

Teachers' opinions on in-service training programs provided by Ministry of National Education through distance education and suggestions for improvement

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Highlights

- This study aims to reveal the problems they face in this process and their suggestions for solutions to these problems.
- In order to establish the standards of the in-service training program to be conducted through distance education, it will facilitate the authorities to consider each stage of the e-learning process (planning, design, development, evaluation, transfer and review) and to examine the eight dimensions of e-learning (Technology, Interface, Evaluation, Administrative, Resource Support; Ethics, Institutional)
- In order for teachers to use distance learning systems more effectively and efficiently, it is vital that they are developed according to teachers' suggestions and expectations are met

Abstract

This research is a qualitative study that focuses on the experiences of teachers working in Turkish Ministry of National Education in the in-service training programs they receive through distance education, and aims to reveal the problems they face in this process and their suggestions for solutions to these problems. In this study, a case study was preferred to learn in detail the thoughts, perceptions, experiences, difficulties encountered in practice, and suggestions for improving the courses of teachers working in the institution about the in-service training courses they took through distance education between 2017 and 2021 in Turkey. In the study, a non-probability sample type, quota sample, was used. The study group of the research consisted of 18 teachers from Eskişehir province in the Central Anatolia region in the 2020-2021 academic year. In this study, which was structured interviews as a data collection tool, the data obtained were analyzed by content analysis method. As a result of the research, the main problems experienced by the teachers during the process of receiving in-service training through distance education and the suggestions related to these problems were revealed in a systematic way. In order for teachers to use distance learning systems more effectively and efficiently, it will facilitate the authorities to consider each stage of the e-learning process (planning, design, development, evaluation, transfer and review) and to examine the eight dimensions of e-learning (Technology, Interface, Evaluation, Administrative, Resource Support; Ethical, Institutional) These results will contribute to the effective use of the distance education system, which is seen as an innovative and sustainable education model for teachers' professional development. It is vital that they are developed according to teachers' suggestions and expectations are met.

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Keywords: *Distance Education, In-Service Training Programs, Case Study*

1. Introduction

Today, teacher education has various purposes such as ensuring that students develop their potential, serving as role models, helping transform education and society, encouraging self-confidence and creativity, etc. In addition to these, teachers are expected to develop appropriate attitudes and behaviors

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towards the profession they practice (UNESCO, 2002, p. 9). In order to meet these expectations and purposes, in-service training activities are important in terms of providing teachers with four basic requirements. These are expressed as follows:

Teachers should have a significant knowledge base in their profession,
Teachers should increase their knowledge and understanding of the subjects they will teach,
Teachers should understand students by equipping them with pedagogical knowledge,
Teachers should develop their practical skills and competencies,

On the other hand, the quality of teachers and teaching is influenced by two interrelated factors. These are: the changing conditions of teachers in their time and environment, their training and professional development. Moreover, it is an important factor for countries to implement educational reforms in order to reach national standards in a changing world (Robinson & Latchem, 2005, p. 65).

In this context, teachers are of vital importance for the education of countries. If sufficient and more qualified teachers are not trained, countries cannot achieve their educational goals. In order to bring the quality of education of countries to certain standards, there is a need for professional teachers who carry out education and training activities. In order to meet these needs, lifelong education of teachers has become necessary. However, countries have become interested in open and distance in-service training as an alternative since traditional approaches cannot meet all the demands of the profession (UNESCO, 2002, p. 8).

Distance education today has always played an important role in the professional development of teachers working in education systems that appeal to the masses, both in developed and developing societies. The fact that there are few regional teacher training institutions that can serve teachers with many schools in different geographical areas of countries, especially in remote areas, is insufficient in terms of reaching teachers for in-service training (Perraton, 2003, p. 264). On the other hand, continuous professional development has been gaining interest over time for various reasons. Since education is changing rapidly, it has become a necessity for teachers to keep up with these changes. Therefore, countries are changing their education policies in the increasingly competitive global world. In parallel with this, they are making various efforts to update the teaching profession and increase the quality of teachers. They have to benefit from the most advanced technologies to educate them for life. In this context, in-service training through distance education, where high technologies are used to reach their teachers in a shorter time, has become inevitable (Robinson and Latchem, 2005, p. 108). In this context, today, the Turkish Ministry of National Education carries out its in-service activities through distance education as well as face-to-face.

Turkish Ministry of National Education believes that it is vital for teachers to receive continuous in-service training to improve and renew themselves throughout their professional lives with technological developments. Ministry of National Education's preference for distance education while carrying out these in-service activities aims to increase the quality of education by reaching almost all teachers. However; it is necessary to learn the experiences of teachers in order to know to what extent these applications will increase the quality of education and how beneficial they will be for teachers. Because it is thought that the realities underlying these applications are hidden in the experiences of teachers who are the actors in the field. It will be possible to determine how beneficial distance education applications are, to identify the problems experienced in the application, to discover the positive aspects of the activities and to know how effective these applications are in teacher education with this research. For this reason, this study aims to deeply examine the opinions of teachers, who constitute a large mass of teachers, about the in-service training programs conducted by Turkish Ministry of National Education through distance education, to identify the deficiencies experienced in the implementation of the in-service training courses conducted by the Ministry of National Education through distance education, and to make suggestions for the development of these courses. It is believed that this research will guide Ministry of National Education in terms of theory and practice of the in-service training courses to be organized through distance education, and to contribute to the increase in the quality of the in-service training courses to be organized through distance education and their widespread use. The following sub-research questions are investigated in this research:

1. What are the teachers' opinions on the difficulties they face in the in-service training programs provided by Ministry of National Education via distance education?

2. What are the teachers' suggestions for the development of the in-service training programs provided by Ministry of National Education via distance education?

2. Literature

One of the important factors affecting the development of today's societies is education. For this reason, on the one hand, countries have to provide education activities to their students in Primary, Secondary and Higher education in the best way possible. On the other hand, it has to take care of providing education opportunities in various ways to individuals who cannot continue their education at any school level and to the staff who are on the job (İşman, 2011, p. 5-6). Since it is very costly to reach all citizens of a country through face-to-face education, it has to appeal to alternative ways to reach them. In our age, the most important method to fulfill this need is distance education (Kaya, 2002, p. 368).

Rıza (1997) defines distance education as activities carried out with the systematic use of specially prepared written and visual mass communication programs and short-term face-to-face teaching regardless of the limitations of traditional education such as age, place, time, place, method and purposes. According to Uşun (2006, p. 7), distance education is a planned and systematic educational technology application which the source and the receiver are in separate environments in most of the learning-teaching activities, which gives its recipients the opportunity of “individuality”, “flexibility” and “independence” in terms of teaching age, goals, time, place, method, which written and printed materials, audio-visual tools and current technologies are used together in learning-teaching processes, which educational material, various technologies and methods are used as in face-to-face education, On the other hand, Özkul and Aydın (2012, p. 2) defined distance education as a learning process in which learners are distant from each other and learning resources in terms of time and space, and their interaction with each other and with learning resources is based on distance communication systems. On the other hand, Özkul and Aydın (2012, p. 2) defined distance education as a learning process in which learners are distanced from each other and learning resources in the context of time and space and which learners' interactions with each other and with learning resources are carried out based on distance communication systems.

In general, when we look at the definitions about distance education, although there are many definitions of distance education, there are common points in the definitions. Distance education stands out as a system which it is an institutional based formal education process, which learners and teachers are separate in space and time, which specially designed study materials and teaching method are used, which new technologies are used to provide two-way communication by connecting students, teachers and institutions taking distance lessons in addition to facilitating teaching and learning. Keegan (2005, p. 35) analyzed each of the definitions of distance education and revealed five basic features of distance education. These features are listed as follows:

- During the learning process, the teacher and the student are in different places.
- The influence of the educational organization is vital, both in the planning and preparation of learning materials and in the provision of student support services.
- There is a need for the use of printed, audio and visual tools in order to convey the content of the course to the learners by providing communication between the teacher and the student.
- Two-way communication is necessary for the student to start learning activities.
- The learning process takes place in the form of individual learning rather than group learning that occurs in face-to-face education.

Distance education is not a simple system or component. Converting an institution to distance education or founding a new distance education institution means making significant changes in the use of teaching resources. While doing this, politicians and experts should consider why and how they will implement this system professionally (Moore and Kearsley, 2012, p. 8). Those responsible should place distance education

on philosophical foundations and put the principles and methods of the system into practice (Biao, 2012, p. 19). Moore and Kearsley (2012, p. 8) explain the importance of distance education with the following sentences:

- With distance education, inequalities between all age groups are eliminated. And also, with this system, it is possible for people of all ages to access education and learning activities.
- With lifelong learning, people update their professional knowledge and contribute to their individual development.
- The cost of scarce educational resources is reduced.
- The quality of existing education structures is improved.
- Large masses are reached by increasing the capacity of the education system.
- It is ensured that education campaigns reach certain target audiences.
- the training capacity is increased by following the developments in new subject areas
- It contributes to the integration of education with work and family life.
- An international dimension is brought in to educational experiences.

Since there is no time and place limit in distance education, individuals can have unlimited access whenever they want, they can access the materials they want, online or offline. Because there is no time, duration and place limitations in distance education (Kılınç, 2015, p. 10). Since the student is in an independent state, he determines the organization, place and time of teaching activities according to his own interests and needs. In particular, individuals choose learning-teaching activities according to their own level and in a way that they learn on their own. Thus, personal learning needs are met (Arat and Bakan, 2011, p. 368).

Distance education is defined as an educational process in which a significant part of it takes place remotely and flexibly beyond the formal learning environment. Therefore, distance education includes educational activities in which the constraints on education are minimized in terms of access, time and place, speed and method of study, or any of these, based on the use of learning materials (Shohel, 2012, p. 95). Distance education is to provide access to the learning process in space, time, content, choice, access qualities and teaching resources through the use of new educational resources. These resources are various information and communication resources developed in line with technology (Simonson et al., 2008, pp. 78-79). Books, publications, cassette recordings, computer-based materials, computer interaction, video conferencing system are the tools used in distance education. With the spread of these resources, distance education has taken its place in the professional development process of teachers (Danaher & Umar, 2010, p. 63).

Ministry of National Education defines in-service training as the process of developing the competencies of the employees of Ministry of National Education from the first day they start their duties until the last day they leave their duties. In-service training activities are organized by the General Directorate of Human Resources of our Ministry in order to maximize the professional competencies of the personnel working in titles other than teachers during their duties, to increase their equipment regarding the legislation and projects implemented by the Ministry, and to develop their performance in line with the strategic goals of the institution. In addition, Ministry of National Education has increased its in-service activities through distance education since 2005. In this context, it has carried out important distance in-service education activities such as Computer Education Project through Distance In-Service Training, Certificate-Based Distance In-Service Training Project (E-Certificate), WITPET Project, Intel Teacher Program Blended In-Service Training, Constructivist Interactive In-Service Training Programs through Distance Education Method, Distance English Education in order to train personnel affiliated to the central and provincial organizations of the Ministry of National Education, especially teachers (MEB, 2012).

Within the framework of the 2010-2014 Strategic Action Plan, Ministry of National Education has made great efforts to introduce technology to new education programs for teachers working in all educational institutions and to implement these changing programs in the best way possible. For this purpose, it has expanded formator trainings (MEB, 2014, p. 52). In addition, in parallel with these developments, according to Ministry of National Education 2012 Activity Report, it is aimed to increase these studies in the future

by organizing distance education portals and modules with rich, reliable and up-to-date content that contribute to personal and professional development in cooperation with stakeholders (MEB, 2012).

In 2006, Ministry of National Education developed a system that would allow teachers to apply for in-service activities over the internet and have these applications approved, evaluated, assigned and announced by the affiliated institution, and opened the address “mebbis.meb.gov.tr” to enter this system. In addition, with the implementation of the Fatih Project in 2011, revision work was started to enable the use of Distance Education Centers UZEMs, the installation of which was being completed at 110 points. In 2012, the number of trainings via video conference reached 2,292, and the number of participants reached 227,432. These central activities are carried out under the responsibility of the General Directorate of Teacher Training and Development. In addition, the provision and management of e-content (Education Information Network) is carried out under the responsibility of the Educational Software and Content Management Group Presidency of the General Directorate of Innovation and Educational Technologies; effective use of IT in teaching programs is carried out under the responsibility of the Board of Education and Discipline; in-service training for teachers on the use of IT in lessons and ensuring conscious, safe, manageable, measurable use of IT and the internet is carried out under the responsibility of the General Directorate of Innovation and Educational Technologies, Innovation and Research Group Presidency (MEB, 2012, pp. 52, 67, 68, (MEB, 2018a).

Since 2013, Ministry of National Education has started to include in-service training courses and seminars to be provided via distance education in the “Professional Development Education Plan for Teachers” published at the beginning of each year. In 2020, due to the closure of schools during the Covid-19 Pandemic, the in-service training seminars and courses provided to teachers via distance education have increased. In addition, the 2023 Vision document published by Ministry of National Education on October 23, 2018 focused on the professional development of teachers and school administrators. In addition, the increase in distance in-service training has been emphasized. In this context, it was emphasized that the trainings for the professional development of teachers and school administrators will be restructured, it was stated that importance will be given to postgraduate education in addition to in-service training of the personnel and concrete studies will be carried out. In addition, this document stated that face-to-face, formal and/or distance education studies will be implemented in cooperation with universities and Civil Society Organizations in order to continuously support the professional development of our teachers and school administrators (MEB, 2018b, p.43-44).

3. Methodology

3.1. Research Model

In this study, a case study, one of the qualitative research designs, was used. A case study is a qualitative research method in which a current situation or event is examined in depth, datum is collected systematically, and what happens in the real environment is examined (Yıldırım and Şimşek, 2011, p. 277). In this study, a case study was preferred to learn in detail the thoughts, perceptions, experiences, difficulties encountered in practice, and suggestions for improving the courses of teachers working in the institution about the in-service training courses they took through distance education between 2017 and 2021.

3.2. Data Collecting Tools

In this study, structured interviews were used as datum collection tool. Semi-structured interview forms were used in the interviews. Interviews are a technique designed to reveal a vivid picture of the participant's perspective on the research topic. Interviews are an effective qualitative tool for obtaining people's views on their feelings, ideas, and experiences. Interviews are an opportunity to gain perspective on how people interpret the world (Mack et al., 2005, p. 29). In this context, interviews were conducted to learn about teachers' experiences in in-service programs through distance education, their thoughts, feelings and emotions in situations where they were in social interaction, and the positive or negative attitudes that this application left in them. The questions to be asked to the participants in the interview form were prepared by considering the eight dimensions of Khan's (2004, p. 1) E-Learning Framework. 'Pedagogical',

'Technological', 'Interface Design', 'Evaluation', 'Management', 'Resource Support', 'Ethical' and 'Institutional' dimensions were taken into consideration for the evaluation of in-service training programs provided by the Ministry of National Education through distance education. Khan (2004, p. 1) explained that learning represents a paradigm shift not only for learners but also for the instructor, teachers, administrators, technical and other support services personnel and the organization. E-learning has been seen as an innovative approach for the open and distance learning environment to provide a redesigned, learner-centered, interactive and facilitated learning environment for anyone, anywhere, anytime, using the attributes of various digital technologies, resources and other appropriate learning materials. The E-Learning Framework is an inventory that systematically addresses the problems of an institution's e-learning environment. The E-Learning Framework, which covers eight dimensions of open and distance learning environments, is given in Table 1:

Table 1.

Eight Dimensions of the E-Learning Framework

E Learning Dimensions	Descriptions
1. Pedagogical	The pedagogical dimension includes teaching and learning activities. It covers content, audiences, target and tool analysis, design approach, creation of e-learning environments, teaching methods and strategies.
2. Technological	This dimension examines technology infrastructure issues in learning environments. This includes infrastructure planning, hardware and software.
3. Interface design	It refers to the overall look and feel of e-learning programs. The interface design aspect covers page and site design, content design, interface navigation and usability testing.
4. Evaluation	It includes both evaluation of students and evaluation of the teaching and learning environment.
5. Management,	It refers to the creation of a learning environment and the presentation of learning activities to the target learner.
6. Resource Support	This dimension examines the online support and resources necessary to develop meaningful learning environments.
7. Ethical	It deals with social and political impact, cultural diversity, bias, geographic diversity, learner diversity, information accessibility, etiquette, and legal issues.
8. Institutional	It is concerned with issues of administrative affairs, academic affairs and student services related to e-learning

(Khan, 2005, s. 15).

3.3. Study Group

In the study, a non-probability sample type, quota sample, was used. Since distance education activities for different types of schools in the Ministry of National Education constitute a difference, quota sample type was chosen. In the quota sample type, a certain number of cases are selected from many predetermined categories that will reflect the diversity of the population by using random methods (Neuman, 2010, p. 321). In this study, the quota sample type was used to reach teachers working in kindergartens, primary schools, secondary schools and high schools within the Ministry of National Education. The study group of the research consisted of 18 teachers from Eskişehir province in the Central Anatolia region. Interviews were conducted with the volunteer participants. In order to ensure the richness and diversity of the data to be obtained, the participants' gender, branch, seniority, higher education institution graduated from, education degree, and the type of school they work in were taken into consideration. The number of participants in the research was determined according to the sample list. Schools within the provincial borders were visited for the research. Then, the participants were contacted and an appointment was made for the interview from the volunteer teachers who wanted to be interviewed. The number of teachers to be interviewed and the type of school they work in are given in Table 2:

Table 2.

Demographic Characteristics of the Interviewed Teachers Graduated Higher Education Institution

Participant	Gender	Branch	Seniority Year	Graduated Education Institution	Higher Degree	Graduated Education Type	of School Served
T1	Female	Turkish Language and Literature	6-14	Faculty of Arts and Sciences	Bachelor's Degree	High School	
T2	Female	Guidance and Psychological Counseling	6-14	Faculty of Education	Bachelor's Degree	High School	
T3	Male	Metal Technology	1-5	Faculty of Technical Education	Bachelor's Degree	High School	
T4	Male	Special Education	6-14	Faculty of Education	Bachelor's Degree	Primary School	
T5	Male	Primary school	15-20	Faculty of Education	Master's Degree	Primary School	
T6	Male	Primary school	15-20	Faculty of Education	Bachelor's Degree	Primary School	
T7	Male	Social Studies	6-14	Faculty of Education	Master's Degree	Secondary School	
T8	Male	Turkish Language and Literature	6-14	Faculty of Arts and Sciences	Bachelor's Degree	High School	
T9	Female	French	21 and over	Faculty of Education	Bachelor's Degree	High School	
T10	Female	Mathematics	6-14	Faculty of Arts and Sciences	Master's Degree	High School	
T11	Female	Electrical-Electronics	1-5	Faculty of Technical Education	Bachelor's Degree	High School	
T12	Female	Geography	6-14	Faculty of Education	Bachelor's Degree	High School	
T13	Female	Preschool	21 and over	Faculty of Education	Bachelor's Degree	Kindergarten	
T14	Female	English	6-14	Faculty of Education	Bachelor's Degree	Secondary School	
T15	Male	Mathematics	6-14	Faculty of Arts and Sciences	Bachelor's Degree	High School	
T16	Male	Science	6-14	Faculty of Education	Bachelor's Degree	Secondary School	
T17	Male	Technology Design	1-5	Faculty of Education	Master's Degree	Secondary School	
T18	Female	Turkish Language and Literature	6-14	Faculty of Arts and Sciences	Phd Graduate	High School	

3.4. Data Collection and Analysis

In this study, semi-structured interviews were conducted to determine the problems experienced in the in-service training courses conducted by the Ministry of National Education through distance education and to learn the suggestions for the development of these in-service training programs. In the 2020-2021 academic year, interviews were conducted with 18 teachers from Eskişehir province in the Central Anatolia region. Appointments were made with the teachers for the interviews. The interviews took place over a period of one month. The interviews were recorded using a voice recorder.

In the study, the descriptive analysis method was used to analyze the data obtained from the teachers' opinions about the evaluation of the in-service training program provided through distance education. According to this approach, the data obtained, the questions to be used in the interview and observation processes, and the factors to be taken into consideration are summarized and interpreted according to previously determined themes. The findings obtained are presented to the reader in an organized and interpreted way (Yıldırım and Şimşek, 2011, p. 125). The analysis of qualitative data was done in a computer environment. In this context, the analysis of data was done in four stages. First, a framework was prepared for data analysis based on the dimensions related to the interview questions in the conceptual framework of the research. Then, a thematic framework was prepared according to this framework and the data were brought together in a meaningful and logical way. This thematic framework was benefited from the eight dimensions of Khan's (2004, p. 1) E-Learning Framework ('Pedagogical', 'Technological', 'Interface Design', 'Evaluation', 'Management', 'Resource Support', 'Ethics' and 'Institutional'). In this context, themes and sub-themes were created from the obtained data. In the next stage, the data were defined in an easy and understandable way. In the last stage, the defined data were explained, associated and interpreted, and the cause-effect relationships between the findings and the comparisons, similarities and contrasts between the facts were revealed. The obtained themes and sub-themes were described by making direct quotations from the teachers' opinions.

The interview form consisted of 15 open-ended questions. The interviews lasted between 30 and 45 minutes. The semi-structured interview questions are as follows:

1. What are your thoughts on the methods and techniques used by trainers in the courses? Do you think the strategies, methods and techniques used contribute to effective learning? What are your suggestions regarding the strategies, methods and techniques used?
2. How do you evaluate the in-service training activities carried out by the Ministry of National Education via distance education in terms of developing high-level skills such as analysis, synthesis, problem solving, critical thinking, etc.? What are your views on the adequacy of the in-service training activities carried out by the Ministry of National Education via distance education in terms of developing teachers' high-level skills?
3. How do you evaluate the precautions taken by the Ministry of National Education against possible problems during the course? Do you find these precautions sufficient? What are your suggestions on this issue?
4. What do you think about the adequacy of the information given to teachers before the courses start regarding which learning management system the course will be carried out on?
5. What do you think about the adequacy of the information given to teachers before the courses start regarding how to use the learning management system?
6. How do you evaluate teachers' use of the learning management system (easy access, ability to start the activity, interaction)? What are your suggestions to prevent disruptions and improve the learning management system?
7. How do you evaluate the evaluation activities in the courses? Is there an evaluation to see the difference between your level before starting the courses and your level after completing the course? Please explain?
8. What are your thoughts on student acceptance for the activities that are opened, the process in the activities, the activities and the user guides for completing the activity? What kind of work would you like the Ministry of National Education to do on this issue?

9. How do you evaluate the work done by the Ministry of National Education regarding the organization of remote in-service activities? What are the expectations of teachers from these efforts?

10. What are your opinions and suggestions regarding the adequacy of online and offline technical support for solving problems that may occur during the course?

11. What are your thoughts on institutional policies requiring confidentiality and content requiring permission such as copyright in courses? What are your suggestions to prevent problems in this regard in the future?

12. What are your suggestions regarding the implementation times and durations of courses? In what time period do you think courses should be organized?

13. What do you think about the privacy policies and ethical guidelines for the online support for courses, the tests applied, the assignments and projects given? What are your suggestions to avoid problems in this regard?

14. What are your views on the in-service training activities carried out through distance education in the 2023 Education Vision Document of the Ministry of National Education?

15. Is there anything you would like to add about the in-service activities carried out by the Ministry of National Education through distance education? If so, please explain.

4. Findings and Discussions

4.1 Findings regarding the difficulties encountered teachers' in-service training programs provided by the Ministry of National Education through distance education

As a result of the analysis obtained from the interviews, the difficulties encountered by teachers in the in-service training programs provided by Ministry of National Education through distance education were examined and thematized. As a result of the findings, 8 themes and 31 sub-themes were obtained. The themes reached, the number of sub-themes and their percentages are presented in Table 3

Table 3.

Theme, Sub-Theme Frequency and Percentage Values Regarding the Difficulties Encountered by Teachers in In-Service Training Programs Provided by Ministry of National Education through Distance Education

Themes	The Number of Sub-Themes (f)	Percentage
1. Pedagogical	6	19
2. Technological	3	10
3. Interface design	4	13
4. Evaluation	3	10
5. Management,	4	13
6. Resource Support	2	6
7. Ethical	4	13
8. Institutional	5	16
Total	31	100

4.1.1. Findings related to the difficulties encountered in the "pedagogy" dimension

As a result of examining the difficulties encountered by teachers in the in-service training programs provided Ministry of National Education through distance education, 6 separate sub-themes belonging to the main theme of "Pedagogy" were reached. The sub-themes and frequency values reached are presented in Table 4.

Table 4.*Sub-Themes and Frequency Values of Problems Encountered in the "Pedagogy" Dimension*

Sub-Themes	f
The presentation method is mostly used in courses	15
There is no interaction between the trainer and the trainees in the courses.	10
Trainees are passive in the courses.	7
Trainees working in the courses are not competent in their fields of expertise.	3
Trainees participating in the courses have low motivation.	2
Courses that must be done face-to-face are done through distance education.	2

According to teachers, the difficulties that teachers encounter in terms of pedagogy in in-service training courses via distance education are listed as the use of only the presentation method in courses, the lack of interaction between trainers and trainees in courses, trainees being passive in courses, trainers working in courses not being competent in their fields of expertise, trainees participating in courses having low motivation, and courses that should be conducted face-to-face being conducted via distance education. According to teachers, these difficulties reduce the quality of in-service courses conducted via distance education and negatively affect teachers' participation in courses to be organized later. Sample views on the problems encountered by teachers in the "Pedagogy" dimension are as follows:

T4: "... First of all, the methods and techniques were generally based on the presentation method. In other words, the subject was explained and the teacher tried to understand it himself. There were not many extra topics that would involve the teacher. That's why I don't think this presentation method was very productive."

T14: "... Of course, I think the presentation method is effective to a certain extent. At least if I were to talk about the same training, I can say it based on that. For example, instead of doing it like this. Let's do it interactively, like in a school environment, a classroom environment. It can be like this, they can show it. And they can expect us to implement it in the same way. They can actively involve us in the process a little more. I mean, I can care about these. Otherwise, because what do they say, it's just words, I can say it's not very effective. Because you can forget after a while. In other words, it should be a little more concrete and life-oriented."

T10: "... So I think the biggest problem of distance education is that our participant group remains passive, and therefore, there are problems and disconnections from that education. Therefore, even if it is a little more interactive and we do not see each other face to face, this does not mean that mutual communication cannot be established. Therefore, I think that education should be mutual. I think that education should be a little more sharing. I think that both the people giving the education and the participants should share their thoughts on the subject."

4.1.2. Findings regarding the difficulties encountered in the "Technology" dimension

As a result of examining the difficulties encountered by teachers in the in-service training programs provided by Ministry of National Education through distance education, 3 separate sub-themes belonging to the theme of 'Technology' were obtained. The sub-themes and frequency values obtained are presented in Table 5.

Table 5.*Sub-Themes and Frequency Values of Problems Encountered in the "Technology" Dimension*

Sub-Themes	f
Participants in the courses are experiencing internet connection problems.	11
There are problems in transitions between videos in the courses.	8
The learning management system in the courses cannot be accessed from all browsers and devices.	6

According to the teachers, the technological problems experienced by the trainees can be listed as internet connection problems in the courses, problems in transitions between videos in the courses, and the inability

to access the learning management system in the courses from all browsers and devices. It can be said that these problems make it difficult to take the courses at the desired times and cause the trainees to waste their time unnecessarily. Some of the views on the problems experienced by teachers in the “Technology” dimension are as follows:

T11: “There is a problem in everyone’s life with the Education Information Network. Generally, when there is a lot of traffic in the system, there are problems with that course. I think this problem should be fixed. Other than that, I think it is easy to access. There is no problem with access. As I said, there are problems, I had received training about EIN in general. You can do many things. You can use EIN effectively. The biggest problem is that the site freezes during such a loading time and I cannot log in. These can be said to be the problems I experienced.”

T15: “Let me put it this way, teacher. there is a problem with videos uploaded to portals like EBA or similar. Bbz asks you to watch a certain video. But when you watch those videos, for example, the system can sometimes accept it as not being watched. This causes us to take that training again, spend time and watch that video again. I had a problem in this sense. In this sense, I think these should be taken into consideration and solution suggestions should be brought forward. In other words, I cannot say that the methods taken are very sufficient, unfortunately.”

T3: “... When I received a training, for example, I was watching the first video. I finished it. Then I had to move on to the second one. You might have to sit down, play it again, and then open and watch it when you start. ... For example, I try to access it from my phone or my tablet. In terms of trainings, for example, I was having problems during the transitions. It is not compatible with devices or browsers. Maybe it is easier to watch from a computer, but I don't think it works fully efficiently in all these systems. So, for example, I sometimes complete the training from my tablet at home. Sometimes I cannot open my computer. I can watch it from my phone when necessary. For example, I could not skip the video I watched in the last training on my phone. Because there was no tick mark. It starts from the beginning again. Technical problems can occur in this way.”

4.1.3. Findings regarding the difficulties encountered in the "Interface" dimension

As a result of examining the difficulties teachers encountered in the in-service training programs provided by Ministry of National Education through distance education, 4 sub-themes belonging to the theme of ‘Interface’ were reached. The sub-themes and frequency values reached are presented in Table 6.

Table 6.

Sub-Themes and Frequency Values of Problems Encountered in the "Interface" Dimension

Sub-Themes	f
The interface in the courses has a complex structure.	7
In-service training is provided in a sub-module of EBA.	6
Information on the use of the interface in the courses is insufficient.	5
The interface in the courses is in foreign languages.	5

According to teachers' opinions, the interface in the courses is seen as complicated. The fact that in-service training is given in a sub-module of EBA makes the use of the interface difficult. Inadequate information about the use of the interface in the courses and the use of foreign languages in the interface in the courses cause problems in in-service training. It can be said that the difficulties encountered with the interface used in in-service training reduce the performance of the trainees in in-service training and cause the training received to be inefficient.

T10: “I don’t think it’s enough, but if you are ready to use that application, you can use it. Since you know English, you can easily use that platform. Someone who doesn’t know English may have difficulty using this application...”

T12 “A friend of ours who knows a foreign language prepared a note about the platform, like a user manual, and shared it with all the school teachers to make their jobs easier. Because all the teachers were caught unprepared. No one knew a foreign language. ... “

T14: "... Of course, since students and teachers use the same system and the same interface, a separate in-service training system should be created for teachers. Because students and teachers log into the system at the same time, many infrastructure problems can be experienced during the same period. A separate system can be used especially during exam periods such as the end of school. Of course, this can be easier for teachers. A portal that only teachers use can be simpler. The interface can be more useful."

T15: "... In the trainings I attended, I think the places where I can get information about these beforehand are very limited. For example, when I enter the in-service training portal, I see where to access it. But I think it is very chaotic. In fact, I applied for the intelligence games training last time, but I really couldn't find the platform through which this training would be given. Let me tell you the truth, when I entered the EIN system afterwards, I couldn't find where to get the course there either..."

4.1.4. Findings regarding the difficulties encountered in the "Evaluation" dimension

As a result of examining the difficulties encountered by teachers in the in-service training programs provided by Ministry of National Education through distance education, 3 separate sub-themes belonging to the main theme of 'Evaluation' were reached. The sub-themes and frequency values reached are presented in Table 7.

Table 7.

Sub-Themes and Frequency Values of Problems Encountered in the "Evaluation" Dimension

Sub-Themes	f
Measurement and evaluation activities in courses are only carried out at the knowledge level.	7
Pre-tests and post-tests are not carried out in courses.	6
Practical exams are not included in courses.	2

According to teachers, the most important problem encountered in the theme of 'Evaluation' is that the measurement and evaluation activities in the courses are only carried out at the knowledge level. Measurement and evaluation tools that measure high-level skills such as analysis, synthesis and evaluation are not included. Pre-tests and post-tests are not carried out in in-service courses conducted through distance education. In addition, teachers think that the absence of practice exams in the courses reduces the quality of the course and that teachers have problems in applying what they have learned in their professional lives. Some of the teachers' opinions about this sub-theme are as follows:

T7: "... I see that these exams are mostly at the knowledge and comprehension level. I see that there are not many questions, in fact almost none, at the analysis, synthesis and evaluation level, which are higher-level skills. I think that questions that measure the higher-level levels in Bloom's Taxonomy should come to the forefront..."

T12: "The current evaluation steps are mostly evaluations consisting of short questions or multiple choice questions, to be honest. In this regard, the efficiency may not be very high, that is, it may not be of a quality that can be measured. Maybe, as we said, there could be a longer-term measurement system..."

T8: "I find the evaluation activities in the system insufficient. I think it would be better if there were more effective evaluation activities, especially in some courses. Frankly, even if these courses have distance education, I think that theoretical evaluations should be made more active in some courses, especially in health-related courses..."

T14: "Let me say there is an evaluation system. However; I think this evaluation system only measures your level of knowledge. ... In other words, it is said that it should only be done and applied in this way. ... In other words, how well does that teacher apply what he/she has learned from that training. Or, as I said, how much practice is done in this regard?..."

4.1.5. Findings regarding the difficulties encountered in the "Management" dimension

As a result of examining the difficulties encountered by teachers in the in-service training programs provided by Ministry of National Education through distance education, 4 sub-themes belonging to the main theme of 'Administrative' were reached. The sub-themes and frequency values reached are presented in Table 8.

Table 8.*Sub-Themes and Frequency Values of Problems Encountered in the " Management " Dimension*

Sub-Themes	f
Teachers are not given enough information about when and on what platform the courses will be held.	7
Teachers' opinions are not taken into account when planning the courses.	6
Teachers are not informed about the planned in-service training courses.	5
In-service training courses are mandatory.	3

According to the teachers, not providing sufficient information about the aims, content and evaluations of the courses before they start, not providing sufficient information to teachers about when and on what platform the courses will be held, not consulting teachers when planning the courses, not being aware of the planned in-service training courses and making the opened in-service training courses compulsory are seen as the difficulties that teachers face in the " Management " field. Some of the teachers' opinions about this sub-theme are as follows:

T3: "... For example, when I apply for training, I only write the name of the in-service training program. There is no information about which platform that training will be given on. For example, maybe I don't have a computer at that moment. In other words, we may experience problems and difficulties such as not being able to attend the training. In other words, I think it would be very useful to state what the training is about and on which platform it will be given under the title of the training at the very beginning of the training..."

T6: "First of all, I think that the opinions of the people who will receive the training should be taken before this training is created. Because some trainings are mandatory. An announcement is made that all teachers should receive the mandatory training. We receive the training, but since it does not interest us much, how productive can it be? In other words, these should be asked to the teachers or the group that will receive the training, and I think it should contribute to them. In other words, I think there should be interesting studies that will increase their motivation both personally and professionally. ..."

T10: "First of all, I don't think the trainings were announced sufficiently. In other words, first of all, I don't think the call was sufficient. ... I have received many trainings thanks to my own efforts. I don't think the authorities made sufficient statements about the courses. ..."

T12: "Generally, we actually prefer trainings more for professional and field development. It is preferred more in order to be able to look at the work we do from different perspectives and to improve ourselves. Courses are preferred more because they can be applied in schools, classes, and lessons. I think it would be better if the ideas of the participants, namely teachers, were taken into consideration more or a survey was conducted regarding the needs of the teachers. ..."

4.1.6. Findings regarding the difficulties encountered in the "Resource Support" dimension

As a result of examining the difficulties encountered by teachers in the in-service training programs provided by Ministry of National Education through distance education, two sub-themes were created under the main theme of 'Resource support'. The sub-themes and frequency values obtained are presented in Table 9.

Table 9.*Sub-Themes and Frequency Values of Problems Encountered in the "Resource Support" Dimension*

Sub-Themes	f
Technical support is insufficient to resolve the problems experienced in the courses.	12
There is no expert to resolve the problems experienced in the courses.	3

In the theme 'Resource Support', participants emphasized that technical support was insufficient to solve the problems experienced in the courses. According to teachers, that there was no expert they could reach online or offline to resolve problems in courses. Quotations from some teacher candidates' answers are included:

T2: *"I do not find the technical support sufficient to solve the problems experienced in the courses. They get back to me very late. Maybe it is because I wrote to the technical support group and left it. It would be good if more experts were there to solve our problems."*

T9: *"... I don't think there is enough support to solve the problems. I mean, I don't know what precautions can be taken on that issue. But I had problems myself. When I had a technical problem for the first time last year, the problem couldn't be solved. And since I got technical support for the computer from my own neighbor, the problem was solved."*

T16: *"Unfortunately, of course we cannot reach anyone for technical support. This is actually one of the shortcomings of the system. I have not encountered any expert or technical support that could provide any help, synchronously or asynchronously, on this issue..."*

4.1.7. Findings regarding the difficulties encountered in the "Ethical" dimension

As a result of examining the difficulties encountered by teachers in the in-service training programs provided by Ministry of National Education through distance education, 4 sub-themes were created under the main theme of 'Ethical'. The sub-themes and frequency values obtained are presented in Table 10.

Table 10.

Sub-Themes and Frequency Values of Problems Encountered in the "Ethical" Dimension

Sub-Themes	F
There is no guide explaining the copyrights of the documents shared in the courses.	10
The questions and answers of the completion exams made in the courses are published on various websites.	5
Information that requires confidentiality is requested in online courses.	4
The courses are completed as if they are being watched by the trainee.	4

According to teachers, the absence of any guide explaining the copyrights of documents shared in courses may cause problems regarding copyrights for trainees. Publishing the questions and answers of the final exams conducted in courses on various websites is not ethical for teachers and may result in obtaining an unfair participation certificate. It is seen that requesting confidential information in online courses is not right in terms of trainees' private information being learned by others. Finally, teachers think that completing the courses as if they are being watched by trainees is not ethically right and that the training is not taken seriously. Quotations from some teacher candidates' answers are included:

T3: *"Here it is: do you approve, do you allow? Do you allow us to share this, to use this data? No such explanations are made or questions are directed. Or, we did not receive any information about which of these we will use. Of course, it would be useful to inform at the beginning of the training that we will request these from you and that you will use them in different environments and in the field of information. We may even forget that. Maybe they do not provide such information..."*

T4: *"... There may be a prohibition regarding sharing things that require copyright, teachers sharing them on their own website or sharing them on a platform where they will make a profit from it. I mean, I give an example, it can be stated with a warning. When downloading a PDF from the system, a warning can be given at the top to say that teachers are prohibited from using these, but there is no problem in using them on a site that will not make a profit."*

T11. *"... The exams that are held at the end of the exam and the course are already published on various platforms on the internet. So, there is no copyright, people can easily record and publish the questions. However, if there was a copyright, they would not do such a thing because they would have problems. Besides, how right is it to publish the questions in this way and for teachers to access these questions? ... This exam system definitely needs to be taken care of. In that case, it is definitely not ethical to get a certificate by looking at the answers to the exam questions that are published on the internet."*

T17: *"It is not ethical, but some videos are made to look like they are watched but they are not. Unfortunately, we also encounter such situations. It would be better if Ministry of National Education took precautions. ... if precautions are taken by the authorities, there will be no problem of the person opening the video, going somewhere, coming back and continuing to watch it..."*

4.1.8. Findings regarding the difficulties encountered in the "Institutional" dimension

As a result of examining the difficulties encountered by teachers in in-service training programmes provided Ministry of National Education through distance education, 5 sub-themes belonging to the main theme 'Institutional' were reached. The sub-themes and frequency values are presented in Table 11.

Table 11.

Sub-Themes and Frequency Values of Problems Encountered in the "Institutional" Dimension

Sub-Themes	F
The certificates received at the end of the courses are not fairly reflected in the personal rights of the teacher.	11
Sufficient information is not provided about the objectives, content and evaluation of the courses before they start.	9
The in-service trainings organized are insufficient in terms of the 2023 Vision targets.	8
There are very few professional development programs carried out at the postgraduate level.	7
The number of courses organized in cooperation with universities and civil society organizations is not sufficient.	6

According to teachers' opinions, the certificates received at the end of the courses are not fairly reflected in the teachers' personal rights (seniority, salary, rewards, etc.). It is thought that teachers are not given sufficient information about the objectives, content and evaluation of the courses before the courses begin. The majority of the participants stated that the in-service trainings organized were insufficient in terms of the 2023 vision goals and that the decisions taken in the vision document were not implemented. It was stated that efforts should be made to put the decisions taken into practice. It was concluded that there were very few professional development programs carried out at the postgraduate level. In addition, teachers stated that the courses organized in cooperation with universities and non-governmental organizations were insufficient. Teachers' views on the Institutional dimension are as follows:

S2: "The trainings I received in my professional career do not contribute to a value such as salary, step advancement, or points. In addition, distance in-service trainings do not provide a title or competence. The certificates I received do not contribute to my becoming an expert teacher or in any other field. They do not provide horizontal or vertical expertise."

T10: "I had a lot of trouble accessing information about the courses, I did not know where to find it at the time, how to log in. I had a lot of trouble with how the trainings are given, when they will be, how I can apply, and I did a lot of research to learn. A guide can be prepared in advance and given to teachers or educators, or it can be published on EİN. So that you can read it in advance and get information. I think it would be great."

T16. "... As I said, it would definitely be useful if there were explanatory guides about the course I will take. I have not seen a guide. It would be great if they did something like this. With such a simple interface, I can click on the title of the course. Then you can read who gave it. For example, which trainer gives it or what kind of work has the person giving this course done in this field? Is he an academic, a teacher or a celebrity? How many years has he/she been working? How old is he/she? What will he/she contribute to me? If I am going to spend time on this, I should know what I will get in return for this time. I should definitely know what this course will contribute to me."

T17: Ministry of National Education is taking initiatives, especially in cooperation with universities and civil society organizations. We have not reached the vision of 2023 completely. We are not at the beginning either. In other words, the process is ongoing, especially in terms of reaching more teachers, the number of distance education courses to be held in cooperation with universities is insufficient. ..."

4.2. Findings regarding solution suggestions for development teachers' in-service training programs provided Ministry of National Education through distance education

As a result of the analysis obtained from the interviews, the solution suggestions of the teachers for the development of in-service training programs provided by Ministry of National Education through distance

education were examined and thematized. As a result of the findings, 8 themes and 38 sub-themes were obtained. The themes, number and percentages of sub-themes are presented in Table 12.

Table 12.

Theme, Sub-Theme Frequency and Percentage Values Regarding the Solution Suggestions of Teachers for the Development of In-Service Training Programs Provided by Ministry of National Education through Distance Education

Themes	The Number of Sub-Themes (f)	Percentage
1. Pedagogical	9	24
2. Technological	3	8
3. Interface design	4	10
4. Evaluation	6	16
5. Management,	4	10
6. Resource Support	2	6
7. Ethical	6	16
8. Institutional	4	10
Toplam	38	100

4.2.1. Findings regarding solution proposals for the "Pedagogy" dimension

As a result of examining the solution suggestions of teachers for the development of in-service training programs provided by Ministry of National Education through distance education, 9 sub-themes belonging to the main theme of 'Pedagogy' were obtained. The sub-themes and frequency values obtained are presented in Table 13.

Table 13.

Sub-Theme and Frequency Values of Teachers' Suggestions Regarding the "Pedagogy" Dimension

Sub-Themes	f
There should be interaction between the trainer and the trainees in the courses.	12
Courses should include activities aimed at developing high-level skills such as application, analysis, synthesis, etc.	12
Courses should include activities where trainees can be active.	9
Various learning methods and techniques should be used in the courses.	5
Course content should be enriched.	3
Trainees should be motivated in the courses.	3
Courses should be organized in a way that is geared towards the professional life of teachers.	3
Courses should be given by experts in the field.	3
Courses should be conducted in a planned and programmed manner.	2

According to the opinions of the teachers, distance education courses should not be given only through presentations. There should be interaction between the trainer and the trainees, mutual dialogs should be created, and activities in which the trainees can be active should be included. In the courses, care should be taken to include activities aimed at developing high-level skills such as application, analysis, synthesis, etc. by using various learning methods and techniques. In addition, the teachers stated that the content of the courses given through distance education should be enriched and focused on topics that teachers can use in their professional lives, and teachers should be also motivated both by presenting an interesting course content in the courses and by organizing the courses in a way that contributes to teachers' personal rights. Apart from these, teachers think that organizing the courses in a systematic way and giving them by experts in their field will make the courses more efficient and in this way the courses will serve their purpose.

T1: "...In all the trainings I attended, first of all, the direct expression method was used or the oral expression method was used. There was a one-way transfer. ... I mean, personally, I find these methods and techniques a bit insufficient because they are not very effective. In other words, I think it should be more

interactive in order to ensure the continuation of the course and to ensure that the participants participate more effectively. I definitely find it insufficient. Apart from that, I would suggest the following. I think more effective, more permanent learning can be realized if it turns into more interactive, more mutual question and answer. ...”

T7: “In in-service training activities conducted through distance education, as I have just stated, information remains at the level of knowledge and comprehension. Distance education is incomplete in terms of developing high-level skills such as analysis, synthesis, problem solving and critical thinking. Regarding this issue, I think that distance education organized by Ministry of National Education should use more methods and techniques to develop higher level skills... There are many methods and techniques. For example, there are six-hat thinking technique, fishbone, branched tree techniques that we can use for problem solving. These techniques can be utilized....”

T6: “First of all, higher level skills need to be applicable, they need to be active. It needs to be social. In other words, it should give the opportunity to work together. Instant feedback, instant correction, interaction is needed to solve a certain problem. ...”

T10: “... I think that our motivation is low in terms of motivation, partly for the trainers and partly for the trainees, both in terms of teaching and learning, and this motivation should be increased. Ministry of National Education will motivate teachers both internally and externally. ... There can be awards, competitions or projects to encourage the trainees. Any project with a foreign connection can be prepared. ...

4.2.2. Findings regarding solution proposals for the "Technology" dimension

As a result of examining the solution suggestions of the teachers for the development of in-service training programs provided Ministry of National Education through distance education, 3 sub-themes belonging to the main theme of 'Technology' were obtained. The sub-themes and frequency values are presented in Table 14.

Table 14.

Sub-Themes and Frequency Values of Teachers' Suggestions Regarding the "Technology" Dimension

Sub-Themes	f
The learning management system (Education Information Network) in courses should be made compatible with all devices and browsers.	8
The technological infrastructure of the learning management system where the courses are offered should be strengthened.	7
Courses where trainees experience technological disruptions should be compensated on a different date.	3

According to the teachers' opinions, the learning management system (EIN) can be made compatible with all devices and browsers in order to be able to connect to every device and browser without any problem. The technological infrastructure of the learning management system in which the courses are offered should be strengthened so that teachers do not experience technical problems such as freezing of videos, inability to connect to the learning management system, and system crashes in the courses they attend through distance education. In addition, in case of technological problems, courses should be made up at a later date.

T6:” ... When I received a training, I was watching the first video for example. I finished it and then I need to move on to the second one. You may need to sit down and play it again and then open it when it starts. So there are some glitches in the system. ... For example, I try to enter from my phone or I try to enter from my tablet. In terms of the trainings, for example, I was having problems during the transition. ... I complete the training from time to time, for example at home on the tablet. From time to time, I cannot open it from the computer. I can look at it on the phone when necessary. For example, I could not skip the video I watched in the last training on the phone. I mean, because the green check mark did not come. Start again from the beginning. Start again from the beginning. Technical problems can occur in this way, teacher. I think the system should be made compatible with all devices or browsers ...”

T5: “*Technical problems are also a serious problem. In this sense, very serious measures need to be taken for these technical problems. Because, there are issues related to this technological infrastructure such as the use of powerful servers and strong internet connections. In this sense, these may be the suggestions.*”

T4: “*I came across maintenance and repair a few times. I even left the exam for the last day. Then they extended the time because of maintenance and repair. That's why I didn't have any problems after that. You know, the time was extended. I think such things can happen as long as there is no victimization. The duration of the course can be extended or it can be possible to take the same course on another date. ...*”

4.2.3. Findings regarding solution proposals for the "Interface" dimension

As a result of examining the solution suggestions of the teachers for the development of in-service training programs provided Ministry of National Education through distance education, 4 sub-themes belonging to the main theme of 'Interface' were obtained. The sub-themes and frequency values are presented in Table 15.

Table 15.

Sub-Theme and Frequency Values of Teachers' Suggestions Regarding the "Interface" Dimension

Sub-Themes	f
A single website should be created where in-service training activities are carried out	9
A user guide should be created regarding the interface in the courses	6
Seminars should be given to the trainees about the communication platforms where the courses are given	6
The language of the interface in the courses should be Turkish	4

According to teachers' views, the creation of a single website or platform where in-service courses are conducted will facilitate the more systematic conduct of in-service training. In addition, a user guide should be created for the interface so that teachers in the platforms can use the learning management system more easily, and the language of the interface should be Turkish. In addition, providing a guide or explanatory documents explaining the use of the communication platforms where the courses are given to the trainees before the courses begin is of great importance for the teachers to complete the course without any problems. Teacher opinions on the “Interface” theme are as follows

T2: “*There can be a separate web page only for teachers' in-service trainings. Ministry of National Education has such a page for surveys. There can be a separate website only for in-service training. ... It would be better to have a separate web page. I think it would be easier to access if there was a page like in-service.meb.gov.tr. ...*”

T10: “*... When I started my career, I was very interested in in-service trainings. I was saying I will go to this and that. But after a while, there is a decrease in motivation and boredom. But if there was a separate platform where only in-service trainings were given, you could easily get the training you want there.*”

T6: “*Since we usually see the information after the course starts, the information should be given before. I mean, this management system is used when we start the course. ... we should be given such satisfactory information about that course beforehand. In which management system will the course be organized? Which assessment tools will be used? How will we access the platform, the course? ...*”

4.2.4. Findings regarding solution proposals for the "Evaluation" dimension

As a result of examining the solution suggestions of teachers for the development of in-service training programs provided by Ministry of National Education through distance education, 6 sub-themes belonging to the main theme of 'Evaluation' were obtained. The sub-themes and frequency values obtained are presented in Table 16.

Table 16.

Sub-Theme and Frequency Values of Teachers' Suggestions Regarding the "Evaluation" Dimension

Sub-Themes	f
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Measurement tools should be diversified to measure high-level skills in courses	11
Open-ended questions should be included in courses	5
Interactive exams should be included in courses depending on the learning management system	5
Measurement tools used in courses should be diversified according to learning methods	5
A “pre-test” should be conducted at the beginning of the courses and a “post-test” should be conducted at the end	5
Self-assessment tools should be used in courses	1

According to teachers' opinions, some problems have emerged during the evaluation phase of the courses. Regarding these problems, teachers have suggested diversifying the measurement tools to measure high-level skills in the courses, asking open-ended questions in the courses, including interactive exams in the courses depending on the learning management system, and diversifying the measurement tools used in the courses according to the learning methods. In addition, it is seen that conducting a “pre-test” at the beginning and a “post-test” at the end of each course is important for teachers to see the initial and final level of the teacher. Finally, it is thought that using self-assessment tools in the courses will be an alternative assessment for teachers to evaluate themselves. Some of the teachers' thoughts on this issue are as follows:

T1: “... You may be asked to produce a product related to the subject after the training. You may be asked to provide training to your teacher friends in your own school or prepare a report about the training you received after two or three weeks. It is also easy to present and evaluate the report. In other words, it should be an open-ended evaluation instead of multiple choice, where interaction with the teacher is possible.”

T2: “... Evaluation depends on the quality and characteristics of the education. However, I think that the evaluation of storytelling education cannot be just a test. Evaluation is sufficient in courses on computer skills. However; if we could receive training by talking to the instructor live, then other evaluations could be used and would be better. I would like to finish the education by writing a project in the "Project Consultancy" course. Tests alone may be insufficient to evaluate high-level skills, but tests are sufficient for skills such as knowledge and comprehension.”

T6: “... It needs to be self-assessment, we need to prepare a project. It is not enough to just give us a test about education. I mean, the questions there can be accessed on the internet in any way. In other words, the purpose is not just a test. If we are educating ourselves, self-assessment forms, surveys where people evaluate themselves, a project, it definitely needs to be something concrete. I think that maybe we have served high-level learning with our own words, that is, we can contribute to evaluating ourselves with self-assessment...”

4.2.5. Findings regarding solution proposals for the " Management," dimension

As a result of examining the solution suggestions of teachers for the development of in-service training programs provided by Ministry of National Education through distance education, 4 sub-themes belonging to the main theme of 'Administrative' were created. The sub-themes and frequency values obtained are presented in Table 17.

Table 17.

Sub-Theme and Frequency Values of Teachers' Suggestions Regarding the " Management," Dimension

Sub-Themes	f
Teachers should be informed in advance about when and on which platform the courses will be held	11
Courses should be organized according to the needs of teachers	7
Distance in-service training activities should be diversified	5

According to the teachers' views, teachers should be informed in advance about when and on which platform the courses will be held, and a guide should be published for teachers before the courses start, regarding the objectives, content and evaluation of the activity. In addition, the needs of teachers should be taken into consideration when organizing courses, and Ministry of National Education should create a richer course pool that will contribute to the personal development of teachers and develop their professional and field knowledge. Some of the teachers' thoughts on this issue are as follows:

T7: ‘... Especially before the courses start, it is stated to teachers which management system the course will be given through. However; in order to see the announcements of these courses, it is necessary to log in to Ministry of National Education Information Systems regularly. In this regard, I think that Ministry of National Education should send a text message to each teacher about which course will be given when and through which management system. Because many teachers do not have information about when, how and where the course will be given. Therefore, I think that teachers should be informed about these courses and which management system they will be given through as text messages.’

T15: “... Distance in-service training activities here are not opened according to needs. In other words, they are not courses opened by teachers entering that portal and conducting a needs analysis. In other words, there are standard courses opened by Ministry of National Education. ... For example, I do not think that a course such as conscious and safe use of the internet training is opened according to the needs of teachers. Teachers' needs should be taken into consideration when planning courses...”

T8: “I think that the number of courses has increased, especially in the recent period, with the efforts of Ministry of National Education. ... However; I think that it can be diversified and increased a little more. ... I think that instead of the same trainings or trainings that focus on the same point all the time, various trainings that will contribute to the self-development of the teacher should be organized...”

4.2.6. Findings regarding solution proposals for the "Resource Support" dimension

As a result of examining the solution suggestions of teachers for the development of in-service training programs provided by Ministry of National Education through distance education, 2 sub-themes belonging to the main theme of ‘Resource Support’ were obtained. The sub-themes and frequency values obtained are presented in Table 18.

Table 18.

Sub-Theme and Frequency Values of Teachers' Suggestions Regarding the "Resource Support" Dimension

Sub-Themes	f
A 7/24 live support line should be established to solve the problems that may arise in the courses	10
A document describing the common problems encountered in the courses and the solutions to these problems should be created.	3

According to the teachers, a 24-hour live support line is vital for resolving any problems that may occur in the courses, and creating a document explaining the problems frequently encountered in the courses and the ways to solve these problems, so that the courses can be completed efficiently. Teachers' opinions on this issue are as follows:

T11: “I only had a very short problem with my exam. Then it was solved by itself. I have never used it. I would definitely like to have live support like this for that. Because when you type the question in the help section and the answer comes to you automatically from the computer, it is good. However; you do not get a complete answer to the question you asked. That is why live support would be much better.”

T2: “There could be an offline support guide for remote in-service training. It could be a guide that explains where and how to enter, and includes the activities. I think a guide could be created that includes frequently encountered problems and solutions...”

4.2.7. Findings regarding solution proposals for the "Ethical" dimension

As a result of examining the solution suggestions of teachers for the development of in-service training programs provided by Ministry of National Education through distance education, 6 sub-themes belonging to the theme of ‘Ethics’ were obtained. The sub-themes and frequency values obtained are presented in Table 19.

Table 19.

Sub-Themes and Frequency Values of Teachers' Suggestions Regarding the "Ethical" Dimension

Sub-Themes	f
In-service training courses should be given outside of working hours	13
A guide including copyright and ethical rules should be published for the courses	9
Courses should be held during the weeks when Professional Development studies are carried out (seminar period)	7
The person's consent should be obtained for the collection of personal data.	5
Different exam questions should be asked in each course	2
The duration of the videos in the courses should be shortened	2

According to teachers' views, there are important issues to be considered in terms of ethics. First of all, the participants think that in-service training courses should be given out of working hours when teachers do not have classes. They believe that it would be enlightening for teachers to publish a guide that includes copyright and ethical rules related to the courses they take. In addition, teachers suggested that the courses should be held during the weeks of Professional Development Programs (seminar period). Participants consider it important to obtain consent for collecting personal data in online courses. They consider it important that different exam questions should be asked in each course so that the certificates received after the courses can be earned. Finally, teachers think that it would be ethically correct to shorten the duration of the videos in the courses and to ensure interactive participation of teachers in order to make the courses more efficient. Teachers' opinions on this issue are as follows:

T5: "... If I were to speak for myself, evening hours are the most suitable. Because we go to school at normal times anyway. We take care of our work after school. I guess there could be training outside of school at suitable times when the time is available..."

T7: "Now, in the in-service training courses organized by Ministry of National Education, the content of the in-service training can be accessed at the end of the course. Each teacher can download this content to their own computer and use it. However, no explanation is made regarding the duplication and use of this content by teachers. I think this situation may create problems for teachers regarding the copyright of the content. I think Ministry of National Education should leave an information note regarding how these shares made with teachers will be used."

T8: "... As for the duration, I think that the duration of the courses and the lessons should be kept short. Some courses can be particularly long and this causes the teacher or rather the participant's attention to be distracted. I am in favor of them being given in a shorter period of time but spread out over two or three days rather than just one day."

4.2.8. Findings related to solution suggestions for the "institutional" dimension

As a result of examining the solution suggestions of teachers for the development of in-service training programs provided by Ministry of National Education through distance education, five sub-themes belonging to the main theme of 'Institutional' were created. The sub-themes and frequency values obtained are presented in Table 20.

Table 20.

Sub-themes and Frequency Values of Teacher Suggestions for the "Institutional" Dimension

Sub-Themes	F
Before the courses start, a guide should be published about the objectives, content and evaluations of the activity	10
The certificates received at the end of the courses should be reflected in the teacher's personal rights (salary, seniority, service points) in a fair manner	10
The number of professional development courses conducted in cooperation with universities and civil society organizations should be increased	6
The Ministry of National Education should support professional development programs at the postgraduate level	5
A unit should be established in universities for in-service training activities	2

Teachers think that the certificates received at the end of the courses should be fairly reflected in the teachers' personal rights (salary, seniority, service points) and that Ministry of National Education should implement these studies to motivate teachers. According to teachers' views, the number of professional development courses conducted in cooperation with universities and civil society organizations should be increased and Ministry of National Education should support postgraduate professional development programs conducted in cooperation with universities. In addition, teachers believe that the establishment of an institute or a unit within universities so that Ministry of National Education can conduct in-service training activities more comprehensively and benefit from the academic staff in universities will make in-service training courses more efficient and effective. Teachers' opinions on this issue are as follows:

T15: "... There should be a guidebook for courses. The date and time of each course should be clear. I was particularly aggrieved by the fact that the hours were not clear in face-to-face or live training. There should be a guidebook; the content of the activities, their purpose, gains, work to be done, evaluation work, dates, and hours should be clearly explained. I also think there should be a distance in-service training guideline. Information such as which courses will be opened this year, where the courses will be held, needs analysis, dates, and introduction of the platforms should be written..

T9: "... Certificates of achievement and certificates that teachers receive as a result of professional development should be given plus points in the promotion of teachers to specialist and head teachers. Likewise, I think it should be a plus value in administrative appointments."

T6: "National Education has distance in-service training and graduate studies at universities. But it would be much better if National Education could do it itself and open it to teachers. ... Those who want to improve themselves should be able to access all kinds of information from anywhere, regardless of the city. I think that people should also have access to a master's degree somehow, and this will be thanks to universities. Ministry of National Education should increase cooperation with such universities."

T13: "... We should definitely benefit from the academic staff of universities in the courses to improve ourselves. We encountered academics who will motivate us and keep our motivation high from the education of the academic staff who attended the courses. For this reason, I think the General Directorate of Teacher Development and Training should increase its cooperation with universities."

5. Discussion, Conclusion and Suggestions

In this study, it was determined that teachers encountered some difficulties in the 'Pedagogical' sub-dimension through in-depth interviews with teachers. According to the views of the teachers participating in the study, it was revealed that only the presentation method was used in in-service training courses conducted via distance education. The participants stated that the in-service training courses conducted via distance education only through presentation caused the training to be inefficient and teachers' motivation to decrease. According to teachers' views, there is no interaction between the trainer and the trainees in in-service training courses conducted via distance education, and the trainees are in a passive position in in-service training courses. In addition, various active learning techniques and methods that will include teachers in learning activities are not included. In addition, according to the findings obtained, there are trainers who are not competent in their fields of expertise and who are inadequate in using the distance learning management system in in-service training courses conducted via distance education. In addition, it was concluded that there were no studies that would increase the motivation of the trainees participating in the courses in in-service training courses conducted via distance education. Finally, the teachers stated that the courses that Ministry of National Education should conduct in terms of application or face-to-face were also conducted via distance education.

Özavcı (2015, p. 83) and Özavcı and Çelikten (2017, p. 69) have similar findings to our research, stating that teachers are satisfied with the e-in-service training applications carried out by Ministry of National Education in Turkey, but they encounter some problems in the courses. Özavcı (2015, p. 79) reached the conclusion that the courses are one-way and that the courses to be organized from now on should be two-way and the trainer and the trainee should interact. They considered the in-service training courses carried out through distance education as ineffective because the teachers are in the passive participant role. In addition, Özavcı (2015, p. 85) revealed that teachers expect the distance in-service trainings to be carried

out by qualified and competent trainers. Kazami and Asrafi (2014, p. 1074) and Safi (2015, p. 20) support the results of this research by stating that the in-service trainings of teachers should be given by professional trainers.

During the interviews, it was stated that the participants encountered some difficulties in terms of technology. The teachers who participated in the study stated that they had internet connection problems in the in-service training courses conducted via distance education. In addition, they supported that they encountered problems in transitions between videos in the courses, and that the EİT infrastructure where the in-service training courses were provided was inadequate. In addition, many of the teachers stated that they could not access the learning management system from all browsers and devices in the in-service training courses conducted via distance education, and that this situation made it difficult to take the courses at the desired times. Çalımfidan (2007, p. 84) obtained results that support the current research findings in his study. One of the important problems that teachers encounter in distance education in our country is the inadequacy of the technical infrastructure. Generally, problems may occur because distance education platforms based on the internet are supported by infrastructure from abroad. Therefore, a wide internet connection is required for teachers not to experience problems in education. Kaban (2013, p. 124) emphasized that the technological infrastructure of distance education programs should be managed and supported effectively. Course contents and applications should be prepared within the existing internet infrastructure and technological possibilities. Because in order for a well-designed course to be carried out effectively, the technological infrastructure of the distance education system should be strong, e-learning contents should be transferred to individuals without any problems through learning management systems. So, educators and trainees should be able to easily access this system where technological integration is provided (Khan, 2007, pp. 2-7).

The findings revealed that teachers encountered some difficulties in the interface dimension of the courses. Most of the teachers who participated in the research stated that the interfaces of the learning management systems in the in-service training courses provided via distance education were complex and that they could not easily access the courses. The fact that the in-service training provided by Ministry of National Education via distance education is provided in a sub-module of EBA, which is the system through which distance education is provided to students, causes problems. In addition, the inadequacy of information on the interface usage of other platforms where in-service training courses are provided through distance education other than EBA and the fact that the language of these platforms is in a foreign language are seen as other problems encountered by teachers. Arslan and Şahin (2013, p. 38), Nasser and Abouchedid (2010, 78) and Tekin, (2020, p. 32) obtained findings that are consistent with our research results. Tekin, (2020, p. 32) found that teachers were satisfied with distance in-service training courses. He stated the duration of in-service training using the distance education method was short and that learning management systems should be made compatible with all access tools such as tablets, smartphones and computers in order to access the content.

The majority of the teachers participating in the study stated that they encountered some difficulties in implementing measurement and evaluation activities in in-service training courses provided by Ministry of National Education via distance education. According to the teachers participating in the study, measurement and evaluation activities in in-service training courses provided via distance education remained only at the level of knowledge and no practice exams were included. The fact that practice exams were not included in the courses revealed that the quality of the course was reduced. On the other hand, although the quantitative findings indicated that the teachers were given a pre-test before the courses and a post-test after the courses were completed, they stated in the interviews that pre-tests and post-tests were not administered in some courses. The majority of the teachers who participated in the study conducted by Çalımfidan (2007, p. 84) stated that they liked the distance in-service training courses and, they would like to participate in the in-service training courses to be organized with the distance education method again in the future. However; the participants stated that the lack of feedback in the evaluation dimension of the course they attended was a difficulty they encountered in the course. Çalımfidan (2007, p. 86) suggested that instant feedback should be provided, midterm exams and controls should be made to motivate the

trainees. In addition, the important feature of face-to-face education is that feedback should be given. In this way, the mistakes and errors of the students can be corrected. For this reason, especially in distance education, systems where there is no interaction should be supported with environments such as chat, e-mail and forum where healthy communication can be made. Özavcı (2015, p. 85) stated that teachers can be evaluated in the e-courses to be organized and feedback can be given. In this way, supportive activities can be carried out by revealing the strengths and weaknesses of the teachers. Interaction can be provided between the trainees and the participants. Çalimfidan (2007, pp. 85-86) and Özavcı (2015, p. 79) obtained findings that are consistent with the results of our research

As a result of the interviews conducted with the teachers, it is observed that they encounter some difficulties in the 'Administrative' sub-dimension of the in-service training courses organized by the Ministry of National Education via distance education. According to the teachers, the opinions of the teachers are not taken into account when planning the in-service training courses to be organized via distance education, they are not informed about the planned in-service training courses via distance education, and sufficient information is not provided about when and on which platform the in-service training courses to be organized via distance education will be held. In addition, most of the teachers who participated in the study stated that the Ministry of National Education required them to attend in-service training courses via distance education. The 'administrative' dimension refers to the design of the learning environment and the distribution of information (Khan, 2007, pp. 2-7). In this context, it is important to prepare distance in-service training courses according to the needs of teachers, to introduce them to teachers and to use the learning management system effectively. Therefore, Ministry of National Education is responsible for the preparation of the learning management system, the establishment, announcement and maintenance of the course. It should regularly update the content of the courses and e-learning materials. Courses that meet the interests and needs of teachers should be organized.

The qualitative findings show that teachers encounter some difficulties in the 'Resource Support' dimension of in-service training courses organized via distance education. According to teachers, technical support is insufficient to solve problems experienced in in-service training courses organized via distance education, and there is no expert they can reach online or offline to solve problems experienced in the courses. When Taşlıbeyaz (2014, p. 156) examined teachers' views on the limitations of distance in-service training, he found that lack of interaction and technical problems were prominent. Participants complained about the lack of a technical staff or authorized persons to whom they could apply for solutions to technical problems they experienced. For this reason, Erdoğan et al. (2017, p. 536) revealed that Ministry of National Education should develop a technical support policy for solving technical problems.

According to the findings obtained in the 'Ethics' dimension, there is no guidebook explaining the copyrights of the documents shared in in-service training courses to be conducted via distance education. Information requiring confidentiality is requested in in-service training courses organized online. In addition, it is thought that teachers unfairly receive participation certificates by obtaining the questions and answers of the completion exams conducted in in-service training courses to be conducted via distance education from various published websites and pretending that the trainees are being watched by the trainees. Taşlıbeyaz (2014, p. 155), who reached similar results, stated that teachers generally find distance in-service trainings successful and that more efficient results will be obtained when the courses are designed according to the principles of adult education. Teachers can be ensured to participate in the course continuously by ensuring that the participants interact with the trainers or the system. On the other hand, teachers' awareness of distance education can be increased and their self-control can be developed (Barış and Çankaya, 2016, p. 409). Teachers' own development can be controlled with self-assessment studies. Thus, it can be stated that teachers' unfair participation or achievement certificates can be prevented by ensuring their high-level participation in the courses.

According to the findings obtained in the 'Institutional' sub-dimension, teachers are not given sufficient information about the aims, content, learning methods and techniques, learning outcomes and evaluation before the courses begin. Teachers think that the certificates received at the end of the courses are not reflected in teachers' personal rights in an equitable way. In addition to these challenges, there are very

few postgraduate professional development programs. Moreover, the number of courses organized in cooperation with universities and non-governmental organizations has not reached a sufficient number. Finally, according to the statements of the teachers participating in the study, in-service trainings organized are insufficient in terms of 2023 vision goals (Horzum, 2019). When the literature is reviewed, it is seen that teachers are satisfied with the in-service courses organized through distance education, but they encounter some problems (Horzum et al. 2012, p. 69; Taşlıbeyaz et al. p. 156, 2014; Cesur & Yelken, 2015; Kaleci, 2018, p. 275). Horzum et al. 2012; p. 70), teachers' opinions should be positive in order to overcome the perceived difficulties in the delivery of in-service courses given through distance education in order to facilitate situations such as time and space. For this purpose, informative and motivating seminars can be given in advance about in-service training courses given through distance education. According to Süngü (2012, p. 80), teachers should be informed about the in-service training courses at the beginning of the semester. According to Cesur and Yelken (2015, p. 686), visual materials about the course to be organized on the education platform and the contents of the course can be published. These results coincide with the finding that it is necessary for Ministry Of National Education to publish a guideline on the objectives, content, learning methods to be used and evaluations to be made in the in-service training courses to be organized and present it to teachers before the course.

On the other hand, Kaleci (2018, p. 276) and Avcı (2018, p. 68) emphasized the need to cooperate with universities and other relevant institutions in order to ensure teachers' participation in the course and increase their interest. In addition, they suggested that academics working at universities can be utilized as trainers. According to Manduku et al. (2017, p. 200), in-service training programs can be carried out by academics who are competent in their fields and will make learning effective with school-based programs of universities. Thus, it will contribute to the transformation of society through the production of new knowledge and skills by training qualified teachers. In this context, the implementation of the 2023 Vision will also be realized to a significant extent.

In this research in which teachers' opinions were sought, the research was evaluated as a whole and the following recommendations were listed for the Ministry of National Education regarding the development of distance in-service training programs for teachers:

Solution suggestions for the “pedagogical” dimension:

- Ministry of National Education should organize in-service training courses to be held via distance education in a way that there will be interaction between the trainer and the trainees. In this case, the number of participants can be limited and more space can be given to synchronous courses.
- In-service training courses to be held via distance education should include various activities aimed at developing high-level skills such as application, analysis, synthesis, etc.
- In-service training courses to be held via distance education should include activities where trainees can be active.
- Ministry of National Education should enrich the content of in-service training courses to be held via distance education.
- Ministry of National Education should include studies to motivate teachers in in-service training courses to be held via distance education. In this context, both interesting content should be presented to teachers in the courses and the courses should be organized in a way that will contribute to the personal rights of teachers.
- In-service training courses to be conducted via distance education should be provided by experts who are both experts in their fields and who can effectively use the technological tools and equipment in the distance education system.
- Ministry of National Education should organize in-service training courses to be held via distance education in a way that is oriented towards the professional life of teachers.
- In-service training courses to be conducted via distance education should be planned more professionally according to the demands and needs of teachers in all branches.

Solution suggestions for the technology dimension:

- In order for in-service training courses to be conducted via distance education to be carried out smoothly, learning management systems should be made compatible with all devices and browsers.
- The technological infrastructure of the learning management system where remote in-service courses are offered should be strengthened.
- Remote in-service training courses that are not conducted due to technological disruptions should be compensated for on a different date.

Solution suggestions for the interface dimension:

- A single website or platform should be created for in-service courses to be conducted in a more systematic manner.
- Ministry of National Education should create a user guide for the interfaces of the learning management systems where in-service training courses to be conducted via distance education will be conducted.
- Seminars should be given on all communication platforms where training will be provided so that trainees can easily access the courses.
- The language of the interface in the courses should be Turkish so that teachers can access the courses without any problems.

Solution suggestions for the evaluation dimension:

- Various measurement tools should be used to measure high-level skills in courses to be organized via distance education.
- Open-ended questions that measure high-level skills of teachers such as interpretation, criticism, analysis, synthesis, evaluation, etc. should be included in courses to be organized via distance education.
- Interactive exams should be included in courses to be organized via distance education, depending on the learning management system that will keep teachers active.
- Measurement tools should be diversified according to learning methods in courses to be organized via distance education
- A “pre-test” should be conducted at the beginning and a “post-test” should be conducted at the end of courses to be organized via distance education so that teachers can see the gains they have achieved in the courses.
- Using self-assessment tools in courses to be organized via distance education can be an alternative evaluation tool for teachers to evaluate themselves.

Solution suggestions for the administrative dimension

- Teachers should be informed in advance about when and from which platform the courses to be organized via distance education will be held.
- Courses to be organized via distance education should be organized according to the needs of teachers. The needs of general culture and vocational course teachers should be taken into consideration separately.
- In-service training activities via distance education should be diversified to meet the needs of all teachers.
- Ministry of National Education should create a richer course pool that will contribute to the personal development of teachers and develop their professional and field knowledge.

Solution suggestions for the resource dimension:

- A 24/7 live support line should be established to solve problems that may occur in courses to be organized via distance education.
- A document explaining the problems frequently encountered in courses to be organized via distance education and the solutions to these problems should be created.

Solution suggestions for the ethical dimension:

- In-service training courses to be organized via distance education should be given outside of working hours.
- In-service training courses to be organized via distance education Professional Development. In online courses, the person's consent must be obtained for the collection of personal data. Personal data must be stored securely.
- A guide including copyrights and ethical rules should be published for in-service training courses to be organized via distance education.
- In the same in-service training courses to be organized in different months through distance education, different questions should be asked in the end-of-course completion exams.
- In the same in-service training courses to be organized in different months through distance education, the duration of the videos should be shortened and care should be taken not to exceed 30 minutes.

Solution suggestions for the institutional dimension:

- Before the in-service training courses to be organized through distance education begin, a guide should be published regarding the objectives, content, learning methods to be used, and evaluations to be made of the activity.
- The certificates received at the end of the in-service training courses should be fairly reflected in the teacher's personal rights (salary, seniority, service points).
- The number of professional development courses organized in cooperation with universities and civil society organizations should be increased.
- Ministry of National Education should support postgraduate professional development programs for teachers' personal and professional development.
- Ministry of National Education should establish an in-service training unit in universities for in-service training activities, ensuring that teachers benefit from both academic staff and university facilities.

When the findings obtained from the research are evaluated, it is determined that teachers have encountered some difficulties in the in-service courses they have received through distance education so far. On the other hand, teachers suggested solutions to the problems they encountered. In this context, the Turkish Ministry of National Education should take into account the opinions of the teachers in order to improve the distance in-service training courses to be organized through distance education in a systematic way. By considering the expectations of teachers working in Turkish Ministry of National Education in in-service training courses through distance education, examining the problems encountered in practice and taking into account the solution suggestions of teachers for the improvement of the system, it can systematically carry out development studies. In this development process, in order to establish the standards of the in-service training program to be conducted through distance education, it will facilitate the authorities to consider each stage of the e-learning process (planning, design, development, evaluation, transfer and review) and to examine the eight dimensions of e-learning (Technology, Interface, Evaluation, Administrative, Resource Support; Ethics, Institutional) These results will contribute to the effective use of the distance education system, which is seen as an innovative and sustainable education model for teachers' professional development. Thus, distance education activities that teachers receive will be more efficient and in-service training will achieve its purpose.

In conclusion, considering the developments in technology and education, in-service trainings will be provided by Ministry of National Education through distance education in the future. It is obvious that the distance learning system will make great contributions to teachers. In order for teachers to use distance learning systems more effectively and efficiently, it is vital that they are developed according to teachers' suggestions and expectations are met. When the difficulties encountered in supporting distance learning systems and platforms with contemporary materials and up-to-date pedagogies are eliminated and improvement studies are carried out, the quality of distance in-service trainings will increase and become more efficient for teachers.

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