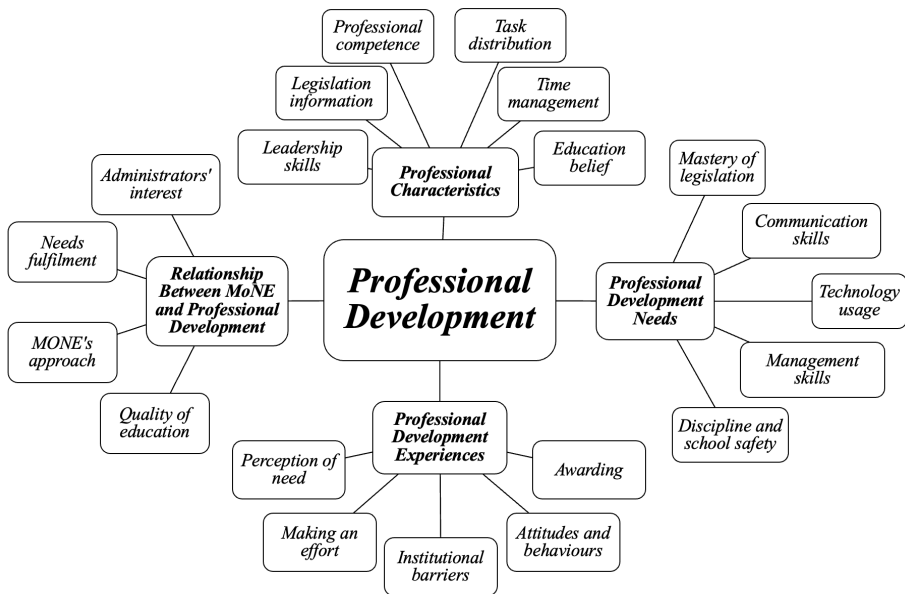


Figure 1. Themes and Codes

In phenomenological research, ensuring validity in data analysis is crucial. This is because there is a possibility of unintentional distortion or

filtering of information during analysis. To ensure internal validity, the expert review was conducted, and external validity (transferability) was ensured through a detailed explanation of the research process (Chan et al., 2013). Direct quotations were used to provide evidence for the codes and themes determined. The study selected quotations based on criteria such as intensity of disagreement, explanatory relevance to the theme, diversity, and extreme examples. Additionally, to achieve the desired outcome, it is important to use clear, objective, and value-neutral language, avoiding biased, emotional, figurative, or ornamental language. The text should be grammatically correct, and free from spelling mistakes and punctuation errors. It is also important to maintain the content of the improved text as close as possible to the source text. In this regard, the language used in the original text is already clear and value-neutral (Giorgi, 1997). The text adheres to conventional academic structure and formatting features, including consistent citation and a clear logical progression. The content has not been altered beyond improving clarity and objectivity. To ensure external reliability and verifiability, the raw data was retained for future research comparison. In summary, the study employed various strategies to mitigate validity and reliability issues.

3. Results

The sub-problem was structured as follows: “*How do school administrators define the characteristics of an ideal school administrator?*” The theme of ***professional characteristics*** emerged from this sub-problem, exploring the essential qualities and functionality that school administrators believe school administrators should possess. The codes that emerged were leadership skills, legislative knowledge, professional competence, task allocation, time management, and commitment to education. This theme aims to provide a comprehensive understanding of the fundamental qualities and functions that a school administrator should possess to effectively carry out their duties.

The *leadership skills* code highlights the importance of leadership qualities for school administrators. These qualities are essential for directing teams, providing motivation, problem-solving, and decision-making. Leadership is a fundamental requirement for school administrators as it significantly impacts the success of the school. Furthermore, a competent school administrator must possess effective communication skills. This involves establishing positive relationships with all stakeholders, actively listening, showing empathy, and fostering open communication environments. These skills have

a positive impact on the school climate, facilitating the establishment of strong relationships between all stakeholders. Two prominent participant expressions are as follows:

K26: *“The combination of leadership and communication skills enables the school administrator to lead effectively.”*

K32: *“By establishing effective communication with staff and students, leaders can demonstrate their leadership qualities and have a positive impact on the school climate.”*

The *legislation information* code assesses school administrators' understanding and application of legal regulations related to school functioning, as well as their mastery of legislation and education management. Familiarity with current legislation is crucial for administrators to ensure the smooth operation of the school and guide decision-making processes. A prominent participant expression is listed below:

K1: *“School administrators should have knowledge of the current legislation.”*

The code of *professional competence* states that a school administrator should possess not only knowledge of legislation but also professional experience and expertise. Professional qualification encompasses the knowledge, skills, and abilities required for school administrators to effectively carry out their duties. This code analyses the extent to which school administrators dominate legislation and their ability to comprehend and implement legal regulations pertaining to education management and school operations. The participants suggest that school administrators should possess teaching experience and competence to meet the pedagogical and administrative requirements of the school. A notable participant expression is as follows:

K25: *“The manager should possess educational experience and have a clear understanding of the pedagogical and administrative requirements of the school.”*

The *task distribution* code analyses the capacity of school administrators to distribute tasks equitably and balance resources. It is crucial for school administrators to share duties and responsibilities equally and fairly, as this approach strengthens relationships within the school and increases staff motivation. Fair management also fosters cooperation and has a positive impact on the school climate, facilitating the achievement of its goals. Some participants

stated their opinions about this code. A participant's prominent expression is as follows:

K10: *"The manager should maintain balanced relationships within the institution by adhering to the principles of equality and justice."*

The *time management* code assesses the effectiveness of school administrators in managing time, setting priorities, and planning. The time management skills of a school administrator are crucial because effective time use requires identifying urgent and important issues and acting accordingly. Planning, organization, and prioritization skills enable administrators to regularly direct the functioning of the school. This improves the balance between important subjects and increases school efficiency. Some participants stated their opinions about this code. A participant's prominent expression is as follows:

K25: *"To use time effectively, it is important to identify urgent and important issues and act accordingly."*

The participants in the *education belief* code emphasized the importance of education and their openness to learning. The code reflects the school administrators' capacity to constantly improve themselves and adapt to innovations. Additionally, the code highlights the importance of school administrators supporting the professional development of teachers and promoting institutional improvement and growth. This can improve the school's educational standards, support student achievement, and enhance the quality of education. Two prominent participant expressions are listed below:

K13: *"School administrators emphasize their commitment to education and institutional development while also valuing their faith."*

K19: *"The administrator should support the professional development of teachers and staff, promote continuous improvement and growth institutionally, and maintain a focus on enhancing the skills and knowledge of all employees."*

The second sub-problem of the research is *"What subjects do school administrators think they need professional development in?"* it is structured in the form of. Based on the data collected for this sub-problem, the theme of **professional development needs** has been established. This theme explores the resources that school administrators require for their professional development.

This theme covers the following codes: “*mastery of legislation*”, “*communication skills*”, “*technology usage*”, “*management skills*”, “*discipline and school safety*”. It aims to provide an understanding of the necessary skills and knowledge required by school administrators and support their development. Each code highlights a specific area of school management and suggests that proficiency in these areas can enhance the overall success of the school. School administrators who possess a strong foundation in these areas can more effectively increase the success of their schools and support the success of their students.

In the code of *mastery of legislation*, it is emphasized that school administrators should possess knowledge about current legislation and regulations. It is also important for them to continuously improve themselves in this regard. The code includes legal information required for school administrators, as well as regulations and policies covering issues such as student rights and teachers' working conditions. Given the frequent changes in rules and regulations within the Turkish education system, it is crucial for school administrators to remain up-to-date and effectively apply this information. The participants included in this code, along with two prominent participant expressions:

K35: “*Managers can fulfill their responsibilities more effectively by keeping up to date with legislation and regulations.*”

K40: “*It is important for administrators to have a good understanding of the legislation in order to maintain order in the school and effectively solve problems.*”

The *communication skills* code covers a range of skills, including accurate and understandable communication, empathy, listening skills, effective meeting management, and conflict resolution. The participants in this code focused on empathy, understanding, and open communication skills. Good communication enables the building of healthy relationships with teachers, students, parents, and other stakeholders, as well as effective problem-solving and decision-making. However, it is important to note that empathy, understanding, and open communication skills can assist school leaders in building reliable and collaborative relationships with their communities. Two prominent participant expressions are listed below:

K32: “*I don't have many issues with establishing intimacy, but I would like to communicate more effectively..*”

K33: “*Communication skills allow school administrators to effectively collaborate with different stakeholders and solve problems.*”

The *technology usage* code covers basic computer skills, the use of digital tools, instructional technologies, and data analysis. In today's rapidly advancing technological landscape, school administrators must adapt and continually update their skills. Proficiency in computer usage, data analysis, digital communication tools, and other technological skills can enhance administrators' efficiency and better support students' education. The code includes their three prominent expressions:

K5: *"I may experience difficulty when using a computer."*

K16: *"By utilizing technology, school administrators can efficiently manage information and communicate with stakeholders."*

K35: *"We are currently in the technology era, which is advancing rapidly. There is no time to waste."*

Under the *management skills* code, management principles, leadership theories and practice that will help school administrators develop an effective leadership style are discussed. The participants stressed the importance of developing effective leadership, problem-solving abilities, and organizational management skills. They stated that management skills are the most critical factor affecting the success of the school. Among the management skills required for school administrators, competencies such as vision creation, strategic planning, team management, and decision-making stand out. It is important for school administrators to possess leadership and management skills as they determine the school's vision, manage staff, allocate resources, and implement decisions. Effective school leadership involves creating a motivating environment, encouraging teamwork, and increasing students' academic achievement. Problem-solving abilities also encompass effective crisis management. Two prominent participant expressions are as follows:

K12: *"Effective leadership enables us to establish the school's vision and inspire the staff."*

K16: *"My leadership trait could have been stronger."*

The *discipline and school safety* code provides school administrators with information on school safety policies, disciplinary procedures, crisis management, and understanding student behaviour. It is important to note that a secure and peaceful school environment has a positive impact on student achievement, and administrators should take an active role in maintaining it. Furthermore, it has been suggested that the implementation of effective disciplinary policies and

ensuring school safety are the most crucial environmental factors that enable students to succeed. Therefore, it is imperative that school administrators take the lead in ensuring student discipline and protecting school safety. A safe learning environment not only enhances academic achievement but also promotes general well-being in the community. The implementation of disciplinary policies is crucial in regulating student behaviour and providing a positive learning environment. Two prominent participant expressions are as follows:

K21: *“I believe that ensuring school safety is crucial for students to feel secure and for creating an optimal learning environment.”*

K36: *“I think that school administrators must ensure school safety by developing effective disciplinary solutions.”*

The third sub-problem of the research is: *“How do school administrators experience the professional development process?”* This sub-problem focuses on the theme of **professional development experiences**, examining the past experiences of school administrators and their effects. This theme can help school administrators understand their professional development needs, the making an effort they exhibit, the barriers they face in this process, their attitudes towards professional development, and their perceptions of reward systems. This information can guide school administrators in supporting their professional development and making improvements in this area.

In the *perception of need* code, the situations of school administrators seeing or not seeing professional development as a need were examined. Many of the participants stated that school administrators perceive their own professional development needs and make efforts in this direction. However, some feel that this effort is insufficient or not at all. The perception of the need for professional development varies mostly depending on age, experience, motivation, and institutional factors. It is observed that young managers tend to be more open and innovative. These needs may be caused by various factors, such as specific skill shortages, new trends and technologies, changing legislation or corporate goals. Two prominent participant expressions are as follows:

K17: *“Schools with proactive administrators typically experience minimal issues.”*

K25: *“My colleagues who are in their first years of management are more aware of their shortcomings.”*

The *making an effort* code examines the differences between school administrators who make an effort towards professional development and

those who do not. It investigates the types of efforts made by administrators who are committed to professional development, as well as the motivational factors behind their efforts. Individuals who aim to enhance their professional development often seek to improve themselves through various means, such as attending in-service training, conducting academic research, and consulting with colleagues. This reflects a commitment to effort, continuous learning, and development, and greatly affects a person's professional success. Factors such as workload, lack of motivation, tendency to maintain the existing order, lack of supervision, and low career expectations can hinder the professional development of managers who do not make an effort. This situation demonstrates that managers can be influenced by personal and workplace factors. Two prominent participant expressions are listed below:

K18: *“Those who make a genuine effort will experience positive development.”*

K23: *“They do not show it because they do not realize what they have to do.”*

The code on *institutional barriers* examines bureaucratic difficulties that hinder the professional development efforts of school administrators. These obstacles include limited resources, time pressure, complex policies and legislation, weighty bureaucratic procedures, and institutional resistance. Such factors negatively affect the efforts of managers. This situation highlights the need for systemic changes to achieve more effective professional development. Two prominent participant expressions are as follows:

K39: *“They wants us to attend both in-service seminars and not leave school, now how can I do these two at the same time?”*

K40: *“When suggesting organizing a seminar in our school and inviting experts, there is often a lack of attendance. Some teachers even argue that such training is unnecessary.”*

The code of *attitudes and behaviours* examines school administrators' attitudes towards professional development and how these attitudes manifest in their behaviour. Some participants have a positive attitude towards professional development efforts. This positive attitude includes being open to continuous learning and development and reflecting these values to their team. However, many participants reported that other school administrators were hesitant or apathetic towards professional development, choosing to remain uninvolved. Specifically, it was noted that managers who adopt an authoritarian or status quo

approach may be resistant to innovation and change. This can hinder corporate development and negatively impact employee motivation. This situation often arises when school administrators are nearing the end of their careers or feel secure. Personal attitudes and management understandings of managers directly affect the importance they attach to professional development. Two prominent participant expressions are below:

K6: *“Why would they show it? Will they learn anything new and receive additional workloads or problems?”*

K33: *“Many experienced school administrators, particularly principals, are familiar with the phrase ‘that’s it from me’.”*

Many participants in the *awarding* code expressed that managers who demonstrated professional development were not sufficiently appreciated. This situation can diminish managers’ motivation and hinder the creation of a supportive environment for professional growth. On the other hand, by effectively operating the reward mechanisms, school administrators’ efforts and achievements can be better defined and rewarded, creating a more encouraging atmosphere for professional development. This can lead to an improvement in the overall performance of schools. A prominent participant expression is listed below:

K18: *“Although you meet all the criteria for an award, not being on that list may suggest that you should focus on your work and writing articles without getting involved in other activities.”*

The fourth sub-problem of the research is “How do school administrators evaluate the policies of the Ministry of National Education (MoNE) for their own professional development?” it is structured in the form of. Based on the answers given by the participants to this question, the theme of the ***relationship between MoNE and professional development*** has been established. This theme examines the professional development opportunities offered by the Ministry of Education and their impact on school administrators. Within this theme, the codes *“the quality of education”*, *“the MoNE’s approach”*, *“the needs fulfilment”* and *“the administrators’ interest”* have been created. This theme can aid in comprehending the efforts of the MoNE to support the professional development of school administrators and the effects of these efforts. This theme can aid in comprehending MoNE’s endeavors to support the professional growth of school administrators and their impact. It highlights the need for MoNE to prioritise the professional development of school administrators, focus on practical

knowledge and skills in training content, and revise the administrator training processes. Furthermore, it was emphasised that developing new strategies to enhance the training process is crucial to improve participant satisfaction and the quality of in-service training.

The quality of education code is linked to the content of in-service training. Participants often find the training inadequate. The trainings mainly consist of presentations that convey only theoretical information, lacking practical application or case studies. This lack of practical experience makes it difficult for administrators to handle real-world problems. School administrators consider the trainings ineffective and unsuitable for their actual needs. While training sessions typically concentrate on information transfer, it is recommended that interactive and participant-oriented methods are employed for effective learning. For instance, training sessions should be supplemented not only by seminars or presentations but also by interactive activities such as workshops, group discussions, and role-playing. Training programmes should incorporate practical skills to assist participants in dealing with the challenges they encounter in their daily work. In addition, it is recommended that school administrators implement what they have learned through post-training support and mentoring. This will allow for a deeper learning experience. Three prominent participant statements are listed below:

K1: *“I believe that the training sessions are designed solely based on the presentation format.”*

K5: *“I wish all in-service training was a cure-all. However, it was not.”*

K17: *“I had hoped for a more productive training session. As with any in-service training, the conclusion was disappointing.”*

The code of the *MoNE's approach*, relates to the importance that the Ministry of National Education places on the professional development of school administrators. MoNE's policies, resources, and support mechanisms for professional development were evaluated using this code. Participants believe that MoNE does not allocate sufficient resources to this area and does not develop effective policies. It is believed that this situation leads to insufficient professional development for school administrators, resulting in a decrease in the quality of education. However, the success of educational institutions depends significantly on the leadership and management skills of administrators. Therefore, it is expected that the Ministry of National Education will allocate

more resources to the professional development of school administrators and give greater importance to this issue. Three prominent participant statements are as follows:

K2: *“I think that the Ministry of National Education does not consider our professional development to be a priority.”*

K6: *“If things are happening, it can be said that MoNE is not very interested in professional development.”*

K13: *“I believe this issue is not very important for MoNE.”*

The *needs fulfilment* code relates to the extent to which in-service training is suitable for the individual needs and expectations of school administrators. Participants generally feel that the training is standardized and not personalized. Specifically, they emphasize the lack of practical training that aligns with their needs. The unsuitability of the training content for the daily needs of school administrators reinforces the perception of the ineffectiveness of the training. However, by focusing the training content on the real needs and current problems of school administrators, participant satisfaction and effectiveness can be increased. Therefore, needs analyses should be conducted before the training, and the training content should be determined accordingly. Furthermore, receiving regular feedback from school administrators is crucial for the ongoing enhancement of educational programmes. One of participants has a notable statement from one of the participants:

K4: *“The course did not meet my expectations as it failed to cover the necessary material.”*

The code of *administrators' interest* is examining the extent to which school administrators are motivated in trainings and identifies positive and negative factors affecting their participation in professional development programmes provided by MoNE. Participants believe that low-quality training leads to a lack of motivation and apathy, which can reduce the effectiveness of the training and hinder the professional development of school administrators. Some participants willingly participated in the training and attached importance to their personal development. However, it was noted that when the trainings are not mandatory, participation tends to be low, which can reduce their effectiveness. Conversely, when participation in trainings is compulsory, school administrators may struggle to allocate time for them in their busy schedules, leading some participants to approach the trainings with reluctance. Therefore,

offering flexible training programmes and online options, as well as allowing participants to determine their own training hours, can make in-service training more accessible for school administrators. Two prominent participant statements are listed below:

K1: *“I believe it is unpleasant to have a professional development obligation.”*

K23: *“Due to my workload, I am unable to attend mandatory training sessions.”*

4. Conclusion

In the study, as a result of grouping the codes generated based on the professional development experiences of the participants according to their common characteristics, the themes of professional characteristics, professional development needs, professional development experiences and the relationship between MoNE and professional development were defined.

In the professional characteristics theme, the participants mentioned the characteristics that an ideal school administrator should have. Effective school management requires school administrators to have various professional qualities. In the literature, related to this research finding, Özdemir et al. (2020) emphasized the 21st century skills of school administrators and strategic leadership and stated that adaptability, farsightedness, and strategic decision-making abilities are critical for school administrators. This highlights the critical role of school administrators in adapting to the rapidly changing educational environment and anticipating the future. Sezgin et al. (2020) found that mentoring roles of school principals effectively increased academic achievement of schools. They emphasized the importance of mentoring processes in the professional and social development of administrators. Sağlam and Uçar (2022) claimed that creative leadership characteristics of school administrators have a positive relationship with organizational intelligence of schools. School leaders' focus on creativity and strategic thinking skills can increase the overall success of the school. Wahlstrom and Louis' (2008) study examines the importance of leadership in creating an appropriate learning environment is also highlighted. The findings emphasize the fundamental role of principals in shaping the educational experiences of teachers and students and explain the necessity of effective leadership to achieve positive outcomes in schools. According to Jayaweera et al. (2021), school administrators with strong leadership skills play a critical role in achieving more successful outcomes in terms of student performance

and school management. Leadership skills are crucial in determining the overall effectiveness of school administrators. Additionally, the concept of distributed leadership among school administrators is essential for the collective efficacy of teachers and the development of professional learning communities. A collaborative and distributed leadership approach among school administrators can significantly impact teachers' collective efficacy and the development of professional learning communities in schools.

Regarding professional development needs, participants listed the characteristics they believe an ideal school administrator should possess. These needs cover a wide range of dimensions. The literature suggests that school administrators require assistance with instructional leadership and teacher support. Further study is needed on the conditions that influence this assistance (Mangin, 2007). Additionally, studies have focused on areas such as the professional development needs of managers, leadership training, problem-solving, and strategic planning skills (Ganboosi & Ismail, 2022). The professional development needs of school administrators are an integral part of building trust, promoting collective participation and responsibility. These factors enable managers to foster cooperation and partnerships (Sang et al., 2020). Emmanuel (2022) emphasizes the significance of school administrators honing their diverse skills in areas such as leadership, communication, and problem-solving. These factors should be considered to effectively meet the needs of school administrators. The study of Garet et al. (2001), emphasizing the need for continuous and context-specific professional development, provides empirical evidence on the effects of different features of professional development on teachers' learning. At the same time, professional development that is effective is also linked to cooperation and sustainability (Mangin, 2007). From an education management perspective, school administrators should strive to be professionally equipped without external coercion in a changing and transforming environment (Fullan, 2002). Because today, the demand for new school administrators with managerial skills that can propel the school forward is increasing (Kersten & Kersten, 2006).

Under the theme of professional development experiences, participants provided examples of events they experienced during this process. The literature emphasizes the significance of addressing challenges faced by school administrators in professional development, such as cooperation, time management and resource availability (Badri et al., 2016). Spina's (2019) study emphasizes the importance of harmony between school administrators in professional development goals. The study highlights the critical role of harmony and integrity in professional development initiatives and explains

the significance of sharing common goals and objectives between school administrators. The results suggest that pursuing professional development goals together can significantly improve the effectiveness of professional development programs and promote a collaborative learning environment within schools. According to Oplatka (2004), school administrators' capacity to adapt various leadership styles to their practices within the school depends on their career development planning. However, many school administrators only perceive career development as being appointed to a senior position, assuming that they have completed their career development after arriving at these positions. In a way that confirms this situation, some studies have shown that school administrators are unable to continue their professional development processes effectively (Cohen and Hill, 2000; Drage, 2010). O'Sullivan (2010) claimed that school administrators' professional development needs do not receive enough attention, and therefore not enough work has been done on the issue. Matherson and Windle (2017) also noted that all school administrators participate in professional development programs in some way, but participants in these programs usually face a practice in the form of "*sit and go*".

In the theme of the relationship between the MoNE and professional development, participants expressed criticism towards the Ministry of Education's policies on professional development for school administrators. In Turkey, the Education Department affiliated with the General Directorate of Personnel, which operates under the MoNE, plans, and implements the professional development of school administrators (MoNE, 2019). In the principle of "*lifelong learning*" contained in the Regulation on In-service Education of the Department of Professional Development Support and Monitoring, it is mentioned that school administrators should participate in in-service training activities for their professional and personal development (MONE, 2022). Furthermore, it was assumed that the issue of teachers' qualifications, as outlined in the General Qualifications of the Teaching Profession (GQTP), would be effectively addressed and that these competencies would be applied seamlessly in relevant areas of application. However, these studies did not go beyond defining teacher competencies and the possible areas of use of these competencies and there were problems in converting the study results into practice (Buldu, 2014). Because the competencies have become inactive because their usefulness and validity were not carefully planned (Özoğlu, 2010).

Currently, the involvement of school administrators in professional development activities is becoming increasingly important. However, despite their necessity, their effectiveness is often insufficient (Kasalak, 2020). The lack of

effective professional development can be attributed to various factors. One such factor is the ministry-centered determination of the professional development needs of school administrators. Another is the fact that school administrators themselves bear the costs of education (Polat et al., 2018). Furthermore, a significant obstacle is the insufficient number and quality of education specialists available to meet the expectations of school administrators (Matherson and Windle, 2017). Additionally, the timing of the trainings is not appropriate, which reduces the impact of the activities (Kasalak, 2020). Consequently, in order for school administrators to adapt to scientific, technological, and social changes, it is necessary both to prepare professional development activities in a planned and programmed manner in partnership with the MoNE-university-school, and for school administrators to selflessly participate in these activities.

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CHAPTER V

THE SOURCES OF SELF-EFFICACY IN PRE-SERVICE TEACHER TRAINING*

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1. Introduction

Communicating the results of curriculum evaluation to stakeholders in detail could provide opportunities both for improving the curriculum and boosting student learning. To this end, it is necessary to monitor the extent to which evaluation results are reflected in the curriculum. Studies in which the stakeholders are informed of evaluation results (e.g. Greene, 1988; Ross, 2010) and those concerning the effectiveness of the feedback obtained from curriculum evaluation studies under various conditions (Worthen, 1990) are considerably limited in number in the literature. One of the critical variables in evaluating teacher training programs is teaching self-efficacy (TSE). However, there is a significant gap in the literature regarding the evaluation of these programs in terms of TSE, communication of them to stakeholders and examination of the curricular practices based on feedback. For the mentioned reasons, we conducted a project on the effects of the pre-service teacher training

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program on TSE with the need to investigate the reflections of stakeholders' discussions over evaluation results in curricular practices.

Within the scope of our project, we communicated the results of a previously conducted curriculum evaluation study to stakeholders through sharing and discussion panels, and held discussions on suggestions to improve the curriculum on the basis of the results. The aim of our project was to determine whether the curricular practices implemented following the sharing and discussion panels with faculty members and teacher candidates would affect the TSE of teacher candidates and to assess the progress of the program in terms of TSE sources. The qualitative outcomes of the project revealed that the sharing and discussion panels provided faculty members with the opportunity to revise and improve the curricular practices in terms of TSE; and helped teacher candidates to learn strategies of empowerment in this regard.

We believe that the knowledge and experience we gained while designing, implementing and finalizing the project are valuable in terms of the studies that could be conducted regarding TSE sources in pre-service teacher training programs. Therefore, in this chapter, we analysed the studies that could be carried out on pre-service teacher training programs to support teacher candidates' TSE in line with the literature; exemplifying some studies based on the project findings or the knowledge and experience we gained during the project process. In the conclusion section, we included the insights we reached with a holistic perspective. We expect that the section will be beneficial to program stakeholders, particularly teacher educators in boosting teacher candidates' TSE. Thus, we believe that teacher candidates' process of learning the profession will be facilitated, their readiness for the profession will be enhanced and students will also be indirectly affected positively.

2. Self-Efficacy for Teachers

Teachers who start their careers without being professionally ready face adaptation problems in the early years of their profession (The National Academy of Education Committee on Teacher Education, 2005; Öztürk, 2008; Yetkiner & Bıkmaz, 2019). In order to minimize these problems, it is recommended that pre-service teacher training programs should prepare them for the real conditions they will encounter while practicing the profession (Brashier & Norris, 2008) and that their TSE should be high (Kim & Cho, 2014). Both recommendations may indicate the need for improving teacher training programs in terms of TSE.

The literature states that TSE is associated with the level of readiness for professional life (Koçak Macun, Macun, & Safalı, 2019) and job satisfaction

(Vieluf, Kunter, & van de Vijver, 2013; Sokmen & Kilic, 2019), as well as being a strong predictor of teachers' tendency to change (Uslu & Çakar, 2018). Some studies, on the other hand, have revealed that teachers with high TSE are more committed to the profession (Grant, Jeon, & Buettner, 2019); have stronger professional identities (Cai, Zhu, & Tian, 2022); get resilient to problems and creative in teaching and students' learning (Goddard, Hoy, & Hoy, 2004), and can ensure participation in class even for poorly motivated students (Tschannen-Moran & Hoy, 2001).

The results obtained could demonstrate that teachers with higher TSE can better contribute to their students' learning. It is reported that TSE, one of the variables affecting the quality of education (Bandura, 1999; Tschannen-Moran & Hoy, 2001; Vieluf et al., 2013), has the greatest impact on the teaching performance evaluated (Klassen & Tze, 2014). Çobanoğlu (2011) found that TSE significantly predicted program practices. Given the importance of TSE in pre-service teacher training, as studies suggest (Akhtar, Shah, & Khan, 2019; Demirtaş, Cömert, & Özer 2011; Gök & Atalay Kabasakal, 2019), activities that can enhance this belief should deliberately be included into program practices.

3. The Sources of Teaching Self-Efficacy

TSE involves teachers' judgments regarding their competence in their teaching skills (Alazemi, 2019; Bandura, 1977; Goddard et al., 2004; Tschannen-Moran & Hoy, 2007). Teachers reach these judgments through cognitive, affective and social processes (Bandura, 2012). TSE can be increased through direct (mastery) experiences, vicarious experiences, verbal persuasion, physiological and affective strength and resilience (Bandura, 1977). According to Wertheim and Leyser (2002), teacher training programs that are effective in enhancing TSE encompass these sources. TSE can be boosted when teacher candidates' experiences regarding these sources are intense and positive. Although the literature includes fairly sufficient studies measuring TSE (Dellinger, Bobbett, Olivier, & Ellett, 2008; Kazu & Çam, 2019), there are a limited number of studies regarding its development in pre-service teacher training programs (e.g. Giles, Byrd, & Bendolph, 2016; Incikabi, 2013; Yürekli, 2015). Therefore, we provide explanations and examples for benefitting the sources of TSE in pre-service teacher training programs below.

3.1. Mastery Experiences

Mastery experiences are the strongest source of self-efficacy (Bandura, Adams, & Beyer, 1977; Gale, Alemdar, Cappelli, & Morris, 2021; Goddard et

al., 2004; Täschner, Dicke, Reinhold, & Holzberger, 2024; Tschannen-Moran & Hoy, 2007). Research has revealed the significance of mastery experiences in enhancing TSE (Arslan & Çolakoğlu, 2019; Benitez, 2020; Iaochite & da Costa Filho, 2020; Klassen & Durksen, 2014; Martins, Costa, & Onofre, 2014; Meristo, Ljalikova, & Löfström, 2013; Moulding, Stewart, & Dunmeyer, 2014; Peebles & Mendaglio, 2014; Yeung & Watkins, 2000). According to Goddard et al. (2004), the belief of efficacy tends to increase in individuals who are satisfied with their performance in mastery experiences, while it has a decreasing tendency in those who consider their performance unsuccessful. Thus, as Gurvitch and Metzler (2009) suggest, mastery experiences can begin at the early stages of teacher training programs; and TSE can be enhanced once this challenging process is overcome, without waiting until the later stages. In the longitudinal study conducted by Bümen and Ercan Özaydın (2013), teacher candidates' TSE was seen to increase significantly throughout the pre-service training program and by the end of their first year in the profession. The results may suggest that the pre-service teacher training program provided opportunities for mastery experiences, in a progressively increasing manner from the beginning to the end.

The key component of pre-service teacher training programs in terms of mastery experiences is doubtlessly teaching practice. Studies have revealed the negative effects of insufficient practice on TSE (*e.g.* Heeralal & Bayaga, 2011; Volante, 2006). Teacher candidates can acquire instructional skills through teaching practices (Christophersen, Elstad, Turmo, & Solhaug, 2016; Gurvitch & Metzler, 2009; Klassen & Durksen, 2014; Knoblauch & Chase, 2015; Şahin & Atay, 2010), and TSE can be boosted particularly with the mastery experiences gained in real-life educational settings (Iaochite & da Costa Filho, 2020; Meristo et al., 2013; Peebles & Mendaglio, 2014; Sciuchetti & Yssel, 2019). Klassen and Durksen (2014) found that teaching practice significantly enhanced teacher candidates' TSE while decreasing their stress levels. This finding indicates the critical importance of mastery experiences in relation to other sources of TSE.

The quality of teaching practices, as well as the length, is critical in terms of the development of TSE (Feuer, Floden, Chudowsky, & Ahn, 2013). Dixon, Hawe, and Grudnoff (2024) found that undertaking a TAI (Teaching as Inquiry) project fostered teacher candidates' TSE in teaching practicum. The structure of the school of practice and students' characteristics are also influential in the quality of implementation of teaching practices. For instance, Knoblauch and Chase (2015) concluded that teacher candidates' TSE was better supported in urban schools compared to those located in rural and suburban areas. Moulding

et al. (2014) found that teacher candidates' TSE increased when the students in the practicum school had high achievement in national exams. While it is important to gain teaching experience at schools with varying conditions, TSE may decline from the outset if the first experience takes place in a disadvantaged school, which could be difficult to compensate later. In this regard, starting mastery experiences at well-resourced schools and continuing in disadvantaged schools could prevent teacher candidates from experiencing a TSE shock. However, teacher candidates may need stronger social support in their practices in disadvantaged schools.

In order for teaching practices to be able to enhance TSE, they are expected to involve positive experiences and be supported by other sources of self-efficacy. Teacher candidates' positive perceptions of mastery experiences could contribute to their TSE. To this end, supporting reflective discussion and evaluation over the experience, and conducting this process with inclusive communication and social support in a setting free of judgments may provide teacher candidates with positive experiences. This process can bring invaluable opportunities of mastery experiences and social support for other teacher candidates, also strengthening physiological and affective well-being. Meristo et al. (2013) found that the self-reflection activities conducted by teacher candidates about their teaching experiences helped them make sense of their experiences, thereby increasing their TSE. Reflection on experiences may also be achieved through reflective writing. The reflective piece of writing in the following quote shows a candidate teacher's evaluation regarding the affective effects of the mastery experience they gained during teaching practice on their TSE.

Quote From a Teacher Candidate for Mastery Experiences

In the first few weeks, preparing plans, implementing the plans we prepared made me feel quite daunted. As I faced my fears, I kept asking myself "Will I be able to pursue this profession in the future?". Rather than the struggle, what made me worried was a negative answer I would possibly give to this question. I love kids a lot, yes, but when I entered the class and was to give an instruction, I felt extremely tense. So, I didn't feel I belonged to the class at all. Later, I started to get used to it. I realized that my previous worries were all about an adaptation issue. I saw how happy I was in the class and how I could integrate with the children. Once I had this awareness, I no longer struggled, neither when writing activity plans, not when implementing them. It was a process, and I personally believe it yielded absolutely positive results.

Sciuchetti and Yssel (2019) state that when teaching practices are conducted concurrently with the classes at university, and when the length and number of practices increased, teacher candidates' self-efficacy

concerning class and behavior management also improved. Building on this, another attempt to support mastery experience could be integrating theoretical courses with teaching practices. Otherwise, teacher candidates could be restricted in establishing connections between theory and practice. For instance, Boz and Boz (2010) suggest that undergraduate courses should prepare teacher candidates for teaching experiences at schools. In this respect, teacher candidates should be taught instructional methods and be provided with opportunities to implement these methods in the courses at university. Ma, McMaugh, and Cavanagh (2022) argue that more hands-on or role-play activities could be included in teacher training programs to lay a sound foundation for TSE before teacher candidates start actual teaching. As Ünver (2016) suggests, in order for theoretical knowledge to be reflected on teaching skills, theoretical course content and practices should be conducted simultaneously. This could encourage teacher candidates to transfer the theoretical knowledge they acquire into teaching skills in their teaching practices and help establish the connection between theory and practice, thus increasing their TSE.

The study conducted by Er (2020) may propose that teacher training programs should be based on the constructivist approach to enhance TSE. As a matter of fact, Gürbüzürk and Şad (2009) mention a positive correlation between self-efficacy beliefs about student engagement and constructivist teacher beliefs. Burger (2024) found positive effects of constructivist mentorship on TSE. Thus, using constructivism-based teaching methods in teacher training programs and providing mastery experience opportunities for teacher candidates with a learner-centred approach could increase their TSE. For example, Benitez (2020) determined that collaborative practices act as a mediator for vicarious experiences, verbal persuasion and physiological states. Peebles and Mendaglio (2014) provided teacher candidates with opportunities for discussion, working in small groups, collaboration and problem-solving experiences during classes, followed by an opportunity to gain experience in schools close to the university. The results of their study demonstrated that the strongest predictor of self-efficacy belief was individual teaching experiences, with self-efficacy having a positive relationship with small-group teaching and negative relationship with observation and large-group teaching. Based on these findings, a significant opportunity for mastery experiences could be created by conducting theoretical classes with a learner-centred teaching approach and supporting them with practice. TSE can be enhanced once this process is supported with the other sources of self-efficacy and teacher

candidates are provided with positive experiences, as in the following sample study by Yough (2019).

Sample Study

Tapping the Sources of Self-Efficacy: Promoting Preservice Teachers' Sense of Efficacy for Instructing English Language Learners

Yough, M., 2019

In the experimental study, attempts were made to promote the TSE of 107 pre-service teachers in the intervention group. For instance, the participants were asked to plan and implement five-minute teaching activities individually or in small groups in the educational psychology course. The presenters gained mastery experiences, while the activity served as a vicarious experience for those not presenting. The pre-service teachers were provided with clues they could utilize during the practice, were told that it would be challenging but they would manage it, were explained that they should see it as an opportunity to cope with challenges and were given social support through explicit feedback following the task. They were informed that any anxiety prior to teaching was a normal reaction, but were reminded that it was safe as the task took place in an artificial setting. Peers were encouraged to give positive feedback, which provided social support. TSE levels of the pre-service teachers who participated in these interventions were found to be significantly higher than those not receiving the intervention.

The contribution of microteaching to TSE is evident (Ahmed, 2019; Arsal, 2014; Karışan, 2017; Takkaç Tulgar, 2019; Yough, 2019). Gurvitch and Metzler (2009) found that TSE developed better through mastery experiences starting with microteaching practices at university and gradually expanding beyond the faculty compared to those starting with real students outside the faculty. Arsal (2014) showed that microteaching affected TSE more significantly than conventional instruction. Takkaç Tulgar (2019) listed the aspects of microteaching that elevate TSE as planning teaching in a more effective way, class management, coping with emotions, overcoming biases, self-confidence, applying theory into practice, receiving feedback, and recognizing strengths and weaknesses in the profession. Thus, rather than direct instruction or large-group teaching in pre-service teacher training programs; incorporating practice into theoretical courses, supporting instructional processes with more active teaching methods that place the learner in the centre such as individual work, small group work, discussion, collaborative learning, problem solving and microteaching, and providing opportunities for experiences in real-life or close-to-real-life settings would promote TSE. The following quote from an instructor who participated in our project may reflect their effort to provide teacher candidates with mastery experiences in the theoretical classes at university.

Quote From an Instructor for Mastery Experience in Faculty Courses

Instead of direct instruction, I try to put them into processes that would prompt them to think about “How does the theory manifest in practice?”, “How does it affect the student’s learning?” even when I explain a theory ... through experiences like brainstorming, creating a discussion, role-playing the situation, immerse them a little into the situation by diversifying what they can encounter when (teacher candidates) become teachers in a real classroom - which is not easy for us to think about this entirely, it is not easy to imagine or draw pictures.

Teacher candidates can also be provided with opportunities for high quality and intensive experiences in different settings through extracurricular activities. Social responsibility projects can help in this regard. Mergler, Carrington, Boman, Kimber, and Bland (2017) found that voluntary participation in community-based studies increased teacher candidates’ TSE. Aydogmus (2019) revealed the positive effect of social entrepreneurship perception on TSE. Martins et al. (2014) concluded that teaching experience with young learners before the pre-service teacher training and participation in extracurricular activities during teacher training improved TSE. The findings of our project also showed that gaining teaching experience in voluntary organizations or education associations, trying out their teaching skills in community service activities, using their teaching skills in the opportunities for paid or unpaid experiences created by their own efforts, working with students with different characteristics in these settings and being active in theoretical courses at the faculty had positive contributions to teacher candidates’ TSE. Examples of extracurricular activities that supported TSE of the teacher candidates’ in our project are presented below.

Quotes From Teacher Candidates for Extra Curricular Activities

I’m trying it out in my close circle: “Will I be able to cope?” ... The age gap between my siblings is especially small, they are almost the same age and they are completely different from each other... I try to teach them something... I think about which one I can handle, what they like, how I should behave, as if I brought two different groups together. One is an adolescent, one is just entering adolescence... I’m trying to gain experience with them.

Last year, an event was organized with the name of a scientific activity fest in which science experiments were mostly carried out and children from village schools were prioritized. I realized there that the experiments, especially concerning science, caught the children’s attention. Even the quietest child asked questions about what they saw differently and showed curiosity. I realized that if I include activities to be performed rather by my students, in which my students can actively participate, I can improve their critical thinking skills and creativity.

3.2. *Vicarious Experiences*

Besides mastery experiences, vicarious experiences are also among the sources that can develop TSE. The literature presents results showing that acquiring teaching behaviors indirectly by observing others enhances TSE (Arslan & Çolakoğlu, 2019; Halim, Sunarti, Puspita, & Lubis, 2019; Martins et al., 2014; Yough, 2019). For example, Yürekli found that the most significant effect on Math candidate teachers' TSE was generated by observation. Thanks to vicarious experiences, teacher candidates can go through the modelling process explained by Bandura (2012) in the social cognitive learning method. In this process, they can observe the experiences and reactions of their instructors, cooperating teachers and peers. Following the cognitive process in which they compare the results of their observations with their own characteristics, they can decide whether to model the behavior or not (Bandura, 1977, 2000; Goddard et al., 2004). Thus, teaching skills acquired through a cognitive process may elevate TSE.

Considering that teacher candidates cognitively process instructional behaviors by observing, instructors are recommended to organize their own behaviors accordingly. Yeung and Watkins (2000) state that one of the most important sources for the development of TSE is the instructors in practicum. Chan, Maneewan, and Koul (2023) determined that teacher candidates' TSE was associated with their perceptions of instructional behaviors of instructors. Therefore, instructors can pay attention to displaying appropriate and consistent teaching behaviors throughout teacher training. To this end, it is important that their discourse and behaviors are consistent both in the classes at the faculty and in teaching practices, they use the theory in their own instructional processes and they exhibit behavior that can be modelled. The following quote from an instructor who participated in our project may show the significance of the teaching behavior they exhibit in their own classes in terms of modelling.

Quote From an Instructor for Modelling

If I can support my theoretical classes with active learning techniques myself, for example, if I apply the Jigsaw technique when teaching a theory (teacher candidates) become incredibly motivated ... using the techniques to engage students into the task using active learning techniques, that is stepping beyond simply narration, or question-answer method, if I can support with methods and techniques that can motivate students... Asking for opinions with such questions as “Do you think this class should go like this?”, “What would you do?” at the end of each class... exemplifying and showing with my practices is the most effective way, I think. I believe exhibiting with your own behavior is the most important act in teaching attitudes, behaviors and values.

Cooperating teachers involved in teaching practices are also important sources for modelling. Klassen and Durksen (2014) found that the behaviors of cooperating teachers could support or impede teacher candidates' TSE, suggesting that cooperating teachers should be seen as primary sources for TSE and that suitable teachers should be assigned for this role. Even incorrect teacher behaviors in the practicum school can be instructive, teacher candidates can decide not to model such behaviors by putting them through cognitive processes. Martins et al. (2014) concluded that class observations enhanced TSE during teacher training, stating that teacher candidates benefit from class observations that provide vicarious experiences to identify incorrect teacher behaviors and find alternative ways. When their findings are approached in terms of reverse modelling, observing inappropriate teacher behaviors can also help in making deductions about what teacher candidates need to do. Observing their instructors', cooperating teachers' and peers' behaviors that are not effective on student learning may shape teacher candidates' decisions not to behave that way. In order to prevent modelling inappropriate teacher behaviors, discussing such behaviors with teacher candidates and producing alternatives concerning why and how to transform such behaviors can support the creation of more realistic TSE. In the following reflective piece of a teacher candidate, it can be seen that they adopted a selective and critical approach in modelling the cooperating teacher and conducted different practices.

Quote From a Teacher Candidate for Modelling

I realized that we should not emulate everything we see from our cooperating teachers or institutions, and approach more critically. They are of course very good, it is necessary to be able to say "I do not have to apply this (cooperating teachers' behavior) every time, I won't do this." During the observation week, I observed that our cooperating teacher mainly followed the book and generally conducted art activities that did not require the students to use their creativity. I won't do this.

As stated in Yough's study (2019), teacher candidates' TSE can elevate by observing their peers. Reflections, discussions and peer evaluations over these observations could incorporate significant opportunities for social support as well. Thus, instructors, cooperating teachers, other teachers observed and peers can enhance the TSE of teacher candidates' who prefer or can achieve indirect learning.

Watching films focusing on teachers in theoretical classes at the faculty can also form vicarious experiences. For instance, Halim et al. (2019) found that watching films that feature model teachers who succeed in challenging situations increased TSE. Similarly, sharing anecdotes, conducting case

studies or inviting guest teachers to theoretical classes can also be beneficial. Such activities can contribute to teacher candidates' strategy repertoires for possible solutions to instructional problems they can encounter under real-life conditions of the profession. Seminars, panels or conferences can also be organized where role-model teachers share their good practices within the scope of extracurricular activities. In addition, studies in which they participate voluntarily in community organizations within the scope of extracurricular activities can also support mastery and vicarious experiences. These can provide significant opportunities for both social support and modelling. The following comments from a teacher candidate involved in our project may illustrate the contribution that observing a teacher in a non-governmental organization can make to the development of critical and creative thinking in children.

Quote From a Teacher Candidate for Vicarious Experiences

When I voluntarily participated in studies in the Educational Volunteers Foundation of Türkiye, ... the classroom teacher there asked the second grade students "Do you think an apple sandwich is possible?". What can a regular sandwich we know contain; cheese, sausages, these are possible ingredients most can think of. But the second graders were surprised to hear the teacher's question "Do you think an apple sandwich is possible?". Some said "Yes!", some said "No!". Those who said yes gave various examples, saying "Then an eggplant sandwich is also possible" etc. The teacher did not judge their opinions in any way, did not say right or wrong. However, at that moment s/he opened a different door to children's thinking.

3.3. Social Persuasion

Social persuasion, also known as verbal persuasion, is another source that contributes to the improvement of TSE (Bandura, 2012; Siciliano, 2016; Tschannen-Moran & Hoy, 2007). The literature includes results indicating that social persuasion strengthens TSE (Alazemi, 2019; Alpaslan, Ulubey, & Yıldırım, 2018; Arslan & Çolakoğlu, 2019; Bjorklund, Daly, Ambrose, & van Es, 2020; Demir, 2019; Halim et al., 2019; Klassen & Durksen, 2014; Martins et al., 2014; Meristo et al., 2013; Moulding et al., 2014; Yough, 2019). For example, Demir (2019) found that positive perceptions of social persuasion enhanced self-efficacy beliefs. The results indicate that teacher candidates need social support from the other stakeholders of the program in order for their TSE to improve. The following quote from a teacher candidate who participated in our project can show the use of seeking help and the importance of their peers in terms of social support when faced with situations such as working with challenging students, which can decrease TSE.

Quote From a Teacher Candidate for Social Persuasion

A student in my class was different from other students, also developmentally. When I first encountered this student at the beginning of the first term. I had no idea what to do. I chose to talk to experienced teachers about this... I preferred to receive help from more experienced people, from my peers and teachers to answer the question "What can I do?".

Teacher candidates consider their cooperating teachers (Christophersen et al., 2016; Klassen & Durksen, 2014; Martins et al., 2014; Meristo et al., 2013; Moulding et al., 2014), practicum instructors (Alpaslan et al., 2018; Yeung & Watkins, 2000), and their peers (Bjorklund et al., 2020; Demir, 2019; Meristo et al., 2013) sources of social persuasion. In the study conducted by Martins et al. (2014), teacher candidates perceived the after-class dialogues with the cooperating teacher as an opportunity to receive general or specific feedback and found them persuasive in terms of coping with challenging situations. Alpaslan et al. (2018) concluded that teacher candidates' sense of commitment to the class is reinforced as they get more support from their classmates and instructors; however, they receive more social support from their families compared to their instructors. Encouraging words from their instructors for embarking on the learning tasks and receiving positive feedback for their work can enhance teacher candidates' TSE. In the meta-analysis study, Mok, Rupp, and Holzberger (2023) determined that the interventions of modelling, providing feedback on lesson plans and lessons and reflection had a moderate influence on TSE. Teacher candidates could receive social support from their instructors, cooperating teachers, peers and from families of students in certain cases for the learning tasks they undertake as part of program implementers. The following reflective piece from a teacher candidate can serve as an example of how being seen and appreciated as a teacher by a student at the practicum school provided social support.

Quote From a Teacher Candidate for Social Persuasion

In the third week of my observation, I was feeling a bit indifferent and unhappy. Worries were swirling around my mind with such questions as "Do I belong to this class?", "Can I do this job every day?". Today ... (a pre-schooler) came up, asked about my favourite colour, and left. Later, s/he came with a piece of paper saying "I made this for you (the name of the teacher candidate) teacher". This was the first gift I received from my students, s/he drew a flower on the paper in my favourite colour and presented it to me. I liked it a lot and it made me very happy.

Along with providing opportunities for mastery experiences, teaching practices are explicitly important in enhancing TSE in terms of the social

support to be given by the stakeholders involved in this process. According to Moulding et al. (2014) teacher candidates' opinions of the social support they receive during teaching practices are a significant mediating variable for TSE and there is a significant relationship between TSE and perceived cooperating teacher support. Meristo et al. (2013) found that teacher candidates needed assistance from their cooperating teachers and instructors. This assistance could be given in the form of encouraging talks to teacher candidates, recommending/lending resources or materials, providing feedback on their work, listening to the problems that prevent them from focusing on the practice and giving support to solve their problems etc. Thus, teacher candidates should feel that they have instructors and cooperating teachers who are ready to help them in the process of learning the profession. The following comments from an instructor who participated in our project can serve as an example of how to establish empathic communication with teacher candidates and provide explanatory and corrective feedback.

Quote From an Instructor for Verbal Persuasion

I always say (to teacher candidates), "... Do your best, be prepared." ... I realize they really make a lot of effort afterwards. I tell them that I had started from the same point, which motivates a lot, as well. I always encourage them by saying "There is nothing you can't overcome, as long as you want to." ... Distinguishing between feedback and correction is important. Instead of just saying "It didn't work", it is very effective to explain what did not really work. Approaching with words like "This (way) didn't work, I wonder if I would be better that way? What do you think?" ... If they go on being unaware of what they don't know, the same mistakes are repeated again and again. Therefore, it is valuable not only giving feedback, but also offering corrections.

Teacher candidates' TSE may be influenced during the learning process and by the quality of the feedback they receive. Meristo et al. (2013) stated that receiving positive feedback from their cooperating teachers enhanced teacher candidates' TSE. Akkuzu Güven and Uyulgan (2019) found no significant correlation between TSE and giving written, verbal and both written and verbal feedback, reporting that TSE of teacher candidates who received positive feedback and both positive and negative feedback was significantly higher than those receiving only negative feedback. Similarly, Takkaç Tulgar (2019) determined that receiving negative feedback from the instructors decreased teacher candidates' TSE. Hence, giving them constructive feedback, engaging in reflection and discussion with other teacher candidates, cooperating teachers and instructors over the experience, emphasizing strengths in the first place and aspects that are open to development later when giving feedback and restating

strengths in an appropriate manner may improve their TSE. In addition, such behavior displayed by teacher educators may facilitate modelling for teacher candidates and be reflected on their teaching skills.

3.4. Physiological and Affective States

According to Iaochite and da Costa Filho (2020), teacher candidates' TSE is elevated at a moderate level through mastery experiences and verbal persuasion. Temli Durmuş (2019) concluded that verbal persuasion occurs frequently through mastery and vicarious experiences, while physiological and affective states are experienced occasionally. Similarly, Ma and Cavanagh (2024) demonstrated that mastery and vicarious experiences were the most commonly reported sources of self-efficacy while social persuasion, and physiological and emotional states are not valued. The results may indicate that physiological and affective strength and resilience are neglected. However, it is important that teacher candidates feel physiologically and psychologically strong and resilient to enhance their TSE (Bandura, 1977, 2012). Some studies in the literature prove the effect of physiological and affective states as a source of self-efficacy (Arslan & Çolakoğlu, 2019; Bjorklund et al., 2020; Yough, 2019). For example, in the study conducted by Arslan and Çolakoğlu (2019), the sources that were found to be correlated with TSE were listed as affective states, mastery experiences, vicarious experiences and verbal persuasion, from the highest to the lowest. The results indicate the need for focusing on physiological and affective states in studies concerning pre-service teacher training programs.

Teacher educators may be expected to create appropriate opportunities of social support as explained above. For instance, Çetinkaya (2019) mentions that TSE is correlated negatively with autocratic attitude and laizzes-faire attitude and positively with democratic attitude. This finding could highlight the importance of democratic attitudes and behaviors of teacher educators. Klassen and Durksen (2014) found that teachers who thought that they were restricted by their cooperating teachers had decreased TSE and could even cease efforts to learn. This may suggest that teacher candidates' teaching experiences and attempts to try out different methods should not be hindered, but be encouraged instead. Meristo et al. (2013) determined that the presence of other teacher candidates in the practicum school created positive emotions and that TSE could sometimes be negatively affected by interpersonal relationships, reporting that situations such as not being accepted by some cooperating teachers and other teachers decreased TSE. Thus, in order to support affective resilience, teacher educators are expected to be accepting and delicate in their communication

language. The following comments from a participating instructor serve as an example of the need for positive language and respect in communication to motivate learning.

Quote From an Instructor for Affective States

(Teacher candidates) have affective needs, challenges. They always expect good treatment from us as adults... (As a teacher educator) you shouldn't make it too difficult, you shouldn't upset them... You should always use a positive language, invite them to act as adults, give a little room for emotions. They also embrace the lesson with such an approach... (They) are always in need of such social and emotional support... They definitely want to be valued. They expect to be respected... (This communication approach) increases their motivation.

In summary, it could be recommended that collaboration be established among instructors, cooperating teachers and teacher candidates in teaching practices and qualified cooperating teachers involve in practices in order to support teacher candidates affectively. Teacher candidates' adoption of the process can be facilitated by involving them into the planning of teaching. Instructors' and cooperating teachers' consistent and constructive feedback in the processes of planning, implementing and evaluating teacher candidates' teaching experiences can prevent possible conflicts that can be faced by teacher candidates and help them use their physiological and affective strength in their mastery experiences. All the stakeholders of the pre-service teacher training programs can create an environment of effective communication and interaction by exhibiting democratic attitudes and behaviors.

Social support can help teacher candidates to cope with stress and reduce their anxiety. Wang, Teng, and Liu (2023) state that self-efficacy and perceived social support help in coping with stress. The literature presents findings indicating that TSE increases as the level of anxiety decreases (Firat Durdukoca & Demir Atalay, 2019; Kahraman & Çelik, 2019). For instance, Goddard et al. (2004) determined that collective self-efficacy belief weakened with increased anxiety; and Boz and Boz (2010) associated the decrease in teacher candidates' anxiety levels with the increase in their senses of self-efficacy. Yurtseven (2019) found that teacher candidates' teaching anxiety predicted their TSE. States of anxiety and stress may also be related to individuals' perceptions of themselves and their past experiences; but teacher educators can offer teacher candidates experiences that could reduce stress and teaching anxiety. Having discussions over teaching anxiety with teacher candidates and providing suggestions of how to cope with it can be effective in this respect (Chance, 2000; McVey, 2004). Teacher candidates themselves can also make efforts and produce solutions to

cope with teaching anxiety. The following log from a teacher candidate can show how they cope with teaching anxiety by reflecting on their mistakes and generating solutions.

Quote From a Teacher Candidate for Affective States

The tension I felt while explaining the activities to children, the fear that they wouldn't understand, the disappointment when they did not listen at the early stages of the practice all started to fade away later on because I sat down and thought "Where am I going wrong?" and realizing my mistakes, I kept pushing myself to correct them.

Physiological and emotional resilience may make teacher candidates feel better about themselves in terms of such personal aspects as professional, intellectual, social and critical thinking or intrinsic motivation. For instance, intellectual development could reduce teaching anxiety professionally. The following quotes from two teacher candidates participating in our project can serve as examples for the awareness of intellectual empowerment and internal dialogue for intrinsic motivation.

Quotes From Teacher Candidates for Intellectual Stamina

I'll improve myself by reading more, researching, in the first place. I need to follow current events and keep up with technology... "What might children possibly ask?" These children ask very different questions. I need to research, inquire and keep up with current events to be prepared for them.

(In schools with different contexts) I may work anywhere. Challenges, of course there will be students from different backgrounds. "I can engage them in any way, with tolerance, understanding, patience and affection", I think. I motivate myself and enhance my competence this way.

Gök and Atalay Kabasakal (2019) determined that attitude towards the profession predicted TSE at a significant level, while finding a low level significant relationship between teacher candidates' TSE and teaching motivation. Demirtaş et al. (2011) reported a positive but low level significant relationship between teacher candidates' TSE and attitudes towards the profession; similarly, Kaçar (2018) determined a positive moderate significant relationship between these variables. Koçak Macun et al. (2019) state that teacher candidates who started the teacher training program rather willingly had significantly higher TSE levels than those who started unwillingly. Bjorklund et al. (2020) found that teacher candidates who had a strong sense of belonging to the program and asked for help from their peers had significantly higher levels of TSE compared to those who had a low sense of belonging and were unable to receive help. Studies indicate that considering

affective states when interacting with teacher candidates is important in terms of improving their TSE, and that there is a need for conducting teacher training programs to enable them to embark on the profession as teachers with high TSE by supporting their physiological and emotional strength and resilience. Therefore, in order for teacher candidates to develop a sense of ownership of the programs they attend and the profession of teaching they will be pursuing in the future, experiential activities can be employed in the program practices and the context of the program can be empowered in terms of social support.

4. Conclusion

According to Bandura (1989), the level of self-efficacy beliefs is affected by positive and negative experiences. While positive experiences elevate TSE (Aydilek Ciftci, Ozgun, & Erden, 2011); negative states such as problem students in the class may decrease it significantly (Christophersen et al., 2016; Şahin & Atay, 2010). Mastery experiences that provide opportunities to practice teaching skills could help teacher candidates to cope with teaching stress (Bandura, 1977). Modelling can enable teacher candidates to feel psychologically relieved without having mastery experiences that yield negative results. Social support may as well reduce teacher candidates' stress in performing their learning tasks. Marschall (2023) considers these sources as a significant mediator in the relationship between teacher candidates' knowledge and TSE. Thus, the sources of TSE should definitely be taken into consideration when planning, implementing and evaluating teacher training programs.

Furtado Nina et al. (2016) revealed an association among the sources of TSE. Ma, Cavanagh, and Mcmaugh (2022) found evident interactions among different sources. Hence, teacher educators should consider and implement the sources of TSE together. It could be misleading to expect that TSE will only improve through verbal persuasion. However, it could be more effective by being in the presence of successful models, positive mastery experiences and social support. Berg and Smith (2018) highlight that teacher educators should help teacher candidates to gain mastery experiences, display appropriate behaviors of verbal persuasion, act as role-models to provide vicarious experiences and guide them for physiological and affective states. However, in order to identify the variables or practices that increase or decrease TSE particularly in pre-service teacher training, program-specific evaluations should be conducted and attempts made to strengthen the aspects of the program that need development in terms of TSE.

Along with the above-mentioned sources, teacher candidates' individual characteristics can influence TSE as well. The fact that teacher candidates have a high or low level of general self-efficacy beliefs may determine the direction of TSE. Gökdağ Baltaoğlu and Güven (2019) stated that TSE can be associated with teacher candidates' learning strategies and styles as well. Additionally, teacher candidates' preferences for the sources of TSE may also vary. For example, while some teacher candidates may prefer vicarious experiences and benefit appropriately from this process, while others may need mastery experiences. Verbal persuasion could be effective for some teacher candidates but not for others. Teacher candidates' expectations may also vary concerning the content of the verbal persuasion message. Therefore, TSE should be examined considering the individual learner differences.

The experiences we gained during the project and in teacher training have shown that some critical steps can be taken to improve TSE in teacher training. We have summarized these efforts in the form of an appeal from teacher candidates to teacher educators below.

Would you like to promote my TSE? Then you can do the following:

- Plan long-term and intensive experiences expanded over time to help me gain experience.
- Help me gain mastery experience working with learners with different characteristics starting in well-conditioned schools and gradually moving towards disadvantaged schools.
- Let me see the results of my experiences.
- Implement activities for in-depth thinking and discussion to help me establish a connection between theory and practice.
- Provide me with guidance towards academic and social service projects.
- Serve as a good role model for me by adopting a learner-centred approach in your own teaching processes.
- Provide social support to me and to each other in order to help me develop a sense of belonging to the program.
- Notice my feelings; talk to me and give me advice on how to cope with my teaching anxiety.
- Motivate and encourage me in my learning process.
- Be open to communication and interaction with me, listen to me, value me, and respect me.
- Assist me in understanding theoretical knowledge to make me intellectually stronger.
- Observe my behaviors in my learning process, review my learning products and give me feedback.
- Support my development with your positive, explanatory, corrective and reflective feedback.
- Help me to live in favorable conditions to stay physiologically healthy.

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**II. SECTION
SCHOOL-FAMILY
CONNECTION**

CHAPTER VI

INVESTIGATION OF THE MATHEMATICAL REASONING AND EARLY LITERACY SKILLS OF CHILDREN LIVING IN SOCIOECONOMIC DISADVANTAGED REGIONS*

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1. Introduction

Early childhood period education directly affects school life and educational status of children in the following years in the short term and long term. When it comes to daily life skills in children's education, including academic success, mathematics skills and early reasoning skills are of great importance for them.

Mathematics is involved in every aspect of our lives. Through mathematics, we understand the new situations and concepts we encounter in our environment, analyze and synthesize these, and integrate them into our lives by activating problem-solving processes when necessary. One of the important skills used in these processes is reasoning skill. Mathematical reasoning skill is a skill that is used from the preschool period. Children explore the world and their environment and begin to realize patterns and new orders they encounter through

* Investigation Of The Mathematical Reasoning And Early Literacy Skills Of Children Living In Socioeconomic Disadvantaged Regions. Master's Thesis, Ege University

the mathematical reasoning skills they use in the early period. Besides, their reasoning skills and analyzing skills start to increase. Thus, growing children can use their life skills more effectively in the following processes by using their thinking and decision-making mechanisms more efficiently (Ergül, 2014).

In addition to mathematics, another skill area that directly affects children's development is the early literacy skills. The reading skill has many prerequisites. Early literacy skills are required for the reading-writing process. On the other hand, we can support children's school readiness process by supporting their language skills within the scope of early literacy skills. Besides, children develop their phonological awareness through early literacy skills and this encourages children for many new situations such as tending toward new stories and trying to write (Altınkaynak, 2019). In the studies in the literature, it is stated that early literacy skills strongly predict children's school success in their following experiences. It is seen that children's success in their first reading experiences is affected by this process (Kargın, Güldenoğlu, and Ergül, 2017).

There are relationships between early mathematical skills and early literacy skills in some areas. It especially draws attention that there is a relationship between phonological awareness, one of the early literacy skills, and early mathematical skills (Krajewski and Schneider, 2009).

Although early mathematical reasoning skills and early literacy skills that must be included in the practices that children can do in the preschool period directly affect school success of children in the following periods, there are different factors that can affect this success. One of them is the child's environment and family's socioeconomic level. Although education given to children is the same, achievements acquired from education may vary according to the interaction with the environment and differences in the socioeconomic level. It can be highly difficult to compensate for the effects caused by these differences (Suna and Özer, 2021).

Children living in difficult conditions in terms of socioeconomic levels are accepted as disadvantaged (Arnold and Doctoroff, 2003). The studies emphasize that if the environment where the child lives is a disadvantaged region or the child is a disadvantaged child s/he has more difficulties in education compared to her/his peers. While having early mathematical and early literacy skills is highly important for children and thought to be related to each other, these skills are of vital importance for children living in disadvantaged regions. Socioeconomic level (SEL) is an important factor for the education of children and it is also a risk factor. In the studies, it is stated that children in the low socioeconomic level generally have lower literacy rates compared to their

peers from communities in middle and upper SEL. In the studies conducted on the effect of families' socioeconomic level on mathematical skills, it was emphasized that children of disadvantaged families in terms of SEL show lower performances in mathematical skills (Starkey, Klein, and Wakeley, 2004; Unutkan, 2007). Similarly, Aram and Biron (2004) stated in their study that preschool and kindergarten students from lower SEL communities in Israel lag behind their peers in recognizing writing, phonological awareness, letter naming, writing words, and word recognition.

In addition to socioeconomic disadvantages, there are disadvantaged children in terms of health. The disadvantage can result from disabilities such as visual, mental, and hearing disability. For example, children with hearing impairment can be regarded as disadvantaged in terms of education compared to their peers. Akmeşe, Kol, Kirazlı, Suner, and Öğüt (2020) found in their study that students using cochlear implants fall behind their peers with normal hearing. Taking into account all of these, disadvantages cause a negative situation in terms of the academic success of children, regardless of the cause of the disadvantage. Thus, it is of great importance to properly support disadvantaged children in the early period.

2. Method

2.1 Research Design

The qualitative research method which is unbiased, which can reach numeric data, and which is observable was used in this study whose purpose is to investigate mathematical reasoning and early literacy skills of children living in socioeconomic disadvantaged regions. The study was designed in the relational research method which includes correlation and comparison, among survey models.

2.2 Research Group

This study's study group consists of 19 male and 17 female, 36 students in total who continued a state school affiliated with the Ministry of National Education (MEB) in a disadvantaged region in Yeşilçam region of Bornova District in Izmir Province, who were 60-82 months old with typical development, whose native language was Turkish, and actively continued preschool education in the spring term of the 2021-2022 academic year. The mean age of the children was 71.67 +/- 5.58 (min.: 60 months, max.: 82 months). The study group addressed in this study consists of preschool students from these schools

who participated in this study on a voluntary basis with the permission of their families.

2.3 Data Collection Tools

The parents were asked to fill in the demographic information form to obtain demographic information about the children within the context of the study. Besides, the Test of Early Literacy, Mathematical Reasoning Skills Assessment Test, and Home Literacy Scale were applied to the children to obtain data regarding the targeted goals.

2.3.1 Demographic Information Form and Parent Consent Form

A form in which demographic information is asked was designed by the researchers to receive information about 60-82-month-old children who constitute the study's study group and their families. This form included questions that aim to obtain personal information about the child and demographic characteristics of the family (age, educational status, income level, etc.). The parents were informed about the study and their consent was received.

2.3.2 The Test of Early Literacy

“The Test of Early Literacy (TEL)” developed by Kargin, Ergül, and Güldenöglü in 2015 was utilized to evaluate early literacy skills of children. It is aimed to evaluate early literacy skills of children with this assessment tool developed. This assessment tool is not an acquaintance tool, on the contrary, it aims to identify children who are at risk and need support. The TEL data uses cut-off scores determined for Ankara province as the sample. TEL consists of seven sub-dimensions which are “Vocabulary in Receptive Language, Vocabulary in Expressive Language, General Naming, Function Knowledge, Letter Knowledge, Phonological Awareness, and Listening Comprehension”. The TEL test consists of three booklets. There are explanations and instructors for the implementer. During the implementation, one point is given for the correct answers and zero point is given for the incorrect answers. The implementation duration of the test is approximately 20 minutes. The test battery includes instructions appropriate for each section, and children who are assessed according to these instructions are asked questions (Kargin et al., 2015).

2.3.3 Mathematical Reasoning Skills Assessment Tool

“Mathematical Reasoning Skills Assessment Tool (MRSAT)” developed by Ergül in 2014 was utilized to assess mathematical reasoning skills of children.

This assessment tool does not aim to diagnose, it aims to determine children at risk. MRSAT consists of 40 questions. 21 questions are for measurement, and 19 questions are in the field of data analysis-probability. There are 21 questions in inductive reasoning and 19 questions in deductive reasoning. The implementation is carried out one-on-one with the child. 28 questions in the tool are asked using pictures. Nine questions are asked to the children through predetermined materials. No material is used in the three questions. Instead, they are asked to the children verbally. The questions are scored between 0-5 points (Ergül, 2014).

2.3.4 Home Literacy Practices Scale

“Home Literacy Practices Scale (HLP) developed by Gengeç in 2022 was utilized to determine literacy practices carried out by the families with their children in the home environment. In the development process of the scale, 60-72 months old children were primarily targeted. The scale consisting of 17 items and five factors was developed as a result of the studies conducted in the research. The factors are “Phonological Awareness, Writing Activity, Book Reading Activity, Phonic Games, and Parent Reading Frequency” (Gengeç, 2022).

2.4 Data Analysis

SPSS 26 program was utilized in the data analysis within the scope of the study. The study results include the number and percentage values of categorical variables. Continuous variables’ normal distribution was tested with the Shapiro-Wilk test. The mean, standard deviation, minimum, and maximum values were calculated for the normally distributed continuous variables. The median value and interquartile range (IQR) values were calculated for the non-normally distributed continuous variables. In the data analysis of the study, the Independent sample t-test and One-way variance analysis (One-way ANOVA) were used for the normally distributed data. Mann Whitney U and Kruskal Wallis H tests were used for the non-normally distributed data. Spearman’s -Rho test was utilized to determine the relationship between the continuous variables in the study. A p-value of less than .05 was considered statistically significant.

3. Findings

Among the scores obtained from the TEL phonological awareness test, whether there was a statistical difference between groups in rhyme awareness, matching initial phoneme, matching last phoneme, segmenting sentences into

words, segmenting words into syllables, combining syllables, and deleting last phoneme was evaluated using Mann Whitney U test in terms of age. The results obtained are shown in Table 1.

Table 1: Results of Children's TEL Phonological Awareness Sub-Test Scores in terms of Age

TEL	Groups	N	Mean	Sum of Rank	U	P
Rhyme Awareness	60-72 months	19	18.37	349.00	159.0	.935
	72-82 months	17	18.65	317.00		
Matching Initial Phoneme	60-72 months	19	15.32	291.00	101.0	.043*
	72-82 months	17	22.06	375.00		
Matching Last Phoneme	60-72 months	19	17.58	334.00	144.0	.561
	72-82 months	17	19.53	332.00		
Segmenting Sentences into Words	60-72 months	19	18.00	342.00	152.0	.663
	72-82 months	17	19.06	324.00		
Segmenting Words into Syllables	60-72 months	19	18.47	351.00	161.0	.987
	72-82 months	17	18.53	315.00		
Combining Syllables	60-72 months	19	18.24	346.50	156.5	.871
	72-82 months	17	18.79	319.50		
Deleting Last Phoneme	60-72 months	19	19.68	374.00	139.0	.235
	72-82 months	17	17.18	292.00		

There was a statistically significant difference in TEL matching initial phoneme scores of the children who were included in the study in terms of age ($p=.043$), no statistically significant difference was observed in children's TEL rhyme awareness scores ($p=.935$), TEL matching last phoneme scores ($p=.561$), TEL segmenting sentences into words scores ($p=.663$), TEL segmenting words into syllables scores ($p=.987$), TEL combining syllables ($p=.871$), and TEL deleting last phoneme scores ($p=.235$) in terms of age.

Among the scores obtained from the TEL phonological awareness test, whether there was a statistical difference between groups in terms of rhyme awareness, matching initial phoneme, matching last phoneme, segmenting sentences into words, segmenting words into syllables, combining syllables, and deleting last phoneme was evaluated using Kruskal Wallis H test in terms of age of beginning kindergarten. The results obtained are shown in Table 2.

Table 2: Results of Children's TEL Phonological Awareness Sub-Test Scores in terms of Age of Beginning Kindergarten

TEL	Groups	N	Mean Rank	H	p
Rhyme Awareness	Below 60 months	8	19.44	.114	.945
	60-66 months	22	18.07		
	Above 66 months	6	18.83		
Matching Initial Phoneme	Below 60 months	8	11.31	6,727	.035*
	60-66 months	22	19.39		
	Above 66 months	6	24.83		
Matching Last Phoneme	Below 60 months	8	20.00	.230	.891
	60-66 months	22	18.09		
	Above 66 months	6	18.00		
Segmenting Sentences into Words	Below 60 months	8	21.75	3,755	.153
	60-66 months	22	16.64		
	Above 66 months	6	21.00		
Segmenting Words into Syllables	Below 60 months	8	19.19	2,270	.321
	60-66 months	22	16.80		
	Above 66 months	6	23.83		
Combining Syllables	Below 60 months	8	21.31	2.010	.366
	60-66 months	22	16.57		
	Above 66 months	6	21.83		
Deleting Last Phoneme	Below 60 months	8	16.00	1.610	.447
	60-66 months	22	19.18		
	Above 66 months	6	19.33		

There was a statistically significant difference in TEL matching initial phoneme scores of the children who were included in the study in terms of age of beginning kindergarten ($p=.035$), no statistically significant difference was observed in children's TEL rhyme awareness scores ($p=.945$), TEL matching last phoneme scores ($p=.891$), TEL segmenting sentences into words scores ($p=.153$), TEL segmenting words into syllables scores ($p=.321$), TEL combining syllables scores ($p=.366$), and TEL deleting last phoneme scores ($p=.447$) in terms of age of beginning kindergarten.

Among sub-tests of the home literacy practices scale applied, whether there was a statistical difference between groups in phonological awareness, writing activity, book reading activity, phonic games, and parent reading frequency

scores in groups was evaluated with Kruskal Wallis H test in terms of age of beginning kindergarten. The results obtained are shown in Table 3.

Table 3: Results of Children's Home Literacy Practices
Sub-Test Scores in terms of Age of Beginning Kindergarten

Home Literacy	Groups	N	Mean Rank	H	p
Phonological Awareness	Below 60 months	8	26.31	6.172	.046*
	60-66 months	22	16.93		
	Above 66 months	6	13.83		
Writing Activity	Below 60 months	8	17.50	1.585	.453
	60-66 months	22	17.55		
	Above 66 months	6	23.33		
Book Reading Activity	Below 60 months	8	19.75	.157	.924
	60-66 months	22	18.05		
	Above 66 months	6	18.50		
Phonic Games	Below 60 months	8	21.00	.809	.667
	60-66 months	22	18.25		
	Above 66 months	6	16.08		
Parent Reading Frequency	Below 60 months	8	16.94	2.520	.284
	60-66 months	22	20.50		
	Above 66 months	6	13.25		

A statistically significant difference was observed in HLP phonological awareness scores in terms of age of beginning kindergarten ($p=.046$), no statistically significant difference was found in HLP writing activity scores ($p=.453$), HLP book reading activity scores ($p=.924$), HLP phonic games scores ($p=.667$), HLP parent reading frequency scores ($p=.284$) in terms of age of beginning kindergarten.

The relationships between the variables regarding children and TEL, mathematical reasoning skills, and HLP were evaluated using Spearman's -Rho test. The results obtained are shown in Table 4.

Table 4: Relationship between the Variables Regarding Children and TEL, Mathematical Reasoning Skills, and HLP

Variables	1	2	3	4	5	6	7	8	9	10
1. Age	-									
2. Vocabulary	.121	-								
3. Phonological Awareness	.000	.644*	-							
4. Letter Knowledge	.085	.298	.034	-						
5. Listening Comprehension	-.135	.182	.342*	-.130	-					
6. TEL Total	.066	.922*	.826*	.353*	-					
7. Reasoning Total	-.208	.492*	.498*	.025	.506*	-				
8. Measurement	-.146	.447*	.539*	.047	.493*	.918*	-			
9. Data Analysis-Probability	-.242	.501*	.406*	.085	.486*	.920*	.732*	-		
10. Induction	-.131	.473*	.537*	.021	.494*	.948*	.926*	.822*	-	
11. Deduction	-.148	.443*	.340*	.057	.422*	.883*	.754*	.903*	.713*	-
12. HLP	-.048	.147	.246	.235	.230	.148	.107	.165	.181	.071

* $p < .05$

There found no relationships between the age of the children who were included in the study and TEL, mathematical reasoning skills, and HLP. A moderate linear relationship was found between TEL vocabulary knowledge and TEL phonological awareness and mathematical reasoning skills of the children ($r = .377-.644$). A moderate linear relationship was found between children's TEL phonological awareness and mathematical reasoning skills ($r = .340-.539$). A moderate linear relationship was observed between children's total TEL scores and mathematical reasoning skills ($r = .341-.506$). There was no relationship between children's HLP scores, TEL, mathematical reasoning skills, and HLP.

It is seen that no statistical difference was found in HLP phonological awareness scores of the children who participated in the study according to the education of mothers ($p = .962$). It is seen that no statistical difference in HLP writing activity scores was observed according to the education of mothers

($p=.187$). It is seen that there was no statistical difference in HLP book reading activity scores according to the education of mothers ($p=.088$). It is seen that no statistical difference was found in HLP phonic games scores according to the education of mothers ($p=.650$). It is seen that there was no statistical difference in HLP parent reading frequency scores according to the education of mothers ($p=.711$).

4. Results and Discussion

In this section, the results obtained in line with the sub-goals constituted to examine early mathematical reasoning skills and early literacy skills of children living in socioeconomic disadvantaged regions were discussed.

The first sub-goal, early mathematical reasoning skills of preschool period children living in socioeconomic disadvantaged regions were examined according to the demographic variables (age, gender, age of beginning kindergarten, and education status of the mother). When evaluating the results regarding this goal according to gender, it was seen that no significant difference was observed in mathematical reasoning sub-tests.

When the literature is examined, Aydın and Mertoğlu (2006), in the results of the study that examined the rhythm perceptions and mathematical reasoning skills of 5-6-year-old children, similarly stated that the variable of gender did not cause a statistically significant difference in mathematical reasoning skills. In another study, Özgür (2023) examined the predictive effect of executive function skills on mathematical reasoning skills in the early childhood period. In this study, it was found that the variable of gender did not cause a difference in mathematical reasoning. Güven and Öncü (2021) stated in their study that reasoning skills did not significantly differ according to gender. When the literature is examined, similar to our findings, it is seen that the variable of gender does not play an effective role in mathematical reasoning skills. In a study that examined the primary school readiness levels and mathematical skills of children, 60-72 months old 120 children who were in the preschool period were assessed (Unutkan, 2007). In the findings of the study, it was stated that no difference was observed according to the gender. The findings obtained from the literature show similarity with our findings.

When examining the children who were included in the study according to their ages, it was observed that no significant difference was found in sub-areas of mathematical reasoning (measurement, data analysis-probability, induction, and deduction). On the other hand, Almomani (2017) examined the 5-9 years old school-age children's development of mathematical reasoning skills in terms

of different variables and found that mathematical reasoning scores increased as the age increased. It is thought that the reason why our study's results are different from the literature is that the variable of age did not cause a significant difference since the study group's mean of age is 72 months and the age gap between children is low. Similar to the variable of age, it is seen in our study that the age of beginning kindergarten did not cause a significant difference in the sub-fields of mathematical reasoning. Although it is seen in our study that the age of beginning kindergarten did not cause a significant difference in the preschool period, it is stated in the studies in the literature that education started in the preschool period positively affects the school success in the following years. Preschool education provides a basis for children's academic and social lives. Besides, it is stated that children who start education in the preschool period adapt better to school (Güler and Onur, 2016).

It was seen that no significant difference was observed in sub-areas of mathematical reasoning regarding the education status of the mother. In the literature, Akmeşe et al. (2020), in a study they examined early mathematical reasoning skills of children with hearing loss and normal hearing, examined the relationship of the mothers' education level in the sub-dimensions of the mathematical reasoning skills scale. It was seen that the educational status of mothers of children with hearing loss caused a significant difference in mathematical reasoning total score and scores of sub-dimensions. In the studies conducted, it is observed that reasoning skills of the children are positively affected as the education level of mothers increases. When the parents' educational status is examined, the highest graduation level is high school level and there is no significant difference in the group in our study. Thus, it is thought that there was no significant difference according to the education levels of the mothers in our study.

In the second sub-goal, whether the early mathematical reasoning skills of preschool period children living in socioeconomic disadvantaged regions differ according to the demographic variables (age, gender, age of beginning kindergarten, and educational status of the mother), when the results are examined in terms of gender, it is seen that there was no significant difference in TEL total, phonological awareness, vocabulary, listening comprehension, and letter knowledge sub-tests.

When the literature is examined, Sağlam (2020), in a study that examined working memory and early literacy skills, found that no significant difference was observed in the sub-dimensions of the early literacy assessment tool in terms of gender. Harmandar (2022), in another study conducted to examine families'

preferences for language support and awareness of early literacy, stated that no significant difference was found in the concept of writing and word recognition which are the sub-dimensions of literacy skills in terms of children's gender. It is seen that the findings of the current study show similarity with the findings of the studies conducted in the literature. It is thought that the factor of gender is not a determinant in terms of early literacy skills according to the findings in the literature.

When the ages of the children who were included in the study were examined, it was seen that no significant difference was observed in TEL total, phonological awareness, vocabulary, listening comprehension, and letter knowledge sub-tests. Kargın, Ergül, Büyüköztürk, and Güldenoğlu (2015), in a study conducted to develop a test of early literacy (TEL) for kindergarten children, stated that the age of the children did not cause a significant difference in other sub-dimensions of TEL, except for function knowledge. The findings of our study show similarity with the results of the study by Kargın et al.

Similar to the variable of age, when the age of beginning kindergarten is examined, it is observed that there significant difference was found in TEL total, phonological awareness, vocabulary, listening comprehension, letter knowledge, and sub-test related to these sections. The mean age of beginning kindergarten in our sample group is 61 months. It is thought that there was a significant difference according to this variable since the months of beginning school are close to each other.

When the educational status of the mother is examined, it is observed that no significant difference was found in TEL total, phonological awareness, vocabulary, listening comprehension, and letter knowledge sub-tests. It was thought that the educational level did not cause a significant difference according to primary school and secondary school graduation since the highest educational level of the parents was high school. However, in the literature, there have been studies that show that there is a correlation between early literacy skills and the educational level of the mother. Sağlam (2020), in a study that examined working memory and early literacy skills, found that the scores of children whose mothers were high school graduates had lower scores in the sub-dimensions of early literacy skills than children whose mothers were university graduates. Harmandar (2022), in a study conducted on families' preferences for language support and awareness of early literacy, the support provided at home by mothers with a university degree or higher degree was statistically significantly higher than the high school graduate mothers, and their support was statistically significantly higher than the mothers with secondary school degree or lower.

In the third sub-goal, the relationship of home literacy scores of preschool period children living in socioeconomic disadvantaged regions with demographic variables, the following results were obtained.

It was found that phonological awareness, writing activity, phonic games, book reading activity, and parent reading frequency scores, which are the sub-tests of home literacy that are implemented to determine support for early literacy skills at home, did not differ significantly in the groups according to gender.

It was seen that scores of phonological awareness, writing activity, book reading activity, phonic games, and parent reading frequency, which are among sub-tests of home literacy, did not show a significant difference according to age.

It was seen that no significant difference was found between groups in the scores of phonological awareness, writing activity, book reading, phonic games, reading activity, and parent reading frequency, which are among sub-tests of home literacy, according to age of beginning school.

It was seen that scores of phonological awareness, writing activity, book reading activity, phonic games, and parent reading frequency, which are among sub-tests of home literacy, did not show a significant difference in terms of the educational status of the mother.

It was stated in the studies conducted that families should include children in the relevant activities during the process to support children to become good readers within the scope of early literacy skills. It is stated that family participation in supporting early literacy will be beneficial to increase children's success (White, 2016). White, in the doctoral thesis study, investigated whether there was a correlation between demographic characteristics and early literacy skills and family participation. They stated that socioeconomic level of the parents in the sample group they addressed showed a positive correlation in terms of participation in early literacy activities. They stated that demographic variables of age and education did not show a significant relationship with the active participation of parents in the process of early literacy skills. The findings obtained from this study show similarity with our study. Korat, Klein, and Segal-Drori (2007), in another study conducted on home literacy and early literacy, stated that socioeconomic level is the strongest support in children's development of early literacy when they focused on the home literacy and mother's mediation level. They also stated that mothers whose socioeconomic levels are higher than other mothers in the same group provide more mediation and support their children more (Korat et al., 2007).

In a study conducted by Gengeç, Güldenoğlu, and Kargın (2022), it was stated that there was a significant relationship between socioeconomic level and home literacy practices. In the literature, it can be said that socioeconomic level is directly related to the children's early literacy skills.

In our fourth theme, the answers to the question "Is there a significant relationship between preschool children's mathematical reasoning skills and early literacy skills in the early childhood period?" were sought. There found no relationship between the age of children who were included in the study and TEL, mathematical reasoning skills, and HLP. A positive correlation was found between EROT total score and MRSAT total scores. There found a moderate positive relationship between all areas and the total score of MRSAT and TEL phonological awareness and vocabulary.

When examining the literature, similar to the results of our study, Krajewski and Schneider (2009) stated that there was a relationship between mathematical reasoning and early literacy skills used in the early childhood period. They stated that phonological awareness skills enable children to realize and direct the words in number sequences within the scope of this relationship. Purpura, Hume, Sims, and Lonigan (2011), in another study, stated that early literacy skills and early mathematical skills were related to each other. It was seen that vocabulary, writing knowledge, and phonological awareness among early literacy skills are separately related to numerical knowledge. In a study that examined the significance of mathematical skills used in the preschool period for school readiness and adaptation of children, Phillips, Clancy-Menchetti, and Lonigan (2008) stated that while mathematical skills used in the preschool period are significant for school readiness and adaptation of children, these skills are related to other tasks such as reading comprehension, code solving, and spelling. They also stated that early mathematical skills are related to literacy skills with the language development of children. Moll, Snowling, Göbel, and Hulme (2015), found in their study that children at risk of dyslexia performed worse in arithmetic which has a general cognitive basis.

It was considered normal for literacy education to begin during the formal education period in previous periods, however, results of the studies conducted on literary skills showed that beginning this process in the preschool period provides a basis for the literacy process. Considering many studies in the literature, it is stated that early literacy skills affect children's reading or school success in the following periods. Besides early literacy skills, it is stated in the literature that mathematical skills in the early childhood period also affect children's success in the school period. Early interventions have the potential

to help the development of the basis that all children need to learn school mathematics. It is emphasized that without such help, it is almost certain that many disadvantaged students experience “a cascade of mathematical failure” and primary school children may have difficulty catching up with their peers who receive more mathematical support (Jordan and Levine, 2008). As it can be understood from this statement, mathematical skills are of great importance in the early childhood period. Children can explore their environment and world by using mathematical skills. They can also analyze the situations they encounter and reach conclusions through reasoning skills (Ergül, 2014). On the other hand, with the development of children’s mathematical skills, their school success in the following periods is also affected positively.

Vanluydt, Wijns, Torbeyns, and Van Dooren, (2021), in their study, investigated the mathematical development in the early childhood period in terms of modeling and proportional reasoning. They mentioned the pattern studies in mathematical success in the following periods and suggested that pattern studies should be conducted in the preschool period. Besides, the pattern studies mentioned are effective in the literacy process while modeling the letters and symbols or putting them in the correct order as well as on the mathematical skills. While early literacy and early mathematical reasoning skills are so significant for experiences and success of preschool period children in the following periods, the acquisition of these skills by socioeconomic disadvantaged children is of vital importance. The studies in the literature show that the educational performances of disadvantaged children in terms of SEL are lower. When examining the studies conducted within this scope, in a study conducted by Kargın et al. (2015), it was seen that the difference in SEL is in favor of the upper income group. It was also stated in the study that the situation is in favor of the middle level when the lower level and middle level are compared. It is seen also in other studies that the early literacy skills of children with upper SEL are more developed compared to others.

5. Conclusion

When examining the literature, it is seen that early literacy and early mathematical reasoning skills are examined in many separate studies. Their relationship with each other is examined in the limited number of studies, as a part of studies on different subjects, or by addressing these skills’ relationship with different skills under different titles. In this study, unlike other studies in the literature, early literacy skills and early mathematical skills of socioeconomic disadvantaged children and their relationship were examined specifically. Thus,

it was aimed for the children not to be affected by a different disadvantage in the following period in addition to their current disadvantage. According to the findings of our study, the perception of “Geography is destiny” or the disadvantage caused by the environment where they live can be minimized with a comprehensive early intervention program given in the preschool period. This study will shed light for many further studies and programs that will be conducted on socioeconomic disadvantaged children.

6. Suggestions

In conclusion, in this study, only the children living in socioeconomic disadvantaged regions were included in the study as the study group, and their mathematical reasoning skills and early literacy skills were examined. In this regard, the study findings are limited to only disadvantaged children in terms of SEL, thus, generalization is not possible for the children in other provinces and other SEL groups. Studies can also be conducted for the children in other provinces and other SEL groups.

As a result of the study, it is observed that early literacy skills and early mathematical reasoning skills of the children living in a disadvantaged region did not show differences according to the age, gender, age of beginning school, and educational status of the mother in their environment. Besides, it was seen that a relationship was found between early mathematical reasoning skills and early literacy skills. This finding shows that early mathematical reasoning skills and early literacy skills of children living in disadvantaged regions should be coordinately supported in a planned and systematic way for their experiences and school success in the following period.

There are suggestions for educators, families, and experts in line with the results obtained within the context of the study.

It is observed that early literacy skills and early mathematical reasoning skills are addressed separately in the conducted studies. Especially in our country, the number of studies that conducted on the relationship of these two or their effects on each other is limited. Considering that mathematical skills and early literacy skills obtained in the preschool period affect the following period of children’s lives, conducting studies that address these two skills together, especially if there is a disadvantage, becomes important.

This study is a study that will provide prior knowledge for further research and shed light for researchers. The number of students is limited in our study, the number of samples can be increased and a comparative study with other SEL groups can be carried out. Besides, longitudinal studies can be carried

out to observe the changes in the developmental period of children. Children's development can be monitored by applying intervention programs.

A positive effect can be obtained on children living in disadvantaged regions by providing preschool teachers with early literacy and early mathematical reasoning skills education. Accordingly, problems children living in disadvantaged regions encounter can be minimized and their success in the following period can be contributed to. Thus, differences that can occur between them and their peers in the upper SEL group can be minimized.

Inclusive assessment, intervention, and support programs that will include early literacy and early mathematical reasoning skills for preschool period children can be developed. Effective use of these programs can be monitored.

It is necessary to increase school-family cooperation in preschool institutions. Thus, studies conducted with children will not be limited to the school environment. Families can actively participate in this period by giving education to families of the children in the preschool period about what they can do for the development of early mathematical reasoning skills and early literacy skills at home. Active participation of families in the process will increase the memorability of the information given by the educators for the children and make generalization easier.

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CHAPTER VII

THE MEDIATING ROLE OF ACADEMIC CLIMATE IN THE RELATIONSHIP BETWEEN INSTRUCTIONAL LEADERSHIP AND FAMILY- SCHOOL CONNECTION

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1. Introduction

This chapter begins with a summary of recent trends and approaches used in research on family-school connection. Then, using this literature and quantitative data, the study employs a model to examine the mediating role of academic climate in the relationship between principal instructional leadership and family-school connection in Türkiye. Finally, the study offers recommendations for practitioners, researchers, and policymakers.

2. Recent Trends in Family-School Connection

Improving student achievement is a crucial concern in many countries. Recent studies have provided substantial evidence on how to enhance student achievement (Özdemir & Yalcin, 2019; Tan, Gao, & Shi, 2022). Bronfenbrenner's (1986) ecological systems theory offers a detailed account of the interconnected environmental structures that impact individual achievement across microsystems to macrosystems. Therefore, students' academic improvement is influenced by people, processes, and institutions at all levels, starting from their families to school and society. Previous studies have

indicated the importance of the school-family connection in improving student achievement (Castro et al., 2015; Hampden-Thompson & Galindo, 2017) and school improvement process (Alinsunurin, 2020). Family-school connection refers to the communication, interaction, and cooperation established between the school and the family during the student's educational process, particularly about their well-being and commitment. Effective family-school connection is crucial for enhancing student success, supporting their development, and improving the overall effectiveness of the educational process. This connection also increases student participation in their education and have a positive impact on their academic, social, and emotional development. This connection covers various dimensions, including academic achievement, social development, emotional well-being, behavior, and school engagement. Research has shown that parental involvement in their children's education, including communication with teachers and attendance at parent-teacher meetings, as well as supporting their children's studies at home, can lead to greater academic achievement (e.g. Özdemir, Gün, & Yirmibeş, 2023). However, families may be disengaged from the school due to various reasons, such as a closed atmosphere between the family and the school, negative attitudes of teachers towards parents, authoritarian behaviors of teachers, lack of importance given to parent-teacher meetings, or parents' belief that these meetings are organized for financial gain. Additionally, communication breakdowns may occur due to teachers' and parents' inability to allocate sufficient time. It is important to address these issues to improve parent-school relationships. To prevent these and similar issues, all stakeholders have important responsibilities. A healthy communication between parents and the school can be ensured by creating an environment of mutual trust, respect, honesty, and transparency. This can be achieved by sharing responsibilities, creating a flexible space for each other, and caring for one another. Additionally, a structure should be in place to provide a full flow of information. It is important to note that as the bond between the school and parents strengthens, the education and training process will become more effective, resulting in students receiving a higher quality education. The relationship between school and family has been important since the early years of our Republic. In the 2023 Education Vision of the Ministry of National Education (2018), announced in 2018, it was stated that an education and training system without active parental involvement has no chance of success. The vision defines student, family, teacher, and school as the four cornerstones. Therefore, the bond between school, teacher, family, and student is based on solid foundations (Gün, 2021).

The involvement of families in their children's education has been a topic since the 1960s and remains a prominent issue today. The Coleman report argued that the characteristics of the family environment in which the student grows up are more influential in explaining student achievement than school characteristics. Since the latter half of the 20th century, effective communication between schools and families has been considered a fundamental requirement for successful education.

2.1. Family Involvement Theory

There are several approaches to demonstrate how families can be involved in school activities. Epstein's (2018) framework addresses family and community involvement, parenting, communication, volunteering, learning at home, decision-making, and cooperation with the community. Grolnick, Benjet, Kurowski, and Apostoleris (1997) defines three dimensions of involvement: cognitive, emotional, and school-based. Some researchers distinguish between family involvement at home and at school, focusing on the place where family-teacher or family-child interactions occur (Gün, 2021). These approaches suggest that the connection between family and school is multidimensional.

Home-based involvement pertains to the activities parents engage in at home to aid their children's education. This involves engaging in discussions with their children regarding school-related issues, overseeing their development, directing home learning activities, and aiding with homework. Parental expectations for their children's academic performance were viewed as a type of home-based involvement in certain research. School-based involvement pertains to the actions and conduct of parents at school, like participating in parent-teacher meetings and school events. This involves engaging in school activities, such as volunteering in the classroom, participating on class trips, and contributing to schoolwork.

According to past research and practitioners (Epstein, 2018), the relationship between families and schools is guided by three perspectives:

1. *Families and schools have different responsibilities:* This approach suggests that families and schools have different objectives for student learning. The discrepancy arises from the bureaucratic framework of schools, which holds distinct objectives and standards compared to families. To tackle this issue, teachers should concentrate on instructing universal teaching methods while families participate in activities at home that match their children's interests and abilities.

2. *Families and schools have common responsibilities.* This perspective emphasizes the coordination, cooperation, and complementarity of schools and families and encourages communication and cooperation between the two institutions (family and school). The most fundamental feature of this perspective is the shared responsibilities of institutions. This perspective assumes that schools and families share responsibilities for the socialization and education of the child.

3. *Families and schools have distinct responsibilities.* Especially in early childhood, the responsibilities of the caregivers are crucial for the development of the child. This period shapes a child's personality and attitude towards learning in school. Families play a significant role in adapting necessary skills and enriching children's lives during the first few months. These experiences prepare children for social and cognitive aspects of educational life. Once children start school, teachers take on the responsibility of education.

2.2. Symbolic Interactionism Theory

In addition to the three approaches mentioned above, it is necessary to consider the theory of Symbolic Interactionism (Mead, 1934) for the family-school connection. This theory suggests that interactions with others play a crucial role in the formation of self-concept, personality, values, and beliefs. The theory posits that individuals direct their goals, behaviors, and attitudes towards meeting the expectations of others. It is important to note that this is a subjective evaluation and should be clearly marked as such. For example, Kulak (2022) conducted a qualitative study and found that social activities implemented in schools have a positive impact on parents' perceptions of schools.

2.3. Reference Group Theory

Merton (1968) posits argues that an individual or group's behavior is influenced by the attitudes and actions of the reference groups they identify with or feel they belong to. According to this perspective, teachers and parents can accept each other as reference groups when planning activities and implementing classroom practices. This can shape one's decisions according to the reference group. Teachers can provide parents with a reference that explains the school's perspective on education, which may increase parental involvement in school and classroom activities.

2.4. Conceptual Framework for Family-School Connection

Our review of research supports the notion that several factors can enhance the connection between families and schools. Figure 1 summarises the

conceptual model of overlapping family, school, and community influences on student learning.

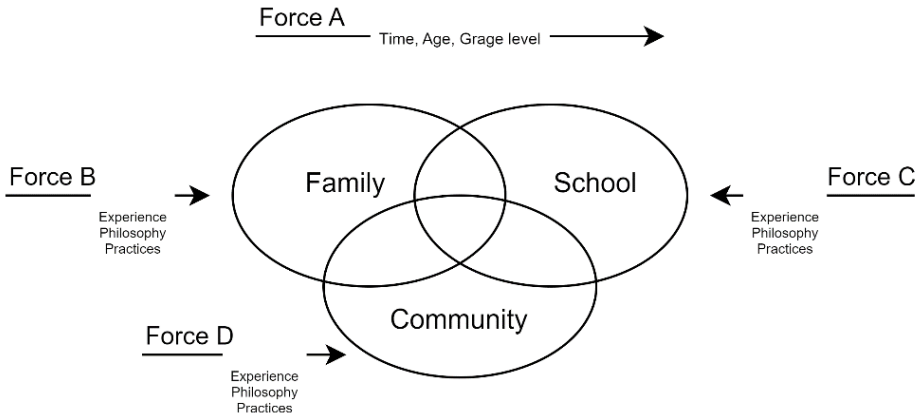


Figure 1. Overlapping family, school and community influences on student learning (Epstein, 2018)

The model consists of spheres that intersect with the experiences, educational perspectives, and practices of society, families, and schools. ‘Force A’ represents time, age, and grade level for students, families, and schools. During the first three years when the child is at home and the family provides the primary educational environment, teachers do not have direct interaction with the child’s learning. Therefore, there may be some overlap between the circles of family and school in Figure 1, particularly during early childhood and infancy. Parents can use the knowledge they gain from books, their own school experiences, paediatricians, educators, and other sources to prepare their children for school (Epstein, 2018).

One such factor in schools is the leadership behaviour of the school principal. Previous studies have provided convincing evidence that school principal plays a crucial role in creating an effective learning environment at school (Agasisti, Bowers, & Soncin, 2019; Hallinger, 2011). Elaine K. McEwan (2003) states in her book ‘10 Characteristics of Effective School Leaders’ that one of the most important traits of an effective principal is being an educator. The term ‘educator’ in this statement refers to the instructional leadership behaviours of the school administrator, rather than solely their role as an educator or their personal learning process. She used the term ‘educator’ to convey a more comprehensive concept. It is evident that creating an effective learning environment in schools requires attention to the instructional leadership behaviours of school administrators. According to Özdemir, Gümüş, Kılınç, and Bellibaş (2022) multiple studies have demonstrated a significant relationship between the instructional leadership

of the school principal and student achievement. However, there is currently no consensus among researchers regarding the leadership behaviours that are most predictive of the family-school connection. This creates several gaps in the literature that needs to be addressed. First, since most of the research has been conducted in English-speaking Western countries (e.g. Barr & Saltmarsh, 2014; Heinrichs, 2018; Jeynes, 2018), there is little empirical evidence in the literature that examines the link between family-school connection and principals' leadership behaviours in non-Western contexts (e.g. Yulianti, Denessen, Droop, & Veerman, 2022). Secondly, studies have documented the significant mediating function of several variables, such as teacher invitations on parental involvement. However, it is unclear whether the academic climate plays a similar role in this dynamic. To address these issues, our study utilises a conceptual framework with two primary objectives: To examine the direct impact of principal instructional leadership on the connection between families and schools. To test whether the academic climate mediates the relationship between the principal's instructional leadership and family-school connection.

3. Theoretical Foundations of Instructional Leadership and Academic Climate

3.1. Instructional Leadership

The concept of instructional leadership emerged in successful and effective institutions in western countries towards the end of the 1970s (Edmonds, 1979). When achieving educational goals in a school, it is crucial to uncover the hidden potential of school staff and ensure its sustainability (Yörük & Akdağ, 2010). Instructional leaders possess five key characteristics. These include having a vision, translating it into action, and fostering a supportive school environment. They also possess a deep understanding of how schools operate and are able to mobilize their knowledge to provide the necessary resources for achieving school goals. Strong management skills are essential for realizing these aims (Özdemir & Sezgin, 2002). When considering classroom and school level variables, the behaviors of the school principal is crucial. A principal who adopts a rational approach mainly prioritizes teaching processes, strives to improve the school atmosphere to benefit students, and increases interactions with teachers regarding classroom processes. Conversely, a school principal who adopts an emotional approach aims to foster a trusting environment within the school. This approach reflects the effort to manage the school not only with authority but also with influence. A school principal who internalizes an organizational approach mobilizes existing school resources to contribute to the professional

development of teachers and builds the school's structure on these foundations. School principal who adopts a familial approach aims to enhance parents' capacities and foster a supportive educational culture for students. Additionally, they implement practices to encourage parents' participation in school activities (Leithwood, Sun, & Schumacker, 2020).

3.2. Academic Climate

While researchers suggest that school climate can impact a school's learning environment and student achievement, there is no agreed-upon definition of the concept of climate (Balci, 2007). According to Hoy and Miskel (2005), school climate refers to the qualities related to the school environment that distinguish one school from another and affect the behaviors of each school member. Most definitions of school climate are framed within the context of human relations at school. School climate is an organizational characteristic that affects and is influenced by all members of the school community, including teachers, students, school administrators, and parents (Kurt & Çalık, 2010). The creation of a positive school climate is achieved when school principals, teachers, students, and staff feel valued as individuals. School members successfully contribute to this climate by fostering caring, social development, solidarity, communication, academic development, and participation. Although some aspects of the school climate may be positive, it is generally evaluated as either positive or negative, with some aspects being negative (Gonder & Hymes, 1994).

Schools with a positive school climate are places where a healthy climate is established to student learning. Teachers working in such a school usually emphasize academic success for students and help to set effective and accessible expectations for them. Teachers who are productive in the school are in a supportive, respectful, and friendly relationship with each other. Therefore, school principals also have a supportive relationship with other individuals in the school in a professional and positive sense. When they provide resources to a school, they contribute to school development. A positive climate in a school clearly indicates that the school has a sense of mission and is able to protect itself against external factors. A healthy and positive school climate enhances student achievement, boosts morale, and maximizes positive learning conditions (Wei, Williams, Chen, & Chang, 2010).

4. Methodology

This is a cross-sectional correlational study using a quantitative design. A cross-sectional correlational study examines the relationship between two or

more variables at a single point in time, looking for increases, decreases, or opposite changes (Leedy & Ormrod, 2020). The relationship between variables is observed while taking values (Karasar, 2007). Correlational studies investigate the co-existence between two or more variables.

4.1. Participants

The study's population consists of teachers working at all school stages in the central districts of Balıkesir province, located in the northwest of Türkiye, during the 2023-2024 school year. The province of Balıkesir has around 200,000 students and 17,000 teachers. As this study's data was collected from teachers, they formed our sample. We employed random sampling procedure and reached 262 teachers. Table 1 presents the teachers' demographic characteristics.

Table 1. Demographic characteristics of teachers

Variable	Category	n	%
Gender	Male	99	37.8
	Female	163	62.2
Number of students	200 and fewer	68	26
	201-500	67	25.6
	501-1000	85	32.4
	1001-2000	26	9.9
	2001-3000	8	3.1
	3001 and above	8	3.1
School stage	Kindergarten	198	7.3
	Primary school	158	5.7
	Low secondary school	40	15.3
	Secondary school	116	44.3
	Other	72	27.5
Teaching was their first-choice profession.	Yes	184	70.2
	No	78	29.8

Table 1 shows that 62.2% of the participants were female, indicating a female majority among teachers. In terms of the number of students, 26% of the participants work in schools with 200 or fewer students, 25.6% work in schools with 201-500 students, 32.4% work in schools with 501-1000 students, and the remaining almost 16% work in schools with 1001 or more students. Upon analyzing the distribution by institution type, 7.3% of teachers work in kindergarten, 5.7% in primary school, 15.3% in lower secondary school, 44.3%

in secondary school, and 27.5% in other institution types. Additionally, 70.2% of participants chose the teaching profession as their first choice, while 29.8% did not.

4.2. Instruments

This study employed three data collection instruments. One of these instruments was the instructional leadership scale, which was originally developed by Seashore Louis, Dretzke, and Wahlstrom (2010) and adapted into Turkish by Özdemir, Kılınç, and Turan (2023) scale consists of seven items and uses a 5-point response scale, ranging from 1 (never) to 5 (always). Sample items from the scale are provided below: During this academic year, how frequently did your school principal communicate the teaching goals to you? Additionally, how often did your school principal engage in discussions with you regarding teaching-related issues? The reliability level of McDonald's is high, with a ω of 0.881.

The family-school connection scale, developed by Özdemir, Gün, and Yirmibeş (2023), consists of four items and uses a 5-point response scale ranging from 1 (never) to 5 (always). Sample items from this scale include: The scale measures parental participation in school activities and efforts to ensure their children are ready to learn. The McDonald's reliability is high, with a ω of 0.876.

The TALIS (OECD, 2019) study provides a three-item academic climate scale that uses a 5-point response scale, ranging from 1 (very low) to 5 (very high). Sample expressions are provided. The teachers in this school have the ability to teach lessons according to their own curriculum. Additionally, the expectations of teachers in this school regarding student achievement are clear. The reliability of McDonald's is high with a ω of 0.846.

4.3. Data Analysis

The research data was collected via Google Form and analyzed using *Mplus* software in accordance with the research questions. Initially, we conducted a primary analysis, which included mean, standard deviation, and Pearson's product-moment correlation coefficient results. Subsequently, we used structural equation modelling (SEM) with mediating effects to test our study model, which aims to investigate the direct and indirect links between family-school connection and principals' instructional behaviors. SEM enables multivariate analysis by combining predictive relationships from regression analysis with the latent structures of factor analysis. Therefore, SEM can be viewed as an extension of

factor analysis and regression analysis (Çokluk, Şekercioğlu, & Büyüköztürk, 2012). A mediating variable is a variable that explains the relationship between independent (X) and dependent (Y) variables (Muthén, Muthén, & Asparouhov, 2017). The relationship between instructional leadership (X) and family-school connection (Y) is mediated by academic climate (M), as shown by the indirect effect of X on Y through M ($X \rightarrow M \rightarrow Y$). To verify the normal distribution of our model, we evaluated its skewness and kurtosis values. The data's skewness and kurtosis values indicate a normal distribution, ranging between +1 and -1.

5. Results

This section presents preliminary findings followed by testing of the model considered within the scope of the research.

5.1. Primarily Analysis

Table 2 presents the descriptive statistics of teachers' perceptions regarding school principals' instructional leadership, family-school connections, and academic climate.

Table 2. Descriptive statistics

Variable	Mean	SD	Pearson correlation coefficient					
			1	2	3	4	5	6
1. Family-school connection	2.89	0.99	1	0.36**	0.33**	-0.06	-0.08	0.21**
2. Instructional leadership	2.98	0.89		1	0.48**	-0.02	0.08	-0.03
3. Academic climate	3.48	0.91			1	0.10	-0.04	0.01
4. School size	-	-				1	0.16*	-0.09
5. School stage (1=secondary)	59.9%	-					1	0.20**
6. Teaching career (1=yes)	70.2%	-						1

Table 2 shows that the mean score for teachers' perceptions of family-school connection is 2.89 with a standard deviation of 0.99, indicating a moderate level of linkages between families and schools. This suggests that families are moderately involved in schooling, preparing their children to learn and have moderate expectations of how to achieve. In addition, teachers' perception of principals' instructional leadership is 2.98 (SD=0.89). This indicates a moderate

level of principals' instructional leadership behaviors, such as emphasizing instructional goals and discussing instructional issues with teachers. The academic climate perception of teachers in their school is at a high level ($M=3.48$, $SD=0.91$), indicating that they have high expectations for improving student achievement. The correlation analysis reveals a moderate level of correlation between instructional leadership and academic climate ($r=0.48$, $p<0.01$), as well as family-school connection ($r=0.36$, $p<0.01$).

5.2. Model Test

The study's research questions aimed to investigate the direct link between principal instructional leadership and family-school connection, and the indirect link via academic climate, respectively. To achieve this, a mediation model ($X \rightarrow Z \rightarrow Y$) was tested, as shown in Figure 2.

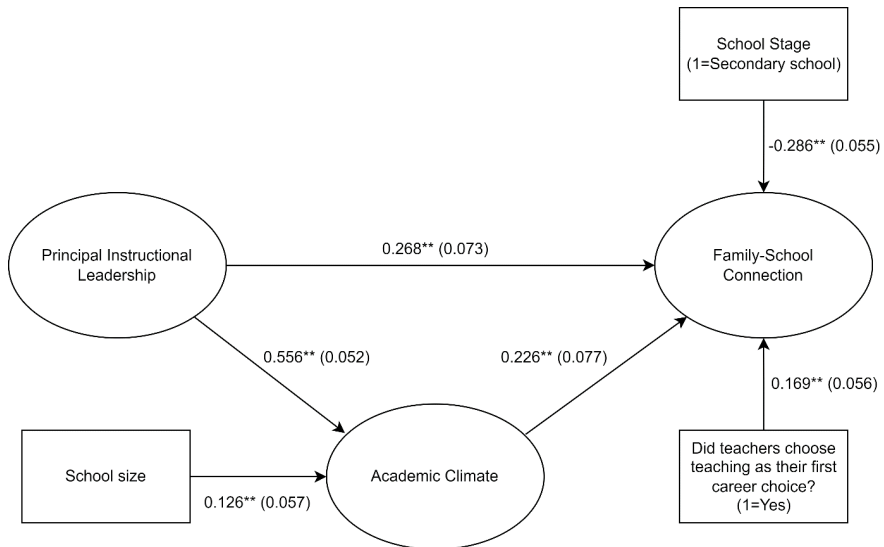


Figure 2. The mediating role of academic climate in the relationship between school principal's instructional leadership and family-school connection

Figure 1 shows that the instructional leadership behaviors of school principals have a direct and significant effect on family-school connection ($\beta=0.268$, $p<0.05$). Moreover, academic climate also significantly impacts family-school connection with a level of $\beta=0.226$ ($p<0.05$). Furthermore, instructional leadership behaviors significantly influence academic climate with a level of $\beta=0.556$ ($p<0.05$). It is important to note that academic climate plays a mediating role in the relationship between the instructional leadership of the school principal and family-school connection.

6. Conclusion: A Model of Effective Family-School Connection

The study reveals that the level of family-school connection is moderate, with some families participating in school activities and others not. This perception may be due to the low interest and willingness of families to engage with this issue, and their inability to find time to meet with teachers. It is important to note that this is a subjective evaluation and should be clearly marked as such. In a qualitative study conducted by Çayır, Çayır, Ada, and Gönenç (2023), some families demonstrated a lack of interest in their children's education. Additionally, the busy work schedules of working parents were identified as obstacles to school-family cooperation. Effective communication strategies and policies implemented by schools significantly impact the quality of school-family relations. Encouraging regular communication with families and supporting their involvement in the school can often lead to a stronger school-family relationship environment. Cultural and social structures significantly affect school-family relations. It is crucial to consider the attitudes and expectations of families towards school, which may vary across different regions of society, when evaluating and interpreting school-family relations.

The study shows that teachers perceive their principals' instructional leadership at a moderate level. This suggests that some principals provide instructional leadership by emphasizing instructional goals and discussing instructional issues with teachers. This result is consistent with some previous research. For instance, in a study conducted by Kurt (2013) with primary and secondary school teachers, it was concluded that school principals only occasionally performed instructional leadership behaviors. One of the possible reasons why school principals in the schools where the study was conducted could be expressed as not being competent in leadership field. In addition, their limited managerial authority and autonomy may have played a role in this perception. Additionally, the study found that teachers have a high perception of the academic climate in their school, indicating high expectations for improving student achievement.

The study examines the relationship between school principal's instructional leadership and school-family connection, with a focus on the mediating role of academic climate. The results of the mediating structural equation model indicate that school principal's instructional leadership behaviors have a low direct effect on school-family connection. However, academic climate was found to have a direct effect on school-family connection as well. The study also found that the school principal's instructional leadership behaviors had an impact on the academic climate. The academic climate, in turn, plays a

mediating role in the correlation between the school principal's instructional leadership and the connection between the school and families. The study's findings support previous research indicating a correlation between a school principal's leadership behaviors and the relationship between the school and families (Özdemir, Gün, & Yirmibeş, 2023). The study concluded that school principals who exhibit instructional leadership behaviors have a positive impact on the academic climate of the school, resulting in a relative increase in school-family connection. The improvement in student achievement can be attributed to the formation of a shared vision. This occurs when the school principal sets teaching goals, discusses teaching with teachers, and observes lessons. This finding supports the existing theory that school leadership and family involvement are important determinants of parental behavior. (Epstein, 2018). Planned activities aimed at increasing communication between schools, teachers, and families can lead to a greater overlap of home and school contexts, resulting in increased family involvement in schoolwork. For example, within the framework of symbolic interaction theory (Mead, 1934), the expectations of the school principals and teachers shape the families' behaviors to participate their children education. The study's findings align with the reference group theory. Therefore, the expectations of school staff may serve as a reference point for parents, potentially increasing their participation in school activities.

Suggestions for practice:

Firstly, provide in-service training to school principals and principal candidates to enhance their instructional leadership skills, school-family connections, and academic climate. The perceptions of school principals regarding these areas exhibit a certain level of diversity, but the averages are above the middle level. Following in-service and pre-service training, it is crucial to evaluate instructional leadership behaviors. School principals should be encouraged to pursue postgraduate education. Additionally, leadership development programs should be organized for school administrators, with a focus on strengthening their communication skills, motivational strategies, and team management. Given the positive and statistically significant relationship between instructional leadership and school-family connection, we recommend that school principals participate in leadership development programs. These programs can enhance the competence of instructional leaders in communicating with teachers and parents. Effective communication strategies between instructional leaders, teachers, and parents should be developed. To ensure an open communication environment, regular meetings, information notes, and other communication channels should be established. Increased

parental involvement in their children's education may lead to improved student achievement.

Secondly, due to the positive and statistically significant relationship between instructional leadership and academic climate, schools should organize various activities and programs to increase parental involvement. Lastly, we observed the impact of the instructional leadership behaviors of the school principal on the academic climate. Therefore, schools should focus on practices that create motivating learning environments for students and strengthen the academic climate, due to the mediating role of the academic climate in the relationship between the principal's instructional leadership and the school-family connection. Teaching methods, student participation, and achievement expectations should be addressed within this framework.

Suggestions for future research:

Future studies could be conducted beyond Balıkesir province. Additionally, future research could include a comparative study of both public and private schools. Finally, it is recommended to gather opinions from teachers in different regions, examine their perceptions in detail using a qualitative method, and investigate the effects of other variables.

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CHAPTER VIII

SCHOOL-FAMILY COOPERATION AS ONE OF THE COMPONENTS OF SCHOOL IMPROVEMENT ACCORDING TO THE SOCIOECONOMIC ENVIRONMENT OF SCHOOLS

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1. Introduction

The fact that individuals take the opportunity to discover their abilities and realize their potential in society depends on the quality of educational institutions. People around the world are educated in different ways and for quite different purposes; the issue of meeting the need for education requires the participation of society's all sectors and levels. Educational institutions' being able to achieve their goals requires the close cooperation of administrators, parents, and teachers (Porsuk and Kunt, 2012). The education and training process in schools is a behavioral process in which students' developmental stages should be monitored and all stakeholders should communicate. Thus, the fact that school and family can act together ensures the enrichment of the programs implemented, the sharing of experiences through the communication established between school and parents, and systematic support of students' learning (Ertem and Gökalp, 2018). However, the literature demonstrated that there are inadequacies (Çalık, 2007; Özbaş and Badavan, 2009; Seban and Perdeci, 2016; Şengönül, 2019) about school-family cooperation or family's

participation in school. Previous results revealed that families are highly supportive of positive results of students' participation in education during the learning phase (Erdoğan and Demir Kasımoğlu, 2010; Özdemir, Gün, and Yirmibeş, 2023). Besides, it becomes prominent in the development and support of students as the most important component in terms of taking precautions against the disadvantages in the families' structure and socioeconomic conditions and improving schools.

States around the world are experiencing difficulties in implementing their centrally planned innovations and reforms due to economic and administrative crises. Thus, it is necessary to include other stakeholders for physical resources, help, and support to achieve changes in national education. While the inclusion of parents in education individually and collectively becomes prominent as a method, the inclusion of other stakeholders in more extensive organizations such as educational committees and district education authorities is supportive. On the other hand, the inappropriateness of innovations for local needs causes problems in sustainability and creates a need for localization based on the cooperation of central authority. In this respect, participation of society in education becomes both a tool and objective of better education. Social participation in education plays a role in providing more resources, facilities, and places for the education system, making schools appropriate for local needs, making schools effective and efficient, monitoring attendance with input from the community, and helping the acceptance of schools by the society (Shaeffer, 1992). There is an increasing trend for participation and cooperation of family as one of the components of school in the educational process all over the world to guarantee that reforms planned on the central level on the daily functioning of an average school affiliated with the education bureaucracy will achieve the goals envisaged at the public level. This process demonstrates the need to expand to include other stakeholders to provide both financial and material resources and to assist in the planning and implementation of educational change.

School-family cooperation is described as a process that includes family participation, which enables students to increase their success (Özdemir et al., 2023), motivation, self-confidence, change participation and behavior, and is effective in children's development of positive attitudes towards teachers and the school. Families' participation in their children's education process and monitoring what their children learn in the school environment and what subjects are focused on contributes greatly to children's school and academic success. One of the main principles of the Basic Law of National Education No. 1739 (Ministry of National Education (MoNE, 1973) is school-family cooperation.

Families who closely cooperate with the school can directly share their observations about their children in the home environment with the teachers and they are expected to apply different methods implemented by teachers at school at home under the guidance of the teachers. On the other hand, it is expected to establish and maintain school-family cooperation in line with the Regulation on School-Parent Associations (MoNE, 2012). According to the literature, parents can contribute to the establishment of a highly convenient educational environment for the learning and development of children in an environment of cooperation with school (Çinkır and Nayır, 2017; Epstein, 1995). Furthermore, many factors such as the family structure, family's level of income, professions, education, etc. are effective in the school success of students. Previous studies (Gelbal, 2008; Seban and Perdeci, 2016) demonstrated that the socioeconomic limitations of the families, as well as the low educational levels of the families with low socioeconomic levels, are among the variables that predict academic success.

The socioeconomic environment is a phenomenon that shows the relationships between social and economic dimensions that become prominent in a community and the reflection of these relationships on the actions of individuals (Lim, 2019). Socioeconomic environment as a variable is the classification of a particular society or individuals according to their monthly incomes at different levels such as lower, middle, upper, etc. Coleman and Rainwater (1978; Cited by Sirgy and Samli, 1985) explained socioeconomic status as a social class defined as the relatively permanent and homogeneous divisions in society that can classify lifestyles, interests, and behaviors of individuals or families who share similar values in a society. Socioeconomic environment has an effective role on the individual's cognitive development and success (Aslanargun, 2007; Oelkers, 2002) due to the job status of parents, level of relationship between parents and child, cultural expectations, and religious tendencies. Thus, many students experience inequalities due to socioeconomic environment. When the time students spend with their families and friends is compared to the time they spend at school, the level of support from families to teachers is important for the student's individual development and success, as the time spent at school is much more limited. Families who cannot provide their children with a supportive educational environment reach a position in which they can positively affect their children's academic success through school-family cooperation even if their socioeconomic levels are not sufficient. Making a common effort of teachers and parents to create an appropriate learning environment for children and supporting their learning attempts in the

school environment provides teachers with an opportunity to be more successful in the practices they carry out in the classroom (Çinkır and Nayır, 2017). In this sense, the education and training process can be successful when school-family cooperation is provided.

Regardless of the socioeconomic structure of families, social justice is tried to be ensured by providing equal educational conditions to individuals through basic education. Conflict theory is a sociological tradition that systematically addresses the analysis of inequality patterns in power and interest relationships of social actors within the social structure (Evrenk, 2023). The conflict theory emphasized that those who can go to school and receive higher education have financial opportunities and higher norms, and individuals in lower socioeconomic environments whose financial opportunities are insufficient cannot benefit from these opportunities and this situation causes inequalities (İnan and Demir, 2018). Besides, regardless of the socioeconomic environments they belong to, individuals should have opportunities to take their places in society and fully realize their personalities and expectations in line with their demands and skills by eliminating the socioeconomic privileges they face in obtaining social status and roles (Dinçer, 2003; İnan and Demir, 2018; Ünal and Özsoy, 1999). On the other hand, primary education allows children who are born in an environment of deprivation caused by the socioeconomic status of their families to acquire basic skills. The aforementioned situation, the educational deprivation cycle can easily be broken by limiting access to primary education. At this point, families who are deprived of educational opportunities are given interaction opportunities through the relationships between school and family. The ability of schools to fulfill their responsibilities towards families depends primarily on families' determining the educational needs of their children. Thus, literature emphasized that school-parent associations which aim to include families in the school environment within the scope of the education system in Turkey cannot meet the expectations and cannot realize the goals as intended and stated that this situation has a negative effect on the academic success of students and decrease students' interest in school. At this point, Özbaş and Badavan (2009) said that individuals excluded and isolated from society will not be able to reach their educational goals. Based on the Critical Pedagogy Theory, Kincheloe (2018) stated that groups and individuals who suffer and whose lives are affected by discrimination and poverty should be vocalized and embodied. Individuals can create awareness of having the collective will to empathize with those who suffer and fight inequalities. Accordingly, school principals and teachers should care about students and families exposed to inequalities in terms of socioeconomic

environment and should strengthen cooperation. On the other hand, while differences in middle socioeconomic environment and upper socioeconomic environment conditions have an active role in family participation, different approaches and solutions are needed. Thus, knowing how families and schools perceive the phenomenon of family participation, with what kind of ways and how the communication between school and the families is evaluated, and what problems they experience in primary education institutions (primary school and secondary school) provides a healthier school-family communication and is important for enabling family participation (Binicioğlu, 2010). There are study findings that show families with low socioeconomic environment levels communicate with teachers through their children and the majority of these families refrain from school visits (Seban and Perdeci, 2016; Şengönül, 2019). In addition, Biber's (2003) study found that families who visit schools generally carry out these visits at irregular intervals, the duration of the visit and place of the meeting are not certain, and family members attend to parents' meetings only to learn about their children's grades. However, families with high socioeconomic environment levels constantly make mutual home visits in addition to communicating with teachers through their children. Besides, they visit school not only to learn about their children's grades but also to follow social activities and they try to learn about their children's attitudes towards lessons and their friend relationships. According to Çalık (2007), families' participation in activities in school can be prevented or encouraged. Improvement of school-family relations is effective in the process of changing parents' attitudes towards school when the socioeconomic environment levels are taken into account. In this regard, examining the primary school and secondary school parents' level of participation in their children's education, results stated that families who have children at the primary school level participate in their children's education, and more interested in the activities carried out in school, and more frequently get in contact with teachers. However, the participation level of families who have children at the secondary school level in their children's education decreases, they provide less guidance to their children, and less frequently get in contact with teachers. Previous studies highlighted that the participation of families who have children at primary school and secondary school levels differs in the school-family cooperation process (Doğan and Altunay, 2023). The important inference from studies is that socioeconomic environment conditions should be managed.

Considering the responsibility of education systems in training qualified manpower needed by society, increasing the quality of teachers and improving

the physical structures of educational institutions is not considered sufficient for education systems to reach a more qualified level. For providing future generations with the desired attitudes, education which is evaluated as a whole should not be based solely on the information provided at school; families of students and the socioeconomic environment where they grow up should be addressed within the scope of this process. Thus, it is possible to achieve the expected goal. Although this situation is generally accepted, educational institutions have challenged in the process of training the type of person required by the age and communicating with the environment at the required level. At this point, there are highly important responsibilities of school administrators, teachers, and families to coordinate with the environment, follow the environment closely, and transfer the communication established with the environment to the school for schools to achieve the planned success (Yiğit and Bayrakdar, 2006). In the light of the social open system theory, principals have important roles in managing the organization's socioeconomic environment conditions, making decisions about it, and implementing the decisions made (Özdemir, 2018). While taking the obligation of providing education and training, the school is expected to meet the demands and expectations of the environment where it is located, parents, teachers, and students at school simultaneously. This is possible with positive school-family cooperation. Similarly, according to Putnam's (2000) social capital theory, all stakeholders with whom the human resources of the organization communicate constitute its social capital. Thus, all parents of the school are an important element of the school and education process as stakeholders. The school principals are necessary to examine, implement, and encourage school-family cooperation in line with this task assigned. In this regard, school principals need to reach and include each parent in their children's educational process and conduct encouraging practices that increase the level of communication between parents and teachers by taking into account the students' socioeconomic environment levels. To increase the quality of the education-training process, reflect the positive effect of the socioeconomic environment, and decrease its negative effects, it is necessary to focus on school-family cooperation and identify the sources of problems to conduct in a qualified way.

The existing literature on school includes some studies that examine the school-family cooperation according to the socioeconomic environments, the impact of the level of socioeconomic environment on success, the level of the relationship between parents and the child, cultural expectations and religious tendencies on individuals' failure and success. (Aslanargun, 2007;

Biber, 2003; Oelkers, 2002). Besides, the effect of school-family cooperation and family participation on student's success is examined (Albez and Ada, 2017; Çinkır and Nayır, 2017; Ertem and Gökalg, 2018; Yıldırım and Dönmez, 2018). However, there is shortage of knowledge regarding the school-family cooperation according to the socioeconomic environment level of primary schools and secondary schools. The difference between this study and the literature is that findings that will support socioeconomic environment's being a variable in school-family cooperation and students' learning their responsibilities and rights and adapting these issues as a behavior pattern and increasing their academic success will be beneficial for the field. The findings of the study may also contribute to MoNe's (Ministry of National Education) development of social policies. In this sense, the main purpose of this study is to examine the comparison of school-family cooperation according to socioeconomic environment levels of primary schools and secondary schools and offer suggestions to overcome the related problems.

2. Method

In this study, it was aimed to compare school and family cooperation according to different socioeconomic environment levels of school in the school improvement process. For this purpose, the case study design, one of the qualitative research designs, was chosen to determine the opinions of parents in the schools selected.

2.1. Site Selection

Parents from 6 primary schools and 6 secondary schools constitute the universe of the study. 40 parents whose children study in schools with lower, middle, and upper socioeconomic levels chosen from this population constitute the study participants. The participants were determined using the maximum diversity sampling method, one of the purposive sampling methods. Purposive sampling is selecting cases rich in terms of information in line with the purpose of the study to conduct in-depth research. Purposive sampling is preferred when the researchers want to study one or more special cases that meet certain criteria or have certain characteristics (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, and Demirel, 2018). Maximum diversity sampling aims to identify similar and different cases in the study regarding the problem examined in the population and conduct the study based on these cases (Büyüköztürk et al., 2018). When examining the distribution of individual characteristics of the participants, we found that 85% of the study group consist of female parents and 15% are male

parents. Half of the study group consists of primary school and high school graduates. It was also found that the majority of the individuals constituting the study group have 1-2 children and the children are generally at the primary school level.

2.2. Data Collection

The semi-structured interview form was utilized in the study to collect data. While preparing the interview form, first the literature was scanned and similar studies were examined, then questions were written in line with the purpose of the study. The questions prepared were presented to the opinions of experts and academicians in terms of the purpose of the study and comprehensibility of the questions and the suggestions proposed by the experts were taken into account.

The interview form consists of two sections including Personal Information of the participants and questions regarding school-family cooperation in terms of school improvement. The Personal Information section included the variables of gender, educational status, monthly income level, number of children, and grade of the children. The section regarding school-family cooperation included the questions of “1. In your opinion, what is the purpose of school-family cooperation in terms of school improvement?” and “2. In your opinion, how is the quality of school-family cooperation at your school in terms of school improvement?” Probes were asked to receive in-depth information from the participants and structure the interview within the scope of the purpose of the study.

For the validity of data collection, the findings of the study were always described in line with the environment of the study, and quotations regarding the data obtained were included. For the consistency of the findings, the themes and the codes that constitute the themes form a meaningful whole in themselves was taken into account. In the data analysis process, the data were systematized and the consistency was constantly checked. During the data collection process, the literature was constantly examined and theoretical structure was used as a guide for the researcher. The theoretical framework was used as a guide during the process of analyzing the data obtained and forming the themes and codes.

For the external validity of the data collection tools, the study group in the study, and the characteristics of this group, details of the interview process were explained in detail in the methodology section of the study. Under the guidance of the theoretical framework, the characteristics of the group and the

environment were adhered to in the generalizations reached in line with the findings. Consistency of the results and generalizations reached in the study and the theoretical framework were taken into account.

For the reliability of data, the research questions were explicitly stated. The methodology of the study, study group, data collection tools, the process followed in the study, data analysis, and interpretation were determined and explained in line with the research questions. The data in the study were obtained using the interview form and the data were submitted without interpretation. In this regard, direct quotations were included. The semi-structured interview form was utilized to obtain data regarding school-family cooperation during school improvement according to the socioeconomic structures. Before the interview, the researchers stated that the opinions of the participants regarding the study would be used completely within the scope of the study process and verbal consents of the participants were obtained. The interview form was applied to the teachers face-to-face and the interviews were recorded with a voice recorder. Besides, written notes about the points considered imported in the responses were taken. The participants were asked to answer all the questions in the interview form. The interviews lasted approximately 40 minutes.

In semi-structured interviews, open-ended questions were directed to the participants, and their knowledge, emotions, experiences, and observations were tried to be reached. The transcription of the interviews lasted 25 hours and the data obtained from the interviews were 74 pages long. The interviews translated were organized in detail.

The participants' opinions were coded without using their names as per the principle of privacy. Accordingly, each participant was given a number with their code letter. During the coding process, parents in the low socioeconomic status were coded as LSES, parents in the middle socioeconomic status were coded as MSES, and parents in the upper socioeconomic level were coded as USES (LSES1, MSES17, etc.)

2.3. Data Analysis (Evidence)

The voice recordings obtained from the semi-structured interview were examined and analyzed after the interviews. Content analysis was utilized as the analysis technique. In content analysis, raw data were transferred into codes, and themes were obtained from the codes. After the data analysis, the answers given by the participants were directly cited, and common opinions or divisions of opinions were interpreted by the researchers.

The findings obtained as a result of the data analysis in line with the research problem are shown in Figure 1.

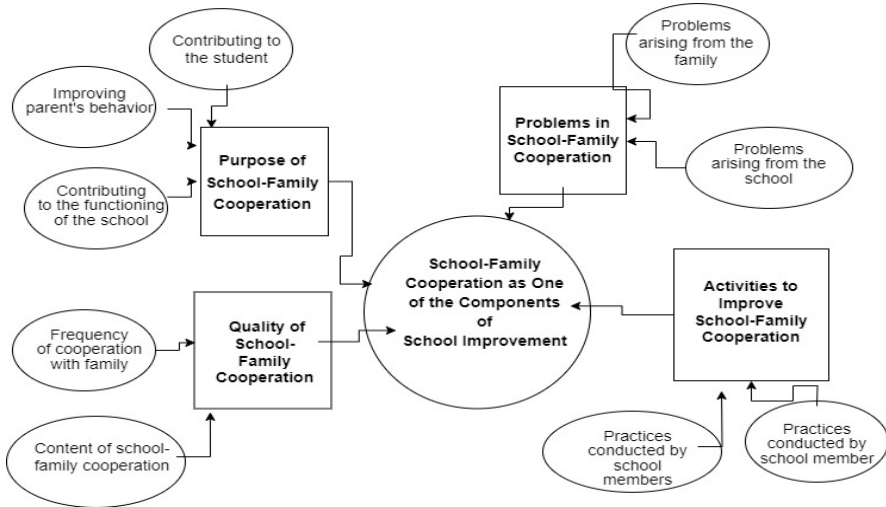


Figure 1. School-Family Cooperation as One of the Components of School Improvement

In the first sub-problem, 3 themes which are “*Contributing to the student, Improving parent’s behavior, and Contributing to the functioning of the school*” were constituted regarding the purpose of school-family cooperation. In the second sub-problem, 2 themes which are “*Frequency of cooperation and Content of cooperation*” were constituted regarding the quality of school-family cooperation. In the third sub-problem, 2 themes which are “*Problems arising from family*” and “*Problems arising from school*” were constituted. In the fourth sub-problem, 2 themes which are “*Practices carried out by parents and Practices carried out by school members*” were constituted.

3.Results

3.1. Purpose of School-Family Cooperation

Parents’ opinions about the purpose of school-family cooperation according to the socioeconomic environment statuses were examined. Primary school and secondary school parents’ opinions about the purpose of school-family cooperation were gathered under three themes which are “*Contributing to the student*” (n=43), “*Improving parent’s behavior*” (n=14), and “*Contributing to the functioning of the school*” (n=12).

Contributing to the Student: The most emphasized opinions of the parents about the purpose of school-family cooperation according to the socioeconomic environment statuses are related to the “*Contributing to the student*” theme. As the parents’ most important concern regarding the school is their own children, they give prominence to contributing to their own children as the most important purpose of school-family cooperation. In this theme, four codes which are “*contributing to academic success*” (n=21), “*preventing negative behaviors*” (n=12), “*increasing social development*” (n=7), and “*supporting special abilities*” (n=3) were constituted according to the opinions of the parents. Among these codes, the code of “*contributing to academic success*” was emphasized the most. The code of “*Contributing to academic success*” is related to involving parents and cooperating with the teachers to increase children’s academic success. A quotation from the opinions of some parents about the code of “*Contributing to academic success*” is as follows:

“When there is teacher-parent cooperation at school, it has a better effect on the child. I mean, this is not only related to the parent or it is not only related to the teacher, when both of them enhance (the cooperation), of course, it is more efficient for the child and her/his academic success becomes better.” (LSES2)

The second code emphasized most in the theme of “*Contributing to the student*” (n=12) is “*Preventing negative behaviors of students*”. The code of “*Preventing negative behaviors of students*” is related to school-family cooperation for informing families about the negative behaviors displayed by the students in school and preventing negative behaviors of their children. A quotation from the opinions of some parents about the code of “*Preventing negative behaviors of students*” is as follows:

“When they see negative behaviors of children, they get in contact with the school and family. We are like a family here, we are very comfortable with teachers and principals about this issue, when there is a problem with the children, we easily solve it.” (LSES1)

The theme of “*contributing to students*” shows that schools and parents aim to provide support to identify students’ characteristics and make them more successful, through school and family cooperation.

Improving Parent’s Behavior: The second theme emphasized in the opinions of the primary school and secondary school parents regarding the purposes of school-family cooperation is “*Improving Parent’s Behavior*”

(n=14). In this theme, three codes which are “*Encouraging the parent’s democratic participation* (n=6)”, “*Guiding the parent* (n=6)”, and “*Parent’s knowing their children* (n=2)” were constituted. Among these codes, the code of “*Encouraging the parent’s democratic participation*” was emphasized. The code of “*Encouraging the parent’s democratic participation*” is related to the fact that the parents have an active role in the activities and decisions to be made regarding the school, state their opinions in a democratic environment, and decisions are made in line with the opinions stated. With the participation of parents, the school is more comfortable with the tasks to be done since it receives support from the parents and completes some tasks that will be difficult for it more easily. The parents provide more support to the school since they can state their opinions at school. A quotation from the opinions of some parents about the code of “*Encouraging the parent’s democratic participation*” is as follows:

“We have established the school-family association this year. I mean, the opinions of parents are given importance, the parents are asked when a project will be carried out, our opinions are taken, and the appropriate ones are implemented. In line with the budget of people.”(LSES4)

The second code emphasized in the theme of “*Improving parent’s behavior*” is the code of “*Guiding the parent*” (n=6) The code of “*Guiding the parent*” is related to guiding the parents about a situation related to the health or discomfort of the student that the family is or is not aware of, a special ability, school adaptation, etc. A quotation from the opinions of some parents about the code of “*Guiding the parent*” is as follows:

“For example, my child is in the 1st grade now and I experience great difficulty. Even though s/he knows that s/he can do it, she/he wants to leave the classes in fear. Everybody, both the school counselor and our school principal, helps us at school. They suggest opinions. At least I practice in accordance with them, they are of great help. Of course, this is a situation related to the child. I think we made great progress based on the opinions the teachers suggested to us.” (MSES12).

Contributing to the Functioning of the School: The last theme obtained from the opinions of primary school and secondary school parents about the purposes of school-family cooperation is “*Contributing to the functioning*

of the school” (n=12). The theme of “*Contributing to the functioning of the school*” were constituted three codes which are “*Increasing the quality of education*” (n=6), “*Tools and materials related to education/training*” (n=3), and “*Providing support to disadvantaged students*” (n=3). Among these codes, “*Increasing the quality of education*” was emphasized most. The code of “*Increasing the quality of education*” is related to the school principals and school-family association that are responsible for increasing the quality of education in school. School-family associations should be active and express opinions in line with this responsibility. A quotation from the opinions of parents about the code of “*Increasing the quality of education*” is as follows:

“First of all, school-family cooperation is related to working to ensure that children at school receive education in a safer environment, in other words, as school-family association, ensuring that children receive more quality education. In general, quality education is being able to do something for children to start a quality life with mutual support.” (USES13)

“Another code in the theme of “*Contributing to the functioning of the school*” is the code of “*Providing educational materials*” (n=3). The code of “*Providing educational materials*” is related to the different materials needed by teachers in their lessons at school. In some situations, teachers demand these materials from parents. Parents’ help in providing these materials is highly important. School-family associations should inform parents about these issues and support teachers without causing misunderstandings. A quotation from the opinions of parents about the code of “*Providing educational materials*” is as follows:

“The school had some deficiencies in school-family cooperation. There was a need for some materials in the classroom where the parent would participate in and in the garden. I think school-family cooperation is a must for providing them. Because the support of parents should be provided in any circumstances.” (MSES36).

The theme of “*Contributing to the functioning of the school*” is related to creating a structure in each school to provide support to students who are in a less sufficient situation compared to other students. It is aimed for stakeholders to contribute to solving the financial, social, and psychological problems through school-family cooperation.

Considering the socioeconomic statuses of the parents, parents in the lower socioeconomic environment status and parents in the upper socioeconomic environment status gave prominence to the code of “*Contributing to academic success*” in the theme of “*Contributing to the student*”. Despite this, in the opinions of the parents in the middle socioeconomic environment status, the code of “*preventing negative behaviors*” became prominent in the theme of “*providing to the student*”. The importance attached to “*improving social development*” increases according to the economic statuses of parents. Parents in the upper economic status give more importance to “*social development*”. Parents have similar opinions on other issues.

3.2. *Quality of School-Family Cooperation*

Opinions of primary school and secondary school parents about the quality of school-family cooperation according to the socioeconomic environment statuses were examined. Opinions of primary school and secondary school parents about the quality of school-family cooperation according to the socioeconomic environment statuses are gathered around two themes which are “*Frequency of cooperation*” and “*Content of cooperation*”.

Frequency of Cooperation with Family: In the opinions of primary school and secondary school parents according to the socioeconomic environment levels, the theme of “*frequency of cooperation*” was emphasized most. In this theme, three codes which are “*Meeting in case of need*” (n=16), “*Meeting through parents’ meetings*” (n=3), and “*Meeting frequently*” (n=20) were constituted. Among these codes, the code of “*Meeting frequently*” was emphasized most. The code of “*Meeting frequently*” is related to the statements made as a result of some parents’ increasing the rate of meeting teachers while dropping their children off at school. When examining the frequency of meetings according to the socioeconomic statuses of parents, it is seen that parents in lower and middle socioeconomic statuses meet their teachers very frequently while parents in the upper socioeconomic status meet teachers in case of need. A quotation from the opinions of parents about the code of “*meeting frequently*” is as follows:

“Based on the problem of the child, when the child creates a problem, if there is a deficiency, cooperation is established. They call us when the children fall, they call when something happens to them. They call and inform us. We constantly go to school about courses. We can meet teachers one-on-one. We also have a WhatsApp group. As we can communicate through it, teachers do not need to call us.”
(LSES4)

The code of “*Meeting in case of need*” is related to the improvement of school-family cooperation within the scope of the particular needs of students or parents. It includes parents’ meeting teachers when there is a problem with the student, when teachers have needs regarding school activities, when there is a health problem of the student at school, or when something similar to these happens. A quotation from the opinions of parents about the code of “*meeting in case of need*” is as follows:

“We communicate every day, if I want, the school principal is here, deputy school principals are here, they listen to us when we have a problem. When we experience a problem, we can talk and ask every day, thanks to our school counselors.” (MSES12)

Opinions about the theme of “*Frequency of school-family cooperation*” vary in each school. The fact that intervals of school-family cooperation are so intermittent and unplanned is negative in terms of the educational process. It decreases the contribution of school-family cooperation in terms of school improvement. It is important to be planned in the school improvement process.

Content of School-Family Cooperation: In the theme of “*content of school-family cooperation*”, four codes which are “*Cooperation being beneficial*” (n=9), “*Receiving information*” (n=20), “*Parents being a guide*” (n=4), and “*Implementing the solutions together*” (n=2) were constituted. Among these codes, the code of “*receiving information*” was emphasized most. The code of “*receiving information*” is related to the fact that the content of the cooperation is in a quality that parents can receive information from teachers both about the courses and the social situation of their children. This means that school-family cooperation gives information about the behavioral differences of children at home and at school and about different friend groups of children at school and that parents find this information beneficial. A quotation from the opinions of parents about the code of “*Receiving information*” is as follows:

“I learn about my child’s situation, I mean, what s/he does in the classroom, when there is a problem with his/her friends, the teacher can observe, give information, and guide us. I mean, we are very pleased in this sense, it is highly beneficial.” (LSES31)

Another code emphasized in the theme of “*Content of school-family cooperation*” is the code of “*Cooperation being beneficial*”. The code of “*Cooperation being beneficial*” is related to parents’ emphasizing the benefits of school-family cooperation in different ways. According to parents, since the

children know that they are monitored by their families through cooperation with the school, they become more careful with their courses and behaviors and can study harder. Accordingly, the parents motivate themselves. Teachers become more motivated in the courses when they know that the parents constantly monitor their children. A quotation related to the code of “*Cooperation being beneficial*” is as follows:

“My wife comes as a parent constantly, when there is a problem with a teacher or about school, she can instantly reach and solve the problem. As the head of the school-family association, we can react and solve the problems simultaneously with our teachers, school principal, and other psychologist teachers. We don’t experience any problems definitely the solution immediately the family’s and we, I mean, solve the problem immediately.” (USES23).

Opinions about the theme of “*Content of school-family cooperation*” vary in each school. The quality of school-family cooperation expresses its content and extent. Carrying out school-family cooperation mutually increases its contribution in terms of school improvement. The fact that the extent of opinions related to “*content of school-family cooperation*” is narrow is evaluated as a dimension that should be improved in the school improvement process.

Examining the findings in line with the parents’ socioeconomic environment statuses, the code of “*receiving information*” became prominent in the opinions of parents regarding school-family cooperation in the theme of “*content of school-family cooperation*” in all statuses. Improvement of cooperation in the school improvement process enables parents to talk about everything with the school personnel, families to change their points of view towards their children and give more importance to the process, teachers to increase their motivation and become more efficient.

3.3. Problems in School-Family Cooperation

Parents’ opinions about the problems in school-family cooperation in terms of school improvement according to the socioeconomic environment statuses were examined. Two themes which are “*Problems arising from the family*” and “*Problems arising from the school*” were constituted in the opinions of primary school and secondary school parents about the problems in school-family cooperation.

Problems Arising from the Family: The theme of “*Problems arising from the family*” was emphasized most in the opinions of parents about the problems

in school-family cooperation according to the socioeconomic environment statuses in terms of school improvement. In the theme of “*Problems arising from the family*”, codes which are “*Problems in taking time off from work*” (n=18), “*Not believing in the necessity of cooperation*” (n=14), “*lack of interest in children*” (n=8), “*lack of time*” (n=6), “*Not taking responsibilities*” (n=4), “*Lack of education*” (n=6), and “*Lack of information regarding school*” (n=3) were defined. Among these codes, the code of “*Problems in taking time off from work*” (n=18) was emphasized most. The parents associated the code of “*Problems in taking time off from work*” with not being able to attend school meetings. The parents stated that it would be better to organize meetings and activities outside of working hours or at the weekend. When examining it according to the socioeconomic environment statuses, the parents in the middle socioeconomic environment statuses stated this issue. A quotation from the opinions of parents about the code of “*Problems in taking time off from work*” is as follows:

“Working moms and fathers cannot provide participation. Working moms cannot attend meetings. It is necessary for families to learn about the decisions taken and what was done in the meetings from classroom mothers or school. Our classroom has meetings every fifteen days. We have the meetings on the Saturday of the second week so that the working moms can attend.” (MSES19)

The second code emphasized most in the theme of “*Problems arising from the family*” is the code of “*Not believing in the necessity of cooperation*” (n=14). The code of “*Not believing in the necessity of cooperation*” is related to the fact that some parents believe that cooperation will not have positive results. These parents stated that some parents do not come to school due to various reasons and use statements such as “*We are only asked for money in the meetings*”. According to the socioeconomic environment statuses of the schools, the code of “*Not believing in the necessity of cooperation*” was included in the statements of parents in the middle and upper socioeconomic environment statuses. A quotation from the opinions of parents about the code of “*Not believing in the necessity of cooperation*” is as follows:

“When we come together in the school garden, they say “We don’t believe in cooperation because we are constantly asked for money when we attend meetings. The teacher mentions the deficiencies in the classroom. The school principal mentions the deficiencies of the

school.” Because of them, we also do not believe in the necessity of cooperation.” (USES21)

Opinions related to the theme of “*Problems arising from the family*” are a dimension that should be improved in the school improvement process. School administrations try to take precautions to increase cooperation in the school improvement process according to the structure of the family.

Problems Arising from the School: Five codes which are “*Lack of information*” (n=5), “*Lack of communication*” (n=4), “*Desire to obtain financial resources*” (n=3), “*Not being able to spare time*” (n=3), and “*Not taking into account parents’ expectations*” (n=1) were constituted in the theme of “*Problems arising from the school*” in the opinions of primary school and secondary school parents about the problems in school-family cooperation. Among these codes, the code of “*lack of information by the school administration*” (n=25) was emphasized most. The code of “*Lack of information by school administration*” is related to the inability of school administration to make plans and inform parents about some issues from the beginning of the year. A quotation from the opinions of parents about the code of “*lack of information by the school administration*” is as follows:

“Lack of information about school. We are informed from time to time in the process. Depending on the situation, it can be before two or three days but there are things to be planned at the beginning of the year. I think we should be informed about them in advance.” (USES20)

In the opinions of primary school and secondary school parents about the problems in school-family cooperation, the second code emphasized most in the theme of “*Problems arising from the school*” is the code of “*Lack of communication*” (n=4). In the code of “*Lack of communication*”, parents stated that sometimes the school administration and sometimes the teachers do not keep the communication warm and there is a lack of communication on some issues. While some parents referred to the school administration, some parents referred to the teachers about the lack of communication. The parents want the school administration to communicate with the parents more about the school activities and things to do about school. Some parents want teachers to communicate more with them both for giving information about the child and the problems of the child. A parent stated that her/his expectations were not met.

Some of the opinions of parents regarding the code of “*Lack of communication*” are as follows.

“When a very beautiful activity, a social activity, was organized, the parents came to school more willingly. The parents’ only means of escape is making some questioning. I think it is necessary to increase the number of activities and keep the communication between school and parents warm. We really wanted to state our demands in this way. We have a crowded school and may not be able to convey our demands to the relevant authority whenever we want. It turns into silence or we give up talking after a while. We give up coming to school.” (USES21)

Opinions related to the theme of “*Problems arising from the school*” are a dimension that should be improved in the school improvement process. The precautions to increase the cooperation in school improvement process vary according to the structure of the school.

Examining the codes related to the “*problems arising from the school*” according to the socioeconomic environment statuses of schools, parents in the lower economic environment status stated that they experience fewer problems with school administration compared to the middle and upper socioeconomic environment statuses. Parents in the middle and upper socioeconomic environment statuses conclude that their opinions are not taken into account because the problems are not solved due to some physical and structural barriers of the school even though they convey their expectations from school.

3.4. Activities to Improve School-Family Cooperation

Parents’ activities to improve school-family cooperation were examined according to the socioeconomic environment statuses in terms of school improvement. Opinions of primary school and secondary school parents about the activities to improve school-family cooperation were gathered under two themes which are “*Practices conducted by parents*” and “*Practices conducted by school members*”.

Practices Conducted by Parents: Regarding the activities to improve school-family cooperation according to socioeconomic environment levels in terms of school improvement, the theme of “*Practices conducted by parents*” became prominent. Regarding the theme of “*Practices conducted by parents*”, codes of “*Parents’ support for students’ participation in activities*” (n=13), “*Parents’ participation in classroom activities*” (n=5), “*Following up*

homework” (n=5), and “Carrying out activities with children at home” (n=6) were constituted. Parents give prominence to the code of “Parents’ support for students’ participation in activities” in the theme of “Practices conducted by parents”. The code of “Parents’ support for students’ participation in activities” is related to the parents’ support for children’s participation in sports activities, music concerts, theatre activities, folk dances, academic activities, and different social activities at school. The school expects parents to follow up on their children’s homework to improve school-family cooperation. Under the theme of “Practices conducted by parents”, one of the opinions of parents regarding the code of “Parents’ support for students’ participation in activities” are as follows:

“We carry out mother and child book reading activity. I also sent her/him to Turkish, mathematics, English, and guitar courses for students.” (LSES32)

With the code of “Participation in classroom activities”, it was stated that schools expect parents to participate in the activities in the classrooms where their children receive education to improve cooperation with families. A quotation from the opinions of a parent about the code of “Participation in classroom activities” in the theme of “Practices conducted by parents” is as follows:

“We carry out activities with the students in the classrooms one-on-one. A parent certainly comes each week. When our school opened, we had a family meeting but when there is a problem, the teacher calls and talks about the problem one-on-one without the need for a meeting.” (LSES1)

Opinions about the theme of “Practices conducted by parents” include some practices conducted in the school improvement process. It is understood that parents are provided with some responsibilities to increase cooperation in the improvement process based on the socioeconomic structures of schools.

Practices Conducted by School Members: In the theme of “Practices conducted by school members”, codes which are “Organizing individual development activities” (n=22), “Involving in the decision-making process” (n=5), “Organizing meetings” (n=6), “Organizing volunteer activities” (n=4), “Improving teacher-parent communication” (n=7), “Improving communication with school administration” (n=9), and “Making home visits” (n=8) are constituted. Among these codes, the code of “Organizing individual development activities” (n=22) was emphasized most. The code of “Organizing

individual activities” is related to schools’ organizing development activities on various subjects for parents. These activities consist of seminars on issues such as educating children, communication with children, exam anxiety, and informatics. A quotation from the opinions of some parents about the code of “*Organizing individual development activities*” is as follows:

“There were seminars on nutrition for parents. I attended education on the development of children, Internet use, and studying regularly. They frequently say that we need to study systematically and spare time for it as my child is in the 8th grade, in other words, last year.”
(LSES28)

Another code that became prominent in the theme of “Practices conducted by school members” is “*Getting in contact with school administration*”. The code of “*Getting in contact with school administration*” is related to the school administration’s trying to use various and different ways to improve cooperation with parents. School administration gets in contact face-to-face or through telephone. Some parents stated that they have WhatsApp groups. School administrators inform parents about the issues such as the needs of the school or general problems of the school, and activities, besides, parents can communicate with school administrators about specific topics. Besides, the code of “*Improving teacher-parent communication*” has a similar purpose. The parents also added that teachers get in contact with parents through classroom mothers in primary schools. A quotation from the opinions of parents about the code of “*Getting in contact with school administration*” is as follows:

“My communication with the administrators is very comfortable, they are very close to us, and there is no wall between us. We can knock on their doors, go into their rooms, and talk about our problems whenever we want or they can tell us what we need to do or what they want. Besides, we can reach each other more easily as there are more social communication networks, WhatsApp, and telephones.”
(MSES18)

Opinions about the theme of “*Practices conducted by school members*” include some studies conducted in the school improvement process. School members carry out different tasks and responsibilities to increase cooperation in the improvement process based on the socioeconomic structures of schools.

Primary school and secondary school parents in all socioeconomic environment statuses stated similar opinions on the theme of “*Organizing individual development activities*” in their opinions about the activities to

improve school-family cooperation. The rate of school-family cooperation activities is higher in the schools in lower socioeconomic status compared to the schools in middle and upper socioeconomic environment statuses. It was stated that many things changed in the schools in lower socioeconomic environment levels, there was good interaction, and activities were carried out together in the school improvement period.

4. Conclusion: A Preliminary Model of School-Family Cooperation

In this study that compares parents' opinions about school-family cooperation according to the socioeconomic environment status in terms of school improvement, themes of *contributing to the student*, *improving parents' behavior*, and *contributing to the functioning of school* were identified regarding the purpose of school-family cooperation. Among these themes, the theme of *"contributing to the student"* became prominent in all three socioeconomic statuses. The most data were obtained on *"Contributing to academic success"* and *"preventing negative behaviors"* in the theme of *"Contributing to the student"*. While the code of *"Contributing to academic success"* became prominent in the theme of *"Contributing to the student"* in the opinions of parents in lower and upper socioeconomic statuses, the code of *"Preventing negative behaviors"* became prominent in the theme of *"Contributing to the student"* in the opinions of parents in middle socioeconomic status. The issue of *"improving social development"* increases according to the economic status of parents. Parents in the upper economic environment give more importance to *"social development"*. Parents have similar opinions on other issues. The findings obtained in this study support the findings of the study conducted by Albez and Ada (2017). In the study conducted by Albez and Ada, parents stated that they need school-family cooperation to solve the problems of students and contribute to academic success. Besides, their results revealed that fragmented families in the lower socioeconomic environment need school-family cooperation more. In addition, they show similarity with the results of the study conducted by Yıldırım and Dönmez (2008). According to the study of Akar and Ceylan (2010) based on the factors that require school-family cooperation, school-family cooperation is beneficial for all stakeholders of the school. Extant literature and the current study have provided that the main expectation of the parents from school is to increase their children's academic success. Because most citizens want their children to study at university and have a good job as the unemployment rates are high in Turkey. This opinion is seen in the families with lower incomes more. They want their children to have a higher income than themselves and

earn a sufficient amount of money by graduating from university. In developed countries, children's social development becomes more prominent and children can be directed to art and sports. However, students' efforts to "contribute to social development" remain in the background. On the other hand, this means that the increase in the number of families with higher income levels who consider the purpose of school-family cooperation as "*improving social development*" supports this finding.

The opinions of parents about the quality of school-family cooperation consist of the themes of "*frequency of cooperation*" and "*content of cooperation*". Among these themes, "*frequency of school-family cooperation*" became prominent. Examining the findings in line with the parents' socioeconomic environment status, the code of "*receiving information*" became prominent in the opinions of parents regarding the school-family cooperation in the theme of "quality of cooperation" in all statuses. No direct findings have been found in the literature related to the findings obtained in this study. However, Albez and Ada's study (2017) emphasized that participation in the meetings held in the scope of school-family cooperation is an indicator of the interest in the school and student from a qualitative and quantitative perspective and while participation of parents with successful students is higher in these meetings, parents of unsuccessful students or students with behavior disorder show less participation. The study by Bayrakçı and Dizbay (2013) determined that there was no significant difference in determining administrators' opinions regarding the contribution of school-family association in personnel affairs and school administration according to job status, age status, and seniority status. Considering from a theoretical point of view, social open system theory emphasizes the importance of socioeconomic environment conditions of the organization. Accordingly, while carrying out education and training, the school needs to meet the demands and expectations of the environment where it is located, parents, teachers, and students at school simultaneously. This is possible with positive school-family cooperation. The quality of educational institutions in the process of training the type of person required by the age and communication with the environment increases success. Concerning practice, our results demonstrated that parents are much more conscious of the school improvement process compared to the past and especially primary school and secondary school parents meet both teachers and school administrators more frequently. The effect of technology use is great in this situation. All parents are contacted through WhatsApp groups and this brings parents-teachers and parents-other parents closer. Being intensely "receiving information" about the children's status of school-family cooperation can be related to the fact that

there are deficiencies in establishing other cooperation by school members or parents. On the other hand, especially in primary schools, parents can only learn about their children's status from the teachers since the number of exams and indicators that determine the level is low.

Categorizing the activities to improve school-family cooperation, two themes which are "Practices conducted by parents" and "Practices conducted by school members" were defined. While the theme of "*practices conducted by parents*" became prominent in these themes, parents stated to support for *students' participation in activities*. The most emphasized code was "*organizing individual development activities*" in the theme of "*practices conducted by school members*" regarding school-family cooperation. In the opinions of primary school and secondary school parents about activities to improve school-family cooperation, the theme of "*organizing individual development activities*" became prominent in all socioeconomic environment levels similarly. The rate of school-family cooperation activities is higher in the schools in lower socioeconomic status compared to the schools in middle and upper socioeconomic environment status. Considering the studies in the literature that can be associated with the findings of the study, as a result of the study carried out by Çetin and Taşkın (2016), it was found that parents with good socioeconomic status are more willing and active in the procedures of participating in the educational process. According to the Yıldırım and Dönmez's (2008) study results demonstrated that many methods and techniques such as parents' meetings, individual meetings, telephone calls, weekly meetings, home visits, classroom entertainment, mid-term reports, and sending news with students are used for cooperation in teacher-parent communication. Based on the Critical Pedagogy Theory, Kincheloe (2018) propose to have collective will and create awareness to fight inequalities. Accordingly, school principals and teachers should care about students and families exposed to inequalities in terms of socioeconomic environment and strengthen cooperation. This result may be explained that parents want their children's academic success to increase on one hand while they want their children's individual development in certain directions on the other hand. The reason why this situation becomes more prominent in families with higher incomes is that the economic opportunities of these families are sufficient. For individual development, students also want these kinds of activities to be carried out and express their opinions to their parents.

Another important finding is that the opinions of primary school and secondary school parents about the problems experienced in school-family

cooperation include the themes of “*problems arising from the family*” and “*problems arising from the school*”. The theme of “*problems arising from the family*” emphasized problems in taking time off from work. For “*Problems arising from the school*”, opinions related to “*lack of information*” were shared most. In line with the “*problems arising from the school*” according to the socioeconomic status of schools, parents in the lower economic environment status stated fewer problems with school administration compared to the middle and upper socioeconomic environment statuses. The results obtained here coincide with the study of Ogelman (2014). Ogelman stated that the problem of time was the reason why family participation did not occur. Similarly, our finding that there are issues with school-family cooperation is in line with previous studies (Porsuk and Kunt, 2014) about the financial problems of administrators, problems related to the education level of parents, problems caused by school-family meetings not being functional, and problems caused by teachers not knowing the parents well enough. Besides, according to the socioeconomic status variables of the region where the school is located, a significant difference was observed between lower and middle, and upper regions in the socioeconomic sense in the school and parent dimensions. In another study results (Çankır and Nayır, 2017) showed that parents support students’ success according to the variable of education and school-family cooperation standards are important but they are not implemented. Furthermore, parents think that they are not informed about the activities for school-family cooperation and do not contribute to education. Families stand by the school in the most effective ways for school-family cooperation in the education of the students. Albez and Ada (2017) found that the difficulties experienced in school-family cooperation. Participation in the meetings is an indicator of interest in the school and student and while participation of parents with successful students is higher in these meetings, parents of unsuccessful students or students with behavior disorders show less participation. Yıldırım and Dönmez (2008) emphasized some factors that prevent school-family cooperation such as the fact that mother and father work, some teachers teach in several schools, parents lobby among themselves, teachers’ firm and indifferent attitudes, parents’ timid attitudes, the educational levels of families, socioeconomic level, not taking the demands of parents into account. Likewise the Conflict Theory reveals the problem. While those who can go to school and receive higher education have financial opportunities and higher norms, individuals in lower socioeconomic environments whose financial opportunities are insufficient cannot benefit from these opportunities. This situation causes inequality (İnan and Demir, 2018). School-parent cooperation

can be increased in schools with the school improvement process and this inequality can be decreased. The reason for the findings of the present study may be that the parents have a higher rate of employment compared to the past. Parents cannot take time off from work and attend meetings because the meetings are held within working hours. "Lack of information" became prominent among "problems arising from the school". The increase in the expectations from educational institutions and schools due to the increase in access to information in all areas of life may have increased the will to cope with uncertainties in the educational process. This situation may explain the problems arising from the school of parents in middle and upper socioeconomic environment levels and problems of parents in the lower socioeconomic environment status related to themselves.

This study focused the opinions of primary school and secondary school parents about the school-family cooperation in the school improvement process, some similarities and differences were observed in some themes according to the socioeconomic environment status. The previous studies (Akar and Ceylan, 2010; Biber, 2003) underscore to requirement to eliminate probable communication gaps. For the improvement of school-family cooperation in terms of parents, they suggested to organize parents' meetings outside of working hours, inform parents who cannot attend the meeting, inform parents that the parents' meetings are not for financial purposes, explain to parents the functioning of school and contributions they can make, diversify meetings, and plan meetings taking into account the parents who have transportation difficulties. Yıldırım and Dönmez (2008) emphasized that there are practices that can be carried out such as various activities, bulletins, education for parents, communication, inviting parents to school, valuing parents' opinions, creating a common culture for school-family cooperation, the fact that parents feel that they are an important part of education, hanging expenses of school-family association on boards, presence of request and suggestion boxes at school, avoidance of insulting behaviors by teachers, giving seminars for parents, receiving opinions of parents and teachers, etc. for effective school-family cooperation. Our finding advances this line of research by illustrating that organising social activities at school in a way that parents can participate is important. With the development of technology, children become antisocial as they get acquainted with telephones from a very early age and play too many digital games. The place where children can socialize in city life is mostly schools. On the other hand, the reason why parents mentioned social activities in all socioeconomic statuses may be to meet teachers and other parents and solve communication problems in the school improvement process. In this regard, the suggestions of the study are as follows:

Since the purpose of school-family cooperation is “contributing to the student achievement” according to the primary school and secondary school parents in the lower socioeconomic environment status and upper socioeconomic environment status, informing parents about their children’s academic success at certain intervals, not only in case of problems, can comfort school administrators, teachers, and parents. Besides, activities and events that contribute to children’s social development can be included more for *preventing of student negative behaviors* according to the opinions of parents in the middle socioeconomic environment status. In this regard, activities and courses organized by municipalities can be benefited from in metropolitan cities.

Since the code of “receiving quality information” became prominent in the theme of “quality of cooperation” in all socioeconomic statuses according to the socioeconomic environment statuses of schools, the families’ contribution should increase for providing students’ development, as well as informing parents. Teachers can involve parents in activities in school and parents can be supported in guiding their children out of school. Since the rate of school-family cooperation activities is higher in the schools with low socioeconomic status compared to the schools in middle and upper socioeconomic statuses in primary school and secondary school parents’ opinions regarding the improvement activities related to the school-family cooperation, it is significant to increase the number of school-family cooperation activities for the parents in schools in the middle and upper socioeconomic environment statuses. Activities in which parents can come together among themselves can also be organized for the participation of working families. Thus, parents can socialize with each other.

Since school administration has deficiencies in informing families in terms of school improvement, school principals should be transparent about school administration and functioning and inform parents about these issues constantly. School principals and teachers should frequently inform parents about everything. Especially with the development of technology, parents can be informed through WhatsApp groups, photographs of the events conducted and students’ status can be shared with the parents. Besides, presentations on the importance of school-family cooperation can be prepared for parents, all events that will be conducted regarding school-family cooperation can be shared with the parents in the beginning of the year. Since the code of “organizing social activities” became prominent in primary school and secondary school parents’ suggestions about the improvement of school-family cooperation in all three socioeconomic environment statuses, social activities in which parents can participate may be organized in schools.

To increase school-parent cooperation, the MoNE or Directorate of National Education (DoNE) can prepare brochures about school-family cooperation before the term begins and distribute these brochures to every parent. Besides, the MoNE or DoNE may prepare advisory brochures about the activities that can be carried out for school-family cooperation for the school principals and teachers.

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