



Determination of Elementary Teachers' Opinions on Child Abuse and Neglect Training Programs Developed According to the Quantum Learning Model*

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ABSTRACT

This study was conducted to determine the opinions of elementary teachers about the child abuse and neglect education program developed according to the quantum learning model. This study was carried out with the participation of 20 elementary teachers working in the Yozgat province of Turkey. Quantitative and qualitative research methods were used together. Within the scope of the quantitative research, the "In-Service Training Programs Evaluation Scale" developed by Tekin and Yaman in 2008 was used. This scale had two factors and 28 items. The Cronbach's alpha coefficient of the scale in the original study was 0.95. Within the scope of the qualitative research, open-ended structured questions were asked to determine the opinions of elementary teachers on child abuse and neglect and the quantum learning model. Descriptive statistics and descriptive analysis were used in the analysis of the data. As a result of the analysis, it was determined that the opinions of teachers on the in-service training program were positive; they considered the quantum learning model as a physics-related model that developed the student in all aspects; they did not plan to implement the quantum learning model in the classroom; and they found it positive that the quantum learning model and child abuse and neglect were handled together. Teachers also reported that parents should participate in the training program on child abuse and neglect. The teachers acquired the learning outcome "Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect" at the end of the training program. As a result of the study, recommendations were made regarding the nature of the courses to be organized for teachers, the arrangements that can be made in schools for the implementation of the quantum learning model, and the need to organize educational programs for parents.

Keywords:

Child abuse and neglect, quantum learning, elementary school teachers

1. Introduction

In today's world, it is seen that it is not enough for teachers to continue their professional lives with the cognitive, affective, and psycho-motor learning outcomes they have obtained at the higher education level. The increase in the amount of knowledge requires teachers, who should be lifelong learners, to improve themselves and update their knowledge and skills. This will enable teachers to acquire new knowledge and skills, get to know their students better, communicate more effectively, use new methods and techniques in the teaching process, and, thus, provide more qualified education services. All kinds of training, cognitive-affective, and psycho-motor changes that teachers are exposed to to improve themselves from pre-vocational education until retirement are called professional development (Fullan & Steigelbauer, 1991). Professional

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development is defined as the development of professional knowledge and skills depending on the increase in the amount of knowledge (Hoque et al., 2011) and all activities that develop an individual's skills, knowledge, expertise, and all other characteristics as a teacher (OECD, 2009).

The first adult person that the child knows after his/her family at the preschool level, the person who knows the child closely for four years, cooperates with his/her family, shapes and directs him/her at the primary school level, the person who is regarded as a role model in the identity development of the child at the secondary school level, and the person who gives the student basic knowledge and skills on the way to becoming an adult at the high school level is the teacher. Especially at the preschool and primary school levels, the person who notices the changes in the behaviors and attitudes of the students and determines the problems should be a teacher. Professional development of teachers is important in this process (Coenders et al. (2010); Hilton et al. (2015); Postholm (2012); Runhaar (2008)).

In a study conducted by the OECD (2009), professional development training attended by teachers was listed as courses, workshops, training conferences, seminars, observation visits, mentoring, and reading the literature (journals, articles, theses, etc.) related to professional development. In Turkey, training is organized by the Ministry of National Education and various individuals and organizations to ensure the individual and professional development of teachers. Considering the courses organized for teachers by the Ministry of National Education and individuals and organizations, it is seen that the number of courses related to child abuse and neglect is very few (MEB, 2022). Only one of the 1225 courses included under the title of courses planned by the Ministry of National Education, Turkey, for 2022 is about child abuse and neglect.

Abuse is defined as the treatments by parents, caregivers, and strangers that harm the child and prevent the child's development (Tıraşçı & Gören, 2007), while neglect is defined as the failure to meet the child's basic needs, such as physical, emotional, social, educational, and security needs (Proctor & Dubowitz, 2014). The World Health Organization defines child neglect as the failure to meet the basic physiological and psychosocial needs of children. Child abuse is classified as physical abuse, emotional abuse, sexual abuse, economic abuse, and neglect (Güdücü, 2017, p. 35). Child neglect and abuse harm the psycho-social, physical, and educational development of children. The duration and type of neglect and abuse, the age of the child, and the identity of the perpetrator determine the severity of the trauma experienced by children (Fassler et al., 2005; Kalaycı-Bekler, 2019). Neglect and abuse lead to many negative consequences, such as developmental delays in physical, cognitive, language, motor, and social skills in children, uneasiness, irritability, difficulty in regulating emotions, enuresis, thumb sucking, separation anxiety, sleep disorders, eating and nutrition disorders, low academic achievement, learning difficulties, absence from school, adjustment problems, suicide attempts, and behavioral problems (Green, 1993; Helvacı-Çelik & Hoccoğlu, 2018; Legano et al., 2009; White & Widom, 2003). Due to all these negative consequences for children, neglect and abuse are both individual and social problems. It is indispensable that teachers, who play an important role in the development of children and have been with them for years, be informed in this regard.

Baginsky (2003, 2007) stated that children and young people spend one-third of their time at the school and that the contributions of teachers and other employees in detecting and preventing abuse and neglect are invaluable. School provides important opportunities for children to identify and prevent risks. As teachers spend an important time of the day with children, they can get to know children from different perspectives, notice the problems they experience, and monitor positive or negative behavioral changes. Therefore, teachers have to be at the forefront of identifying the maltreatment of children. It is important for teachers to have knowledge about neglect and abuse, to have skills in recognizing and approaching the child (Page & Page, 2011), to prevent child neglect and abuse, and to have knowledge about the reporting process of such cases to the administrative and judicial authorities.

Webb and Vulliamy (2001) report that teachers have duties such as helping families solve their problems, helping students with emotional and behavioral problems, protecting the child, and cooperating with other institutions and organizations in these efforts. The neglect and abuse that the child is exposed to have a psychosocial dimension as well as a legal dimension. Article 279 of the Turkish Penal Code is as follows: "*A public official who learns in connection with his duty that a crime requiring investigation and prosecution has been committed on behalf of the public and neglects to notify the authorities or delays in this regard is sentenced to imprisonment from six months to two years.*" In this regard, teachers are required to report the incident of neglect

or abuse to the law enforcement officers, the public prosecution office, the provincial bar association, and the Ministry of Family and Social Services, Turkey. In addition to this, according to Article 19 of the Convention on the Rights of the Child, states are obliged to protect children from all kinds of neglect and abuse and to provide the necessary medical and psychosocial support to the child exposed to neglect and abuse. According to Article 42 of the Convention, states have an obligation to ensure that children learn about their rights. In Turkey, teachers and schools where 18,241,881 (MEB, 2022) students are educated have a great responsibility in efforts related to teaching children's rights and protecting them from all kinds of neglect and abuse.

Perry (2001) reported that effective learning would not take place unless children and young people felt safe and their basic needs were met. Mathews (2011), McKee and Dillenburger (2010), Walsh and Farrell (2007), Veltmon and Browne (2003), and Taylor and Hodgkinson (2001) conducted studies and reported that it was necessary for teachers and prospective teachers to receive training on child abuse and neglect. In a study conducted by Yılmaz Irmak and Aksel (2015), it was revealed that teachers received insufficient training on abuse during their undergraduate and in-service training; they had accurate information about child sexual abuse, but they did not know what to do to report this situation to the official institutions. In a study conducted by Eken (2021), it was determined that elementary school teachers approached sexual and physical abuse types with higher sensitivity and interest than emotional abuse and neglect. It was considered that this sensitivity and interest emerged as a result of teachers' lack of knowledge and awareness about the types of abuse. In a study conducted by Sağır in 2013 with preschool and elementary school teachers, 89.7% of the teachers reported that they did not receive any training on child abuse and neglect, 75.8% of the teachers reported that they were never informed about the child protection law, and 70.8% of the teachers reported that they needed to be informed about these issues. In a study conducted by Kürklü (2011) with primary school teachers, it was revealed that 87.1% of the teachers did not receive any training on child abuse and neglect during their undergraduate education and professional lives; 87.1% of the teachers were never informed about the child protection law; and 84.2% of the teachers who did not receive any training on the subject needed to be informed about these issues. In a study conducted by Karakurt, Durmaz, and Kanbur (2021), it was recommended that in-service training be organized for teachers on child abuse and neglect and that this training be periodically processed in training programs. Research findings demonstrate that teachers need training on child abuse and neglect. In this regard, it was considered that it would be beneficial to organize a training program for elementary school teachers to identify child abuse and neglect. Elementary school teachers can spend time together with their students for four years, closely monitor the growth and development periods of children, and be in close contact with their families. Therefore, they can more easily identify child abuse and neglect and take the necessary precautions.

In a study they conducted, Walsh and Forrell (2007) revealed that teachers used the knowledge they had on child development by adapting them to the subject of child abuse and neglect, and they created solutions in their own way. A training program for teachers will ensure that teachers are equipped with the right knowledge and skills. In addition to this, teachers may resort to emotional violence against students, knowingly or unknowingly, during the training process, and they may exhibit attitudes and behaviors that will negatively affect the development of children. In this regard, increasing the knowledge and awareness levels of teachers about child abuse and neglect is also important.

Child neglect and abuse is a child-dimensional social problem as well as a psychosocial, educational, economic, cultural, and legal dimension. A training program to be prepared for teachers requires the implementation of the program with a teaching method that deals with all aspects of the subject, facilitates the investigation from different perspectives, does not only convey academic information, raises awareness about the subject, and provides practical skills. In addition to these qualities, it will be facilitated to use a method that will enable us to talk about a compelling subject such as child abuse and neglect, which activates emotions and anger even while listening or thinking, in a comfortable and calm environment. In this regard, it is considered that the most appropriate method to use is quantum learning.

Unlike the traditional paradigm, which aims to preserve the social and cultural heritage through quantum learning education and to socialize individuals by transferring it to future generations, postgraduate education aims to enable students to build their own truths by benefiting from different sources, not from a single source, and to become active individuals of social transformation (Eryaman, 2021, p. x). It is the product of the positivistic paradigm. The post-positivist paradigm was born as a reaction to positivism, which advocated that

scientific research be conducted on observable and measurable facts. In other words, post-positivism argues that there is a margin of error in all measurements, that all information can change, that all measurements can be wrong, that there is no single truth, that there is no certainty in science, that the perspective of researchers will be reflected in science, and that people should form their own perspectives based on the way they perceive the world. This flexible structure has changed the way we understand and interpret the universe and led to the emergence of concepts such as quantum physics and quantum learning.

In quantum physics, cause-and-effect relationships of events are not explained with the concepts of effect and reaction, but events are explained by establishing multiple perspectives and multiple cause-and-effect relationships. This situation is like the quantum learning model that emerged with the implementation of the basic principles of quantum learning physics in the training process. Erkan (2012) describes this process as “the quantum paradigm brought a different approach to the understanding of the universe. The quantum world view introduces uncertainty and possibility instead of the principles of certainty and absoluteness brought by the mechanical paradigm. Instead of one-way and absolute causality, the system consisting of interactive interaction replaced the whole and the structure created by the interaction system instead of the objective single reality. Thus, the perception and explanation of nature and society in the quantum paradigm gained a completely different content, functioning, and explanation compared to the mechanical paradigm. The reflection of this understanding on social sciences has highlighted the task of the researcher to find the connections of the system, structuring, and process functioning from the past to the present and from the present to the future, and to discover the behavioral patterns created by these connections instead of discovering individual and instantaneous cause-and-effect connections. In other words, with the effect of quantum physics, more flexible content should be taught in educational institutions, the student's past experiences and dreams for the future should be taken into account during the teaching process, and student-oriented teaching and course programs should be prepared. Quantum learning is a teaching and learning method that makes learners active in the learning process and realizes learning in a fun, calm, and relaxed environment. In quantum learning, the content does not support students to reach a single and existing truth; it is organized in a structure that allows students to find flexible and multiple truths, suggests that the content may change according to the situation and context, appeals to different types of intelligence, enables learners to think flexibly, and enables students to relate to life (Peker Ünal, 2020, p. 222). In quantum learning, it is necessary to consider events from multiple perspectives. An educational approach based on quantum learning provides students with opportunities to develop as many different perspectives as possible, consider events from different perspectives, and stay away from prejudices (Etyemez Demirboğa, 2014). The quantum learning cycle consists of six stages. These stages enable the application of the principles of quantum learning. The steps of capturing, associating with experience, labeling, showing, compiling, and celebrating ensure that learners are active, learning becomes fun, and learning is interesting in a relaxed environment. In capturing these stages, it is aimed at capturing the attention of the students; an intriguing question is asked, and the aim is to make the students feel the need to learn. In associating it with experience, it is aimed at encouraging students to think about what is on their minds about this subject they are curious about and to establish relationships. In labeling, students conduct research on the subject they are curious about and express their findings with pictures, text, and figures. In the demonstration phase, students show how to adapt their knowledge of the subject to situations in their daily lives, and in the compilation phase, repetitions are made to transfer this information to long-term memory. The celebration phase is the stage where the success of the student is celebrated and the success achieved by diligent work is appreciated.

It is considered that the use of the quantum learning model will be effective in the organization of the training program, as quantum learning reveals multiple perspectives and necessitates having multiple perspectives on neglect and abuse events. In a study conducted by Timpe (2012) to inform teachers and novice teachers about child abuse and neglect, it was revealed that it was more effective for the participants to learn by exchanging their opinions, sharing their learning experiences, and taking an active role in the learning process. In a study conducted by Saltık, Çalışır Zenci, & Pilanci (2020), it was reported that they preferred the quantum learning cycle; (the student needs to learn, is curious, self-regulates to learn; the student associates the situation he is curious about and wants to learn with the existing knowledge and skills in his mind; makes observations and/or research about the situation he associates in his mind, makes new inferences, shares this information; makes inferences) Giving them opportunities to adapt the information to their daily lives, for example, preparing a show, shooting a video, composing music, etc.; transferring the acquired information to the

student's long-term memory by repetition, either verbatim or in shortened form; celebrating; appreciating and praising the student's efforts, care, and achievements. celebration) because it facilitated the meaningfulness of the content to be learned, was easily implemented, supported long-lasting learning, encouraged learner success, and facilitated the learning process.

Considering the practices of quantum learning, it was determined that there were studies on the academic achievement and self-regulation skills of primary school 4th-grade students (Çelik, 2018), there were studies on the speaking skills, speaking anxiety, and self-efficacy of middle school students (Altın & Saracaloğlu, 2019), there were studies on metacognitive learning strategies and problem-solving skills of students in middle school 7th-grade mathematics lessons (Bakır & Koç Akran, 2019), and there were studies on the implementation of the quantum learning approach in middle school Turkish lessons (Çelik, 2021). However, there were no studies implementing the subject of child abuse and neglect and planning a course aimed at the professional development of teachers along with quantum learning. Therefore, this study is considered to be original. It is anticipated that the data obtained from the implementation will provide data on the implementation of the quantum learning model for the professional development of teachers and child abuse and neglect, introduce the quantum learning model to teachers, and shed light on future studies.

This study aims at determining the opinions of elementary school teachers about the child abuse and neglect training program prepared according to the quantum learning model. In this regard, the following research questions were adopted:

- What are the opinions of the teachers participating in the training program about child abuse and neglect developed according to the quantum learning model?
- What are the opinions of the teachers participating in the training program about the quantum learning model?
- What are the learning outcomes of the teachers participating in the training program on child abuse and neglect?

2. Methodology

2.1. Research Model

This research was designed in accordance with the convergent design of the mixed method, in which quantitative and qualitative data collection tools are collected simultaneously. In the convergent design, qualitative and quantitative data are collected simultaneously, the information is analyzed separately, and the findings are interpreted together. In this study, a scale was applied to teachers within the scope of quantitative research, and their opinions about the curriculum were tried to be determined within the scope of qualitative research.

11-03-2021 dated and 95799348-050.01.04-E.27687numbered ethics committee approval was obtained with the official letter of Yozgat Bozok University Project Coordination, Application, and Research Center Directorate, Turkey.

2.2. Research Sample

The study group for the research was conducted in the 2021–2022 academic year by 75th Year Dr. School, which is the primary school with the highest number of classroom teachers in the central district of Yozgat. It constitutes the Müzeyyen Çok Değerli Primary School. 20 classroom teachers working at the mentioned school were selected as a sample because they varied in terms of age, seniority, and gender. Since the school is at an easily accessible location in the center of Yozgat, easily accessible sampling was preferred in determining the study group.

The findings regarding the demographic characteristics of the study group were presented in Table 1.

Table 1. Demographic characteristics of the study

Sample group characteristics		f	%
Gender	Female	12	60
	Male	8	40
	1-5	4	20
Seniority (years)	6-10	0	0
	11-15	4	20
	16-20	3	15

	21-25	4	20
	25-+	5	25
Class	1	5	20
	2	5	20
	3	5	20
	4	5	20

2.3. Data Collection Tools and Procedure

The “In-Service Training Programs Evaluation Scale” developed by Tekin and Yaman (2008) was used in the study. The scale consisted of 28 items, 21 of which were positive and 7 of which were negative. This scale consisted of two dimensions: teaching process and learning outcomes (items 1-2-3-4-5-6-7-8-9-10-12-13-14-15-16-17-18-19-20-22-27) and organization design (items 23-24-25-26-28-30-31). Negative items were reversed when scoring. The score equivalents of the answer options for the items in the scale were as follows: 5=I totally agree, 4=I agree, 3= I'm not sure, 2=I disagree, and 1=I totally disagree. The range width of the original scale was calculated with the array width/number of groups to be created formula. The arithmetic mean ranges were calculated as follows: 1.00-1.80=I totally disagree, 1.81-2.60=I disagree, 2.61-3.40=I'm not sure, 3.41-4.20=I agree, 4.21-5.00=I totally agree. As the scores on the scale approached 5.00, it was accepted that the teachers perceived the in-service training programs positively. As the scores approached 1.00, it was accepted that the level of positive perception of the program was lower. The Cronbach Alpha coefficient of the original form of the scale was found to be .95 (Tekin & Yaman, 2008).

In addition to the in-service training program evaluation scale, the “Personal Information Form” prepared by the researchers to include the gender, seniority, and class information of the teachers was used as another data collection tool. An interview form consisting of six questions was prepared to determine the opinions of teachers on the quantum learning model. With the standardized open-ended interview, a series of questions, carefully written and placed in a certain order, were asked to each individual in the same style and order (Yıldırım & Şimşek, 2005, 123). While preparing the interview form, research on quantum learning was examined, and open-ended questions that could be asked were determined. The prepared questions were edited and finalized by taking an expert's opinion. The standardized open-ended interview form consisted of the following questions: “What did you think when you first heard the concept of the quantum learning model?”; “What do you think are the strengths of the quantum learning model?”; “What do you think are the weaknesses of the quantum learning model?”; “Do you plan to implement the quantum learning model in your lessons?”; “What are your opinions on the use of the quantum learning model in a program to identify child abuse and neglect?”; “If a new training program was organized on this subject, what would you like to change, add, or remove?”; “How would you list your learning outcomes at the end of the training program?”. These questions were asked of the teachers through individual interviews after the completion of the training program, and the answers provided were recorded by the researcher.

The teachers’ room, school library, and meeting room were examined before the training program was implemented. It was determined that the most suitable place for the implementation of the quantum learning model was the teachers’ room. The reasons for choosing the teachers’ room for the training program were as follows: The teachers’ room had a smart board, mobile tables, chairs, and seating groups for group work. The teachers’ room had kitchen equipment (tea maker, water dispenser, plates, glasses, etc.) to meet the basic needs of teachers having a break. Finally, the huge corridor where the heat, light, and ventilation conditions were at a level to facilitate learning and where group activities would be held was close to the teachers’ room.

The training program was implemented between January 6 and 18, 2022. Due to the ongoing support courses at the school, the teachers reported that they could attend the training program on Tuesdays and Thursdays. Therefore, the program was implemented in four sessions on January 6, 11, 13, and 18, 2022. Each session lasted an average of 2–2.5 hours.

The practices in the training program created by applying the stages of the quantum learning model to child abuse and neglect are presented in the table below.

Table 2. Practices carried out in the course program organized according to the quantum learning model

Quantum learning stages	Objective	Applied learning experiences	Applied evaluation tool
Apprehending- Associating 1/6/2022	Drawing attention to the subject of neglect and abuse, arousing curiosity, and finding out how to use the subject to be learned in the classroom or in our daily lives.	Acquaintance activity Filling out the 3WH-Questions table Writing journal (what I feel, what I expect, why am I here—self-evaluation)	“What did you think when you first heard the name of the quantum learning model?” open-ended question.
Labeling 1/11/2022	What are neglect and abuse (NA)? How does a student who is exposed to NA behave? How does he/she feel? How can we understand his/her feelings? What should the teacher do? How should the teacher react? How should the teacher communicate with the family? Where should the teacher apply?	Warm-up activity Quantum notetaking Multiple-intelligence lecturing Presentation on neglect and abuse Writing journal (what I feel, what I expect, why am I here—self-evaluation) Providing case examples to small groups, analyzing these situations through discussion, and producing solutions	
Demonstrating 1/13/2022	How will the learned information be used in our daily lives and in the classroom? How should we approach neglected and abused students?	Writing journal (what I feel, what I expect, why am I here—self-evaluation) Making posters, banners, and pictures, and writing poems and slogans with the learning station technique	
Reviewing- Celebrating 1/18/2022	Repeating, consolidating, and internalizing the knowledge we have learned and implemented	Completing the 3WH-question table. Writing journal (what I feel, what I expect, why am I here—self-evaluation)	In-service training program evaluation scale Determining the answers to open-ended questions

As seen in Table 2, the following question was asked in the first session of the training program: “What did you think when you first heard the name of the quantum learning model?”. Then, general information about the content and scope of the training program was provided, the quantum learning model was briefly introduced to the teachers, and a meeting was held with the teachers. In the second session, the training started with the warm-up activity, and general information was provided about the concepts of neglect-abuse and neglect-abuse types. In the third session, how neglect and abuse affect students, the behaviors of children exposed to neglect and abuse, the environmental characteristics of parents causing neglect and abuse, and case examples were discussed. In the fourth and last session, case examples on what to do when we notice children who have been neglected and abused, how to approach the child, and how to communicate with them were discussed, and the information obtained was summarized. In the last session, the “In-Service Training Programs Evaluation Scale” (Tekin & Yaman, 2008) and the structured interview questions prepared by the researchers were applied to the teachers to find answers to the research questions. The scale and interview questions were applied in the teachers’ room used for the training program.

2.4. Data Analysis

The data obtained through the “In-Service Training Programs Evaluation Scale” (Tekin & Yaman, 2008) were transferred to the SPSS program, descriptive statistics were applied, and the average of the responses provided to each item was calculated. After calculating the average of each item, the average for the overall scale was determined.

The answers provided by the teachers to the open-ended questions were analyzed by conducting a descriptive analysis. The descriptive analysis data were obtained through the steps of creating a framework for descriptive analysis, processing the data according to the thematic framework, and defining and interpreting the findings (Yıldırım & Şimşek, 2011). In the descriptive analysis, the opinions of the interviewed teachers were presented through direct quotations.

2.5. Ethical

11-03-2021 dated and 95799348-050.01.04-E.27687 numbered ethics committee approval was obtained with the official letter of Yozgat Bozok University Project Coordination, Application, and Research Center Directorate, Turkey.

In this research process, all the rules in the Higher Education Institutions Scientific Research and Publication Ethics Directive were followed, and none of the “Actions Contrary to Scientific Research and Publication Ethics” included in the second part of the directive were carried out.

3. Findings

The findings of the questionnaire applied to answer the question “What are the opinions of the teachers participating in the training program about the child abuse and neglect developed according to the quantum learning model?” are presented in Table 3.

Table 3. Opinions of teachers about the in-service training program

Evaluation Criteria	I totally agree	I agree	I'm not sure	I don't agree	I totally disagree	Average
	f /%	f/%	f%	f/%	f/%	
1. The program brought new information about the subjects in its content.	11/55	9/45	-	-	-	4.45
2. The program brought new knowledge about the subjects in its content.	6/30	7/35	2/10	5/25	-	3.70
3. The program brought new insights and perspectives about the subjects in its content.	8/40	12/60	-	-	-	4.40
4. The program is qualified to develop professional knowledge, skills, and characteristics.	7/35	13/65	-	-	-	4.35
5. The program provided the information and skills needed to apply new knowledge to the lessons.	7/35	7/35	4/20	1/5	-	4.05
6. New information and skills in the content of the program can be applied in the lessons.	5/25	9/45	6/30	-	-	3.95
7. The duration of the program is sufficient to acquire new information about its content.	5/25	1/5	2/10	12/60	-	2.95
8. The duration of the program is sufficient to acquire the skills to perform the new experiments (if any) and activities in its content.	4/20	1/5	5/25	10/50	-	2.95
9. The duration of the program is sufficient to acquire new perspectives and insights within the content.	4/20	1/5	5/25	10/50	-	2.95
10. The duration of the program was used effectively.	9/45	5/25	2/10	2/10	2/10	3.85
12. The instructor running the program had sufficient information and skills about the subjects in the content.	14/70	6/30	-	-	-	4.70
13. The instructor running the program explained the subjects adequately.	15/75	5/25	-	-	-	4.75
14. The instructor running the program provided enough examples about the subjects.	14/70	6//30	-	-	-	4.70

15. The instructor running the program conducted the experiments (if any) and sample activities.	15/75	5/25	-	-	-	4.75
16. The subjects in the program content were presented effectively.	14/70	6/30	-	-	-	4.70
17. Activities/experiments (if any) required to be done in the program were performed.	15/75	5/25	-	-	-	4.75
18. Sufficient instructor-participant interaction was provided in the program.	15/75	5/25	-	-	-	4.75
19. Sufficient participant-participant interaction was provided in the program	15/75	5/25	-	-	-	4.75
20. An effective communication environment was provided in the program.	16/80	4/20	-	-	-	4.80
22. The participants were provided with the right to speak in the program.	16/80	4/20	-	-	-	4.80
23. The organization of the program is sufficient.	14/70	3/15	1/5	2/10	-	4.45
24. The program disrupted my work at the school where I worked.	1/5	-	2/10	7/35	10/50	1.75
25. The building where the program was conducted was not suitable for training.	7/35	9/45	2/10	1/5	1/5	2.00
26. The program negatively affected the work (training activities) at school.	9/45	6/30	4/20		1/5	1.90
27. It was difficult to learn new information and skills because the working hours in which the program was organized were not suitable.	5/25	7/35	3/15	3/15	2/10	2.50
28. If the program were held on a different date, new information and skills would be learned better.	1/5	9/45	6/30	2/10	2/10	2.75
30. There were no new information or skills in the program.	11/55	9/45	-	-	-	1.45
31. The practices in the program did not help the development of professional knowledge and skills.	15/75	3/15	2/10	-	-	1.35
AVERAGE 3.68						

Considering the average of the survey items, the average of 28 items was 3.68. This average demonstrated that the opinions of the teachers participating in the program on in-service training were in the range of "agree."

As seen in Table 3, it was determined that the highest score in the opinions of teachers about the in-service training program was provided to the items "An effective communication environment was provided in the program" and "The participants were provided the right to speak enough in the program" with an average of 4.80. These items were followed by the items "The instructor running the program explained the subjects adequately", "The instructor running the program conducted the experiments (if any) and sample activities", "Activities/experiments (if any) required to be done in the program were performed", "Sufficient instructor-participant interaction was provided in the program", and "Sufficient participant-participant interaction was provided in the program" with an average of 4.75.

Considering the opinions of teachers about the in-service training program, it was determined that the item with the lowest average (with an average of 1.35) was "The practices in the program did not help the development of professional knowledge and skills." After this item, the lowest average is followed by the items "There were no new information and skills in the program" and "The program disrupted my work at the school where I worked" with an average of 1.75.

Apart from these items, the teachers participating in this study responded in the range of strongly agreeing with the items "The program brought new information about the subjects in its content", "The program brought new insights and perspectives about the subjects in its content", "The program is qualified to develop professional knowledge, skills, and characteristics", "The instructor running the program had sufficient information and skills about the subjects in the content", "The instructor running the program provided enough examples about the subjects", "The subjects in the program content were presented effectively", and "The organization of the program is sufficient".

In the second question of this study, the answer to the question "What are the opinions of the teachers participating in the training program about the quantum learning model?" was sought. To answer this question, the structured interview form consisted of the following questions: "What did you think when you first heard the concept of the quantum learning model?"; "What do you think are the strengths of the quantum learning model?"; "What do you think are the weaknesses of the quantum learning model?"; "Do you plan to implement the quantum learning model in your lessons?"; "What are your opinions on the use of the quantum

learning model in a program to identify child abuse and neglect?"; "If a new training program were organized on this subject, what would you like to change, add, or remove?"

Teacher opinions on the question "What did you think when you first heard the name of the quantum learning model?" were gathered under two themes: "physics" and "learning." The themes that teachers thought of when they first heard the name of the quantum learning model are presented in Table 4, along with their frequencies.

Table 4. *What teachers thought of when they first heard the name of the quantum model*

	Theme	Frequency
What teachers thought of when they first heard the name of the quantum model	Learning	6
	Physics	14

Direct quotations containing the opinions of teachers who responded under the theme of "learning" were presented below:

Teacher with the K code: "a learning model going from part to whole and demonstrating how a vibration is effective in the world." Teacher with the H code: "I thought it was related to brain-based learning." Teacher with the G code: "I thought it was a very difficult learning model."

Direct quotations containing the opinions of teachers who responded under the theme of "physics" were presented below:

Teacher with the A code: "I thought of whole-quantum physics made up of tiny bits and pieces." Teacher with the B code: "I thought it might have something to do with energy and physics." Teacher with the C code: "I thought everything was affecting each other like the butterfly effect; I know it's about physics." Teacher with the E code: "Based on a movie I watched, I thought it was about physics and the universe."

When teachers first hear the name of the quantum model, the first concept they think of is "physics."

Teacher opinions on the question "What do you think are the strengths of the quantum learning model?" were gathered under three themes: "holistic," "positive," and "entertaining." Teacher opinions on the strengths of the quantum learning model were presented in Table 5, along with their frequencies.

Table 5. *Teacher opinions on the strengths of the quantum learning model*

	Theme	Frequency
Strengths of the quantum learning model	Holistic	11
	Positive	8
	Entertaining	1

Direct quotations containing the opinions of teachers who responded under the theme of "holistic" were presented below:

Teacher with the D code: "considering the student's behavior and even everything about the student as a whole." Teacher with the C code: "enabling to see and understand student behaviors as a whole." Teacher with the A code: "it seems to be an effective model, developing the individual as a whole and including the individuals actively in training." Teacher with the B code: "a model that develops the individual as a whole in learning."

Direct quotations containing the opinions of teachers who responded under the theme of "positive" were presented below:

Teacher with the F code: "It was a model that I felt completely with its content and activities; it was not a model we put away after implementing like other models; it left a positive mark on us." Teacher with the K code: "It is very attractive to offer a lot of stimuli and attract the individual to the learning process." Teacher with the E code: "quite positive because it involves students in the active learning process."

A direct quotation containing the opinion of the teacher who responded under the theme of "entertaining" was presented below:

Teacher with the G code: "It is an entertaining and memorable model, as it starts from the small and goes towards the whole as it includes various applications."

Teachers see the holistic perspective and positive aspects of the quantum learning model as strengths.

Teacher opinions on the question “What do you think are the weaknesses of the quantum learning model?” were gathered under four themes: “teacher-related weaknesses,” “student-related weaknesses,” “time-related weaknesses,” and “infrastructure-related weaknesses.” Teacher opinions on the weaknesses of the quantum learning model were presented in Table 6 along with their frequencies.

Table 6. *Teacher opinions on the weaknesses of the quantum learning model*

	Theme	Frequency
Weaknesses of the quantum learning model	Teacher-related	5
	Student-related	3
	Time-related	2
	Infrastructure-related	2

Direct quotations containing the opinions of teachers who responded under the theme of “teacher-related weaknesses” were presented below:

Teacher with the C code: “The teacher’s inexperience in implementing the model negatively affects the implementation of the model in every subject; a trial study should be conducted before implementing.” Teacher with the B code: “As teachers, we just learned this model; the content was very rich; I could not clarify which application to use and how to use it; it will be more effective if we gain experience and implement it again.” Teacher with the H code: “individual differences need to be understood very well, handled from multiple perspectives, and the model should be applied accordingly. If we can’t do this, we can perform wrong practices in quantum learning; I may have difficulty applying it”. Teacher with the D code: “A holistic view of the student may prevent the revealing of individual differences and making appropriate arrangements in teaching, thus preventing the implementation of the model.”

Direct quotations containing the opinions of teachers who responded under the theme of “student-related weaknesses” were presented below:

Teacher with the F code: "The model seems a little confusing; students may be intimidated." Teacher with the A code: “It can cause passive students to turn in on themselves.”

Direct quotations containing the opinions of teachers who responded under the theme of “time-related weaknesses” were presented below:

Teacher with the K code: “There are lots of activities and works to do; I think it will take a lot of time; it may be difficult for me to implement because I have just learned it.”

Direct quotations containing the opinions of teachers who responded under the theme of “infrastructure-related weaknesses” were presented below:

Teacher with the G code: “There will be a lot of work to be done in practice, but the physical environment of the classroom, the arrangement of the desks, and the tools and equipment to be used are not suitable for all these. I think I will have difficulties in practice as our infrastructure is insufficient.”

Teachers see the teacher-centered nature of the quantum learning model as a weakness of the model.

Teacher opinions on the question “Do you plan to implement the quantum learning model in your lessons?” were gathered under three themes: “I’m planning,” “I’m not planning,” and “I’m planning if some adjustments are made.” Teacher opinions on the implementation of the quantum learning model in their lessons were presented in Table 7 along with their frequencies.

Table 7. *Teacher opinions on the implementation of the quantum learning model in their lessons*

	Theme	Frequency
Planning the implementation of the quantum learning model in lessons	I’m planning to implement it.	6
	I’m not planning to implement it.	10
	I’m planning to make some adjustments.	4

Direct quotations containing the opinions of teachers who responded under the theme "I'm planning" were presented below:

Teacher with the E code: "The academic skills and life skills contained in the model are significant; it is necessary to start somewhere and teach them to children; I'm planning to implement it." Teacher with the H code: "We can apply this model the same way we apply other learning models, methods, and techniques."

Direct quotations containing the opinions of teachers who responded under the theme "I'm not planning" were presented below:

Teacher with the K code: "We don't have enough time in the classroom, so I'm not planning to implement it." Teacher with the D code: "I don't think it can be implemented at every grade level." Teacher with the G code: "The physical conditions of the schools and classrooms are not sufficient; I do not feel adequately equipped; I'm not planning to implement it." Teacher with the J code: "I think that it will not be effective in schools because parents cause trouble; they see these practices as a waste of time and react." Teacher with the L code: "It is difficult to implement due to parent-student relations and teacher-student relations. The parents and the system only care about academic success and problem-solving, so it cannot be implemented. As the expectations of the parents of the students are different, we would get reactions."

Direct quotations containing the opinions of teachers who responded under the theme "I'm planning if some adjustments are made" were presented below:

Teacher with the B code: "We need to place the philosophy of the quantum learning model in a multi-faceted way. If that happens, we can implement it." Teacher with the K code: "It would be very effective if we knew the individual differences of the students and used the model by relating these differences, but we cannot spare time for this." Teacher with the G code: "It can be applied if there is enough material in the classrooms. It will be more efficient if additional training is organized for teachers on methods and techniques and teachers are supported on practices."

Teachers do not consider applying the quantum learning model in their classrooms.

Teacher opinions on the question "What are your opinions on the use of the quantum learning model in a training program organized to raise awareness about child abuse and neglect?" were gathered under the theme of "positive." The theme and frequencies of the teacher opinions on the use of the quantum learning model to raise awareness about child abuse and neglect are presented in Table 8.

Table 8. *Teacher opinions on the use of the quantum learning model to raise awareness about child abuse and neglect*

The use of the quantum learning model to raise awareness about child abuse and neglect	Theme	Frequency
	Positive	20

Direct quotations containing the opinions of teachers who responded under the theme "I'm positive about the use of the quantum learning model to raise awareness about child abuse and neglect" were presented below:

Teacher with the J code: "The model addressed more than one type of intelligence; not only the narrative method was used. It brought together effective methods, so I think it was successful. The learning station technique involved us and gave us an active role. In general, new information was provided, and the information did not hang in the air. This model provided us with a new perspective, with discussions and plenty of examples throughout the process. Discussions with our instructor were very helpful. It would have been more effective if it had been done with a more interdisciplinary perspective, with more information exchange, and, most importantly, over a longer period of time. I found the use of quantum learning in this regard effective."

Teacher with the F code: "Neglect and abuse awareness training with quantum learning has had different and positive effects on everyone; it has been a memorable practice. It was also supported to be remembered with case examples and case studies about neglected and abused children."

Teacher with the B code: "Quantum learning appeals to everyone's learning style and creates a fun and memorable environment. It provides intrinsic motivation to learn about what we are curious about. It supports creative thinking and problem-solving. It facilitates learning by appealing to emotions, and it has been very effective on conscientious issues such as child abuse and neglect."

Teacher with the D code: "Quantum learning increased the possibilities and made us think from a broad perspective. We considered the subject of neglect and abuse from a broad perspective. Subjects such as

negligence in institutions, abuse of the child by the family without realizing it, the feelings of the child, etc. were all considered and discussed.”

Teacher with the K code: “Quantum learning allowed me to look at the subject holistically, so we considered child abuse and neglect as a whole. When I examined the situations in the family environment and public institutions about abuse and neglect, I understood the issue more clearly and saw the big picture. This also allowed me to look for the solution holistically. I would like to study more cases over a longer period.”

All teachers find it positive that the quantum learning model is used to raise awareness about child abuse and neglect.

Teacher opinions on the question “If a new training program were organized on this subject, what would you like to change, add, or remove?” were gathered under three themes: “involving parents in the training process,” “looking after the child during the training,” and “developing the training content.” The theme and frequencies of the teacher opinions on the use of the quantum learning model to raise awareness about child abuse and neglect are presented in Table 9.

Table 9: *Opinions of teachers about a new training program to be organized*

	Theme	Frequency
Opinions of teachers about a new training program to be organized	Involving parents in the training process	15
	Looking after the children during the training process	1
	Developing the training content	15

Direct quotations containing the opinions of teachers who responded under the theme of “involving parents in the training process” were presented below:

Teacher with the İ code: “I think it would be beneficial for parents to participate in such training programs. It is not possible to talk about some situations with the parents; they do not want to listen to or understand us. Training should be organized for them as well.” Teacher with the J code: “Seminars should be organized for parents; we experience problems in communication.” Teacher with the G code: “The family provides education until the child starts school at the age of 7. I want families to participate in such training programs as well.” Teacher with the A code: “As a classroom teacher, we may confront the parents in some situations. The parent does not accept neglect and attempts to wear out the teacher. The current education system favors the parents rather than the teachers. In this process, the main determining factors are the parents. Their educational levels, their economic opportunities, their positions in society, their social status, and their upbringing conditions are the variables that determine the neglect. Therefore, first, the focus should be on parents.” Teacher with the H code: “This training should also be given to parents; the content for parents should be explained in a short, brief, and entertaining way. Interactive studies should be performed.”

Direct quotations containing the opinions of teachers who responded under the theme of “looking after the child during the training process” were presented below:

Teacher with the İ code: “For the training program to be more effective, I need to know that my children are safe and well. I am here now, and my children (students) are waiting for me in the classroom. I don’t feel peaceful.”

Direct quotations containing the opinions of teachers who responded under the theme of “developing the training content” were presented below:

Teacher with the F code: “We need a seminar on child psychology.” Teacher with the Ç code: “Training should be given on how to correct the behaviors of the student with problematic behaviors, and training should be provided on correct and effective communication techniques.” Teacher with the K code: “Children should also be trained on how to protect themselves.” Teacher with the N code: “Plenty of case studies should be provided; we should be told what to do in case studies.” Teacher with the I code: “Plenty of case studies should be provided, and visual materials should be used in the presentation of the content of the training.” Teacher with the D code: “The duration of the training should have been longer; this subject should have been covered from an interdisciplinary perspective through more trainers and more case studies.” Teacher with the A code: “I would like to receive training on this content for a longer period during the seminar period.”

Teachers' opinions about a new education program to be organized: The aim was to include parents in education and improve the content of education.

In the third question of this study, the answer to the question "What are the learning outcomes of the teachers participating in the training program on child abuse and neglect?" was sought. The answers to this question were presented in Table 10 with direct quotations and written as a learning outcome sentence.

Table 10. *The learning outcomes of teachers participating in the training program*

Teachers' statements	Learning outcomes
I understood the importance of early intervention in cases of neglect and abuse. I learned that if I witnessed a situation, I could call the Alo 183 line directly without following the bureaucratic procedures.	-Recognizes the importance of early intervention in child abuse and neglect. -Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.
I learned the definitions of neglect and abuse and how to distinguish between the two. I think that I will notice the negligence in education, life, and accommodation, as well as physical and mental abuse, more easily.	-Knows the definitions of neglect and abuse. -Aligns the differences between neglect and abuse. -Aligns the types of neglect and abuse.
I learned what abuse and neglect involve. My perspective on the things happening around me has changed. I realized that some of the things I knew were right were wrong. I learned who and how to contact when faced with these situations. When I was with the students, I started to monitor their behaviors.	-Knows the scope of neglect and abuse. -Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.
I learned the importance of communication to understand abuse, the effects of the feeling of helplessness on the child, the traumas experienced in cases of neglect and abuse, the wounds it inflicts, the deficiencies in social services, the lack of cooperation between institutions, and whom to contact in cases of neglect and abuse.	-Recognizes the importance of communication with the child in child abuse and neglect. -Aligns the effects of abuse and neglect on the child. -Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.
I know what to look for to identify neglected and abused children. I learned where to report these kids.	-Knows how to identify abused and neglected children. -Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.
Neglect: denial, disregard for the existence of the individual, Abuse: an individual obtaining a personal benefit from another individual.	-Knows the scope of neglect and abuse.
I learned what I need to do to recognize and help children who have been neglected and abused.	-Knows how to identify abused and neglected children. -Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect. -Knows how to identify abused and neglected children.
I learned the signs of neglect and abuse, what to do if I face such a situation, and situations that cause or may cause neglect and abuse.	-Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect. -Aligns the reasons for neglect and abuse.
The vast majority of physical contact with an individual's body without their consent is considered abuse. Apart from this, most of the verbal reactions that the person does not like or does not consent to are considered abuse.	-Knows the scope of abuse.
I learned about the effects of abuse, types of abuse, and Alo 183.	-Aligns the effects of abuse and neglect on the child. -Knows the types of abuse. -Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.
I learned what kind of legal procedures we should follow and what we should do in cases of neglect and abuse.	-Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.

I just realized that a student of mine was abused and judged for failing. I learned the types of neglect and abuse and their effects on the child.

-Knows the types of abuse and neglect.
-Aligns the effects of abuse and neglect on the child.

I know about emotional and physical abuse. I know the reasons for neglect and abuse, possible consequences, different cases, how to contact the child or adult, and where to apply legally.

-Knows the types of abuse.
-Aligns the reasons for neglect and abuse.
-Aligns the effects of abuse and neglect on the child.
-Knows how to communicate with the child and the parent in case of neglect and abuse.
-Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.
-Knows the types of abuse.

There is physical and emotional abuse. I learned what abuse and neglect are. I understood the behavior disorder observed in abused or neglected people. I learned what to do when faced with such a situation.

-Knows the scope of neglect and abuse concepts.
-Aligns the effects of abuse and neglect on the child.
-Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.

Negligence is not showing due care, and abuse is physical, emotional, and verbal exploitation. I realized I needed to look at the situation from multiple perspectives when interpreting the behaviors of students. I learned about the traumas that occur in individuals because of neglect and abuse. I learned what to do for these individuals.

-Knows the scope of neglect and abuse concepts.
-Aligns the effects of abuse and neglect on the child.
-Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.

The learning outcomes of the teachers were presented in Table 11 with frequencies.

Table 11. Teachers' learning outcomes and frequencies

Learning outcomes	Learning outcome frequency
Recognizes the importance of early intervention in child abuse and neglect.	1
Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect.	11
Knows the definitions of neglect and abuse.	1
Aligns the differences between neglect and abuse.	1
Aligns the types of neglect and abuse.	6
Knows the scope of neglect and abuse.	5
Recognizes the importance of communication with the child in child abuse and neglect.	1
Aligns the effects of abuse and neglect on the child.	6
Knows how to identify abused and neglected children.	3
Aligns the reasons for neglect and abuse.	2
Knows how to communicate with the child and the parent in cases of neglect and abuse.	1

As seen in Table 11, the learning outcome reported by the teachers with the highest frequency was "Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect." This learning outcome was followed by "Aligns the types of neglect and abuse" and "Aligns the effects of abuse and neglect on the child." These were followed by "knows the scope of neglect and abuse."

4. Conclusion and Discussion

This study aimed to determine the opinions of elementary school teachers about the child abuse and neglect training program prepared according to the quantum learning model. In this study, it was attempted to determine the opinions of teachers on the in-service training program, their opinions on quantum learning, and their learning outcomes about child abuse and neglect.

The average of the opinions of the teachers about the in-service training program was 3.68 out of 5. This average demonstrated that teachers were satisfied with the training program. In a study conducted by Sarıköse (2019), it was revealed that teachers had knowledge about child abuse, but attention should be drawn to this subject through the in-service training programs to be organized. The fact that teachers had positive opinions about the training program demonstrates that attention is drawn to the subject.

The teachers stated that an effective communication environment was provided in the in-service training program, the participants were provided the right to speak, the instructor of the program explained the subjects sufficiently, the activities in the program were carried out, the participant-participant-teacher interaction was ensured, they gained new information, insights, and perspectives in the program, the program was qualified to develop professional knowledge, skills, and characteristics, the instructor presenting the content had sufficient knowledge and skills about the subjects in the content, the instructor running the program provided enough examples about the subjects, the subjects in the program content were presented effectively, and the organization of the program was sufficient. These opinions demonstrated that teachers' opinions about the program were positive. These opinions contradicted the findings of other studies on the in-service training programs of teachers. For example, Kahyaoğlu and Karataş (2019) conducted a study and determined the opinions of teachers about professional development seminars. Teachers defined professional development seminars with negative expressions such as formality, waste of time and money, drudgery, an idle process, paperwork, and gossip. In the same study, the participants reported that the seminars were based on academic knowledge, rote learning, and formality practices on paper, were not practical, were not provided by experts and professionals of the subject, and the same subjects were included in the program, did not include interesting subjects, the educational environments were not suitable, the teachers were forced to attend, the seminar duration was long, the state paid additional lessons unnecessarily, and the studies were not supervised, and should not serve as a routine computer presentation reading activity and should be turned into training programs where more teachers are involved and participate through practice. In a study conducted by Genç (2015, p. 82), the participants reported that the program prepared was inefficient in terms of making up for their professional deficiencies, the professional development process was not well planned and caused a waste of time, and the studies were only a formality. It was considered that this difference in the findings of the studies was because the child abuse and neglect education based on the quantum learning model was provided to the teachers by expert academicians, ideas were exchanged with the teachers during the planning process, the opinions of the teachers were obtained at every stage, and the training process was planned in accordance with these opinions. In the study conducted by Kösterelioğlu (2014) to determine teacher suggestions for increasing teacher participation in in-service training activities, teachers reported that educators involved in in-service training activities should be experts in their fields and communicate effectively with the participants. In a study conducted by Turgut (2012) to determine the in-service training needs of primary school teachers, it was reported that the trainers who would take part in in-service training programs for teachers should be well-equipped, competent, and able to communicate effectively. In addition to this, it was concluded that the teachers preferred university instructors in in-service training programs. It was considered that the number of both teachers (20) participating in the training and academicians (2) administering the training was limited, that the quantum learning model was a flexible model that valued the individual and required multidimensional thinking, and that the academicians made efforts to act in accordance with this model, which positively affected the views on the training program.

In a study conducted by Günbayı and Taşdöğen (2012), it was revealed that teachers wanted to receive professional training from experts; the people who would provide the training should not read the materials on the screen; the training activities should be practical, the teachers should be active; and the trainers should have good and high-level communication skills. These expectations put forward by Günbayı and Taşdöğen (2012) were met in the child abuse and neglect training program organized according to the quantum learning model. The expectations of the teachers in this study and the study conducted by Günbayı and Taşdöğen (2012) were parallel.

Considering the opinions of the teachers on the in-service training program, it was determined that the practices in the program did not help the development of professional knowledge and skills; there were no new knowledge and skills in the program, and the program disrupted the work of the teachers at the school where they worked. The responses of teachers to these items in the range of "strongly disagree" indicated that the program increased teachers' professional knowledge and skills, new knowledge and skills were acquired in the program, and the program did not hinder their work at school.

In the second question of this study, the answer to the question "What are the opinions of the teachers participating in the training program about the quantum learning model?" was sought. The structured interview form consisted of the following questions: "What did you think when you first heard the concept of

the quantum learning model?"; "What do you think are the strengths of the quantum learning model?"; "What do you think are the weaknesses of the quantum learning model?"; "Do you plan to implement the quantum learning model in your lessons?"; "What are your opinions on the use of the quantum learning model in a program to identify child abuse and neglect?"; "If a new training program were organized on this subject, what would you like to change, add, or remove?". It was determined that teachers knew that quantum learning was a physics-based and learning-related model. In addition to this, the teachers aligned the strengths of quantum learning as holistic, positive, and entertaining and aligned the weaknesses as teacher-related, student-related, time-related weaknesses, and infrastructure-related weaknesses. The weaknesses of the quantum learning model were listed as follows: the teachers may be inexperienced in implementing the model, the students may be intimidated, it can cause passive students to turn in on themselves, the classroom facilities of the school were not suitable for implementing the model, and teachers may be anxious about not being able to complete the activities on time because there were many activities to be performed.

There were no studies on the use of the quantum learning model on a subject related to the vocational training of elementary school teachers. However, in a study conducted to determine the opinions of science prospective teachers about the quantum learning model, it was determined that prospective teachers defined the model as a permanent model drawing attention to different perspectives and facilitating the teaching process (Etyemez Demirboğa, 2014). Positive opinions about the quantum learning model were similar in both this study and other studies.

Most of the teachers participating in the training program (10 out of 20) did not plan to implement the model in their lessons. Among the reasons for not planning to implement the model, teachers reported that the quantum learning model had teacher-related, student-related, time-related, and infrastructure-related weaknesses. The findings of the study conducted by Etyemez Demirboğa (2014) with science prospective teachers revealed that the prospective teachers found the model time-consuming, it would be difficult to implement in crowded classrooms, and additional materials would be required. The fact that teachers and prospective teachers had similar opinions about the implementation of the model revealed the weaknesses of the model in practice.

The teachers reported the strengths of the quantum learning model as being holistic, positive, and entertaining. Being holistic was associated with considering the students and their behaviors as a whole. Being positive was associated with providing lots of stimulants and involving students in the active learning process. Being entertaining was associated with a variety of different practices. In a study conducted by Saltık, Çalışır Zenci, and Pilanci (2020), it was reported that one of the strengths of the model was that the quantum learning cycle was compatible with the interests and tendencies of adults.

Considering the expectations of teachers from a new training program, teachers reported "involving the parents," "looking after the child during the training," and "developing the training content." In a study conducted by Kahyaoğlu and Karataş (2019), it was determined that teachers expected the content of professional development seminars to be changed, updated, and renewed. In other words, the teachers expected the training content to be developed. In this study, teachers reported that the content of the training program should be developed with an interdisciplinary perspective and by examining more cases. In this study, teachers reported that the content of the training program should be developed from an interdisciplinary perspective and by examining more cases. In this study, the training program was carried out in addition to the curriculum in the faculties of the researchers; the program was implemented only in four sessions after the teachers finished their lessons, and the researchers kept the content short so as not to tire the already tired teachers further. Teachers also reported that it would be more beneficial for them to receive this training in the 15-day seminars they held in September and June. Training programs should be organized to meet the expectations of teachers.

In the third question of this study, the answer to the question "What are the learning outcomes of the teachers participating in the training program on child abuse and neglect?" was sought. The teachers reported that they should call the Alo 183 social support line in case of child abuse and neglect. They learned about the types of neglect and abuse and the effects of abuse and neglect on the child. These learning outcomes demonstrated that teachers gained awareness about child abuse and neglect. The findings of a study conducted by Yeğin (2020) also revealed that the training of prospective teachers on child abuse and neglect had an impact on their

awareness levels. In this regard, it was concluded that the training program implemented influenced the awareness of teachers.

In a study conducted by Toydemir (2019), it was concluded that teachers working in private education institutions considered themselves and their colleagues sensitive about child rights, child neglect, and child abuse but accepted that their knowledge was insufficient, they were not sufficient in diagnosing neglect or abuse, and there was not enough information about how to report if they encountered a case of neglect or abuse. Çelik (2020) conducted a study to examine abuse and neglect incidents that took place between 2012 and 2015 and turned into an investigation in schools (preschool, primary school, middle school, and high school) in Istanbul, Turkey. When a total of 550 files were examined, it was determined that the people who complained the most about abuse and neglect were the parents of the students. Teachers ranked last in terms of complaining about or reporting cases of abuse and neglect. One of the learning outcomes of the teachers was "Knows that he/she should call the Alo 183 social support line in case of child abuse and neglect." This finding demonstrated that teachers knew what to do in the case of child abuse and neglect. The awareness of teachers about reporting revealed the effect of the implemented program.

5. Recommendations

Professional development courses or training programs to be organized for teachers should be based on the quantum learning model with small groups of teachers (if possible), should involve teachers holistically (if not possible), and should be carried out by expert academics in the field in a friendly, warm, and humorous environment, supporting their cognitive, emotional, and psychomotor development by using various methods and techniques interactively. The findings of a study conducted by Kahyaoğlu and Karataş (2019) demonstrated that teachers wanted to receive training from academicians, psychologists, and other professionals who were experts in their fields in their professional development programs.

Necessary arrangements can be made in schools to eliminate the negative opinions of teachers about the implementation of the quantum learning model. The philosophy of the model can be explained. The teachers can be informed about how to implement it with the available facilities in schools, how to organize time management during implementation, and how to ensure the participation of students in the process.

The opinions of teachers on the use of the quantum learning model in a training program organized to raise awareness about child abuse and neglect were positive. All the teachers participating in the training program positively evaluated the implementation of the quantum learning model in the content on child abuse and neglect. New training programs can be prepared to support and nurture this positive opinion on child abuse and neglect. In a study conducted by Kaçan (2004), it was determined that elementary school teachers wanted to receive in-service training on teaching according to individual differences, motivating the student, getting to know the student, discipline, human relations, communication, speaking well and effectively, using time effectively, modern teaching methods and techniques, education of children with learning difficulties, education of gifted and retarded children, special education methods such as Turkish teaching (primary literacy teaching), teaching mathematics, and programs that develop the personality traits of teachers and provide appropriate attitudes and behaviors. The implementation of training programs organized for teachers in accordance with the quantum learning model in the above-mentioned titles can increase the learning outcomes of teachers.

In this study, teachers reported that parents should be involved in the training program on child abuse and neglect, that the foundation of the student is laid in the family, that the child is neglected or abused in the family, and that parents should be as conscious as the teachers about child abuse and neglect. Training programs can be organized to meet the expectations of teachers in this regard.

"During the planning, data collection, analysis, and reporting of this study, the ethical principles and rules in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. There was no practice against scientific research and publication ethics, and informed consent was obtained from all individual participants participating in this study.

6. References

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