e-ISSN: 1248-2624

Journal of Qualitative Research in Education

2025 / ISSUE:41

ENAD ONLINE

ANI yayıncılık Publishing
www.enadonline.com

PUBLISHING MANAGER / *Sahibi ve Sorumlu Yazi Isleri Muduru*
In the name of Ani Publishing Education and Consultancy Advertisement Stationary Industry Trade Co. Ltd.
Ani Yayincilik Egitim ve Danismanlik Reklam Kirtasiye Sanayi Ticaret Ltd. Sti. adina
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Tel: +90 312 425 81 50 pbx Fax: +90 312 425 81 11

Printing Date / *Basim Tarihi:* 31 Junuary 2025 / 31 Ocak 2025
Broadcast Type / *Yayin Turu:* Local Broadcast / *Yerel Sureli Yayin*
Cover Design / *Kapak Tasarimi:* Kezban KILICOGLU
Composition / *Dizgi*: Kezban KILICOGLU
2025/ ISSUE: 41

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Journal of Qualitative Research in Education / JOQRE (e-ISSN: 1248-2624) is four times a year, peer-reviewed journal published by ANI Publishing.
Egitimde Nitel Arastirmalar Dergisi / ENAD (e-ISSN: 1248-2624) ANI Yayincilik tarafindan yilda dort kez yayimlanan hakemli bir dergidir.

ENAD – Dizinlenme / JOQRE is indexed and abstracted in,
- ✓ ESCI - Emerging Sources Citation Index
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Journal of Qualitative Research in Education
Eğitimde Nitel Araştırmalar Dergisi

Teachers' Perspectives on the Science Curriculum According to Tyler's Program Evaluation Approach

Ahmet Taşdere*, İclal Ayvar**, Cengiz Tüysüz***

To cite this article:

Taşdere, A., Ayvar, İ, Tüysüz, C., (2025). Teachers' Perspectives on the Science Curriculum According to Tyler's Program Evaluation Approach. *Journal of Qualitative Research in Education*, 1-31. Doi: 10.14689/enad.41.1886

Abstract

This research aimed to evaluate the 6th-grade science curriculum (SC) based on Tyler's objective-based evaluation model according to teacher opinions. The study was designed as basic qualitative research, and 30 science teachers (ST) working in schools affiliated to the Ministry of National Education (MoNE) and determined according to the convenience sampling method participated in the study. The data were collected through a semi-structured interview form consisting of open-ended questions and subjected to descriptive data analysis. According to the findings, within the scope of the objective dimension of Tyler's model, teachers think that the SC outcomes are clear and understandable and contribute to students becoming science literate individuals. They expressed partially differentiated opinions about the relationship of SC with other curricula and the appropriateness of the outcomes to the level of the students. In the learning experiences dimension, the majority of teachers think that inquiry-based and student-centered teaching methods and techniques are adopted in the SC. On the other hand, they have partially differentiated opinions about the use of these methods and techniques in the lessons and their level of achievement of the outcomes. In the evaluation dimension, teachers presented differentiated views on whether the measurement and evaluation approach in the SC provides the quality of probe-assessment, the aspect of supporting learning, and whether it provides opportunities for process evaluations. Considering these findings, suggestions were presented for teachers and new SC studies.

Keywords: Science Curriculum, Tyler's Program Evaluation Model, Science Teacher

About the Article

Submitted Date: Nov. 23, 2023
Revised Date: Jul. 05,2024
Accepted Date: Jan. 28, 2025

Article Type:
Review

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Introduction

The innovative skills and contents that curricula aim to provide are very important for increasing the educational qualifications of countries and societies. Because the manpower with the skills and competencies that will develop societies in every field in the future will consist of individuals trained according to these curricula. Therefore, by examining the curricula of countries, positive or negative inferences can be made about the quality of education in that country. Erden (1996) stated that the main goal of this process is to increase the quality of education and emphasized the importance of curriculum development and evaluation. Thus, with curriculum evaluation studies based on effective scientific research, curricula can be created as a guide resource for the 21st-century skills aimed to be gained by students (Ahn, 2018; Aslan & Sağlam, 2017; Ibeh, 2022).

Referring to the dynamic structure in the development and evaluation processes of curricula, Özdemir (2009) underscored the importance of this structure in determining the effectiveness and success of the implemented programs. Erdoğan (2019), on the other hand, emphasized that curriculum evaluation studies are conducted to identify deficiencies in educational processes and the measures that need to be taken, thereby potentially elevating the educational level of countries. Balıkçı et. al. (2021) note that, especially in the last 20 years, all disciplines have been influenced by this dynamic curriculum development/evaluation understanding. They stress that emerging technologies, contemporary learning theories, new-generation skills, competencies, and modes of thinking require the updating/renewal processes of curriculums.

Understanding the types, designs, ideologies, and philosophies of curriculum evaluations is crucial and necessary for teachers (Aygören & Er, 2018). It is of great importance to examine all dimensions (goal, content, educational situations/learning experiences, and assessment evaluation) comprehensively in order to identify any possible flaws and deficiencies of the programs. Elaborating on this matter, Ünal (2011) stated that a curriculum with poorly defined objectives/outcomes would fail to serve its purposes through its content and learning experiences, and the assessment tools within the program would not possess the appropriate qualities, which could have a negative impact on other dimensions of the program. Especially in the last 25 years, numerous curriculum evaluation studies have been conducted, and scientific data have been provided for the new curricula planned to be developed by presenting the advantages and disadvantages, positive and negative outputs, and deficiencies of the curriculums implemented in the past (Balıkçı et al., 2021; Ercan, 2007; Gedik, 2017; Karaman & Karaman, 2016).

One of the curricula that has undergone radical innovations and revisions is the Science Curriculum in Türkiye. Particularly, the sciences, which are directly related to many disciplines such as technology, engineering, informatics, art, etc., have been among the most active branches in terms of program innovations/updates due to rapid changes occurring in these disciplines and the influence of many new contemporary learning

theories/approaches. Değirmenci (2007), asserting that the early 2000s could be considered the onset of a new era for science curricula, whose fundamental vision is to educate individuals as scientifically literate regardless of individual differences, emphasized the importance of nurturing responsible and capable individuals who are aware of phenomena in the natural environment, can ask logical questions, collect data through observation and experiment, and analyse these data. This objective, which is directly articulated in the contemporary SC, has been incorporated with various terminologies that convey similar content, such as 'science and technology literacy' in the 2005 Science and Technology Curriculum and 'science literacy' in the 2013 and 2018 Science Curriculum (Ministry of National Education (MoNE), 2013; 2018). When evaluation studies specific to these curricula are examined according to the historical process, it is observed that studies were conducted for the 2005 science and technology course curriculum (Battal, 2008; Ercan, 2007), followed by the 2013 SC (Toraman & Alcı, 2013; Yıldırım & Güngör Akgün, 2015), and, albeit fewer, the 2018 SC (Balıkçı et al., 2021; Çevik, 2020; Gürdal, 2021).

Tyler's Objective-Based Program Evaluation Model and Science Curriculum

Demirel (2007), addressing the curriculum evaluation processes on a scientific foundation, emphasized the stages of data collection, analysis, and the interpretation and reporting of results. Depending on the diversity of these data collection processes, different program evaluation models have been identified in the literature. These are objective-based evaluation approaches, management-oriented evaluation approaches, customer-oriented evaluation approaches, expert-oriented evaluation approaches, and participant-oriented evaluation approaches (Fitzpatrick et al., 2010; Sönmez & Alacapınar, 2015; Uşun, 2016; Yüksel, 2010). Based on these specified models, Balıkçı et al. (2021) highlighted that there are few evaluation studies in the literature specifically related to the current SC, noting that researchers in these studies tended to collect data with superficial questions of similar nature. In one of these studies conducted with different models, Yıldırım (2018) evaluated the 5th-grade SC based on the context-input-process-product (CIPP) model according to teacher opinions. According to the results obtained, it was determined that the planning and predictions made for the SC have a moderate potential to meet the needs in practice. Similarly, in the study where Balıkçı et al. (2021) evaluated the 3rd-grade SC based on the CIPP model according to teacher opinions, the majority of teachers agreed that the achievements in the SC are appropriate for the students' interests, needs, and learning levels, and contribute to their development as scientifically literate individuals. However, a few teachers pointed out the lack of technological infrastructure and equipment in schools. In this study, a different model, Tyler's objective-based evaluation model, was used. This model is fundamentally about identifying educational objectives that need to be achieved. It is built/based on the determination of the extent to which the objectives set for the relevant instructional program are achieved as a result of its implementation (Tyler, 1981; cited by Aslan & Erden, 2018). When making decisions about the effectiveness of the program, the extent to which the objectives could be achieved is examined. If there are objectives that could not be reached, the learning experiences are scrutinized for reasons (Ahn, 2018; Chen

et al., 2005). The educational outcomes are compared with the objectives, and it is determined to what extent these objectives are reached. During this process, along with evaluation tools like tests, surveys, and school records, qualitative data collection tools can also be used (Kotluk & Yayla, 2016; Stufflebeam et al., 2014). In the literature, many program evaluation studies have been conducted for different branches based on this model. Among these studies, Tyler's objective-based evaluation model was adopted in the evaluation of mathematics curriculum (Aslan & Çakır, 2017), physiotherapy curriculum (Mobit et al., 2024), biology curriculum, (Aydın & Aslan, 2021), health and physical education (Cruickshank, 2018) and physics curriculum (Kotluk & Yayla, 2016). Only one study has been found where the SC, which is the subject of this research, was evaluated according to Tyler's model. In this study, Aslan and Erden (2018) evaluated the curriculum of the fifth-grade science course and stated that while the program was effective in terms of student achievement, the majority of students could not reach the objectives, citing physical infrastructure, teacher, student, and family-related reasons as the cause.

Considering the limited number of studies based on Tyler's objective-based evaluation model for the current SC, it is believed that the findings obtained from this research provide comparative and significant contributions to the literature on SC. Moreover, we believe that more in-depth results were obtained by obtaining open-ended data during the data collection process. At the same time, it is considered that previous studies on the evaluation of SC were diversified, especially in terms of the data collection process, and that integrative findings were obtained. This in-depth data collection process was also considered in terms of class level, and instead of a superficial evaluation of all class levels where the SC is implemented, a single class level was examined in detail. Thus, new areas for program evaluation studies in the literature for the SC curriculum based on the Tyler model (class level, data collection process, etc.) are expected to emerge. Highlighting this gap, Ekinci and Eroğlu Doğan (2020) conducted a thematic analysis of curriculum evaluation studies for the SC curriculum and stated that very few evaluation studies were conducted for the SC curriculum updated in 2018. However, considering the dynamic nature of the new curriculum (The Turkish Century Education Model), which was gradually implemented in 2024 and is still being implemented in the lower grades, it is expected to make significant contributions (MoNe, 2024). This process, which can also be considered as a process of improvement, feedback, and taking measures for curricula, will also provide longitudinal comparative opportunities for new research. In this context, the research aimed to evaluate the 6th-grade SC implemented in Türkiye based on Tyler's objective-based evaluation model according to teacher opinions.

Method

Research Model

In this study, which aims to evaluate the SC according to teachers' views, a basic qualitative research design was adopted. Basic qualitative research, one of the most common types of qualitative research in educational sciences, aims to reach information by focusing on how participants interpret their lives and how they perceive the world (Merriam & Tisdel, 2015). Since this study was carried out to reveal how teachers, who are the implementers and stakeholders of the SC, perceive this curriculum and what their own experiences are, the basic qualitative research method was preferred. In this context, opinions on the SC, which is a fundamental document serving as a guide for teachers, were elicited through a semi-structured interview form without any intervention. The semi-structured form, organized according to Tyler's objective-based evaluation model, was applied to ST who made up the study group within a defined timeframe. Within the framework of this model, it was aimed to evaluate dimensions such as the role and effect of the SC during the implementation process, teachers' level of understanding and use, and the appropriateness of subject areas, activities, and evaluation situations to the students' levels.

Study Group

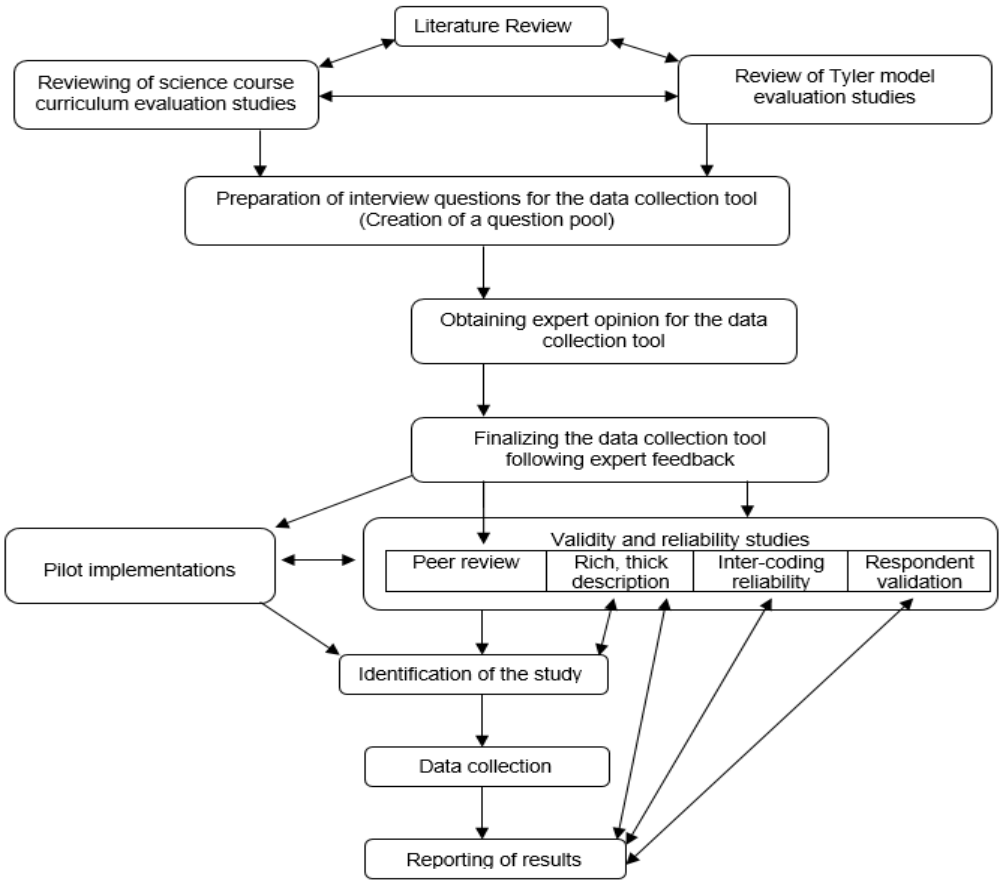
The study group, selected through the convenience sampling method, one of the non-random sampling methods, consists of 30 teachers who taught science at the 6th-grade level. In this method, which is preferred due to time, money and labor limitations, the sample should be selected from easily accessible and applicable units (Büyüköztürk et al., 2009). Accordingly, in the province of Uşak in Türkiye where the study was conducted, teachers in schools that the researchers considered convenient for data collection in terms of time, labor, accessibility, and the possibility of quick feedback constituted the study group. Within this scope, data were collected through interviews conducted with 30 volunteer STs who participated in the study.

Role of the Researchers

According to Creswell (2021), researchers conducting qualitative studies should disclose any potential biases, assumptions, experiences, and prejudices prior to their investigations. This is crucial as the possible initial positions and biases of researchers can influence the study. The first author of the research has previously conducted various program evaluation studies (Balıkçı et al., 2021). In these studies, the researcher participated in data collection processes through interviews and played an active role in the analysis phases. Therefore, he possesses extensive experience in both program evaluation and the analysis of qualitative data. The second author is currently pursuing doctoral studies. During her doctoral education, she has taken courses on qualitative research methods and the analysis of qualitative data. Moreover, she has gained significant experience by analyzing qualitative data through interviews and document analyses for her master's thesis. The third author has conducted SC evaluation studies in

his contributions to other works and in the theses he supervised. Accordingly, it is believed that the authors have the knowledge and experience to enhance the quality of the research. The process of the study, including the roles of the authors, is presented in the flowchart below. (See Fig. 1)

Figure 1. Data Collection and Analysis Process



Data Collection Process

A semi-structured interview form developed by researchers was used to determine the opinions of ST regarding the SC. In the preparation of the semi-structured interview form, the literature was reviewed, and the opinions of 3 experts were obtained for the draft form. These experts comprise a doctorate holder in science education who undertook curriculum evaluation studies across various grade levels within the context of the SC, an Associate Professor in science education with experience in conducting evaluations grounded in diverse theoretical models, and a seasoned science educator engaged in doctoral studies, possessing prior experience in qualitative research methodologies. After gathering the expert opinions, the final version of the form consisted of questions that reflected the three dimensions of Tyler's program evaluation approach, namely objectives, learning experiences, and evaluation. Four questions were determined for each dimension, and the form was prepared with a total of 12 open-ended questions.

A table indicating which dimension each question probes is presented below (see Table 1).

Table 1. Questions about the dimensions of Tyler's model

Dimensions of the Model	Questions	Generated Categories
Objective	1. Do you think the SC is written clearly and understandably? Please explain.	Clear-Understandable
		Not Clear-Understandable
	2. To what extent do you believe the 6th-grade SC is related to the 6th-grade Mathematics curriculum?	Related
		Partially Related
		Unrelated
		No Idea
	3. What are your thoughts on the appropriateness of the curriculum outcomes to your students' levels?	Suitable for Student Level
		Partially Suitable for Student Level
		Not Suitable for Student Level
	4. To what extent do the units and learning areas in the 6th-grade SC contribute to students becoming scientifically literate individuals?	Contributes
		Partially Contributes
		Does Not Contribute
Learning Experiences	5. How are the educational situations (methods and techniques, pedagogical approaches) presented in the 6th-grade SC organized?	Student-Centered
		Partially Student-Centered
		Teacher-Centered
		No idea
	6. What are your views on the teaching methods and techniques used by teachers during the implementation of the SC?	Inquiry Based
		Partially Inquiry Based
		Traditional
	7. To what extent do the teaching methods and techniques used in class achieve the outcomes anticipated in the SC?	Advanced Level
		Partial Level
		Inadequate
		No idea
	8. How much emphasis do you believe is placed on activities related to the teaching process in the SC?	Sufficient
		Partially Sufficient
		Insufficient
Evaluation	9. Based on the exams you administer, to what level have students achieved the anticipated outcomes in the 6th-grade SC?	Achieved
		Partially Achieved
		Not Achieved
		No Response
	10. What are your thoughts on the assessment tools included in the SC?	Appropriate
		Partially Appropriate
		Inappropriate
	11. To what extent do the assessment and measurement tools used in exams prepared by teachers measure the outcomes in the SC?	Sufficient
		Partially Sufficient
		Insufficient
	12. How supportive are the measurement and assessment activities conducted in enhancing students' understanding of science concepts?	Supportive
		Partially Supportive
		Not Supportive

Data Analysis

In the study, the qualitative data obtained were subjected to descriptive analysis. According to this method, codes and categories were generated from the responses to the questions on the interview form. The responses, organized according to writing rules, were reflected in tables without the addition of the researchers' interpretation, representing each category of teacher opinions. During this process, the answers to each question were separately coded by three researchers, and the emerging codes were compared to examine their consistency and reliability values. For each question, the formula proposed by Miles and Huberman (1994), [Consensus / (Consensus + Disagreement)], was considered, and the conformity rate of the codes was identified as 0.90. Based on this inter-coder, it was concluded that the analysis process was reliable.

Validity, Reliability, and Ethical Considerations

Since the data collection process was conducted through qualitative interviews, the criteria for validity and reliability were implemented in accordance with a qualitative research approach. Within this scope, peer review and respondent validation were obtained to ensure the credibility of the research. At least three experts were consulted both in the design of the data collection tool and in the analysis of the data. These experts are comprised of an associate professor, a doctoral-level educator, and a specialist teacher, each with a background in science education and prior experience in both evaluating SC and conducting qualitative data analysis. For respondent validation, some of the teachers involved in the interviews were presented with the generated categories and sample teacher statements. Their opinions were sought on whether the relevant statements accurately represented the categories. The teachers affirmed the categories created by the researchers, reaching a consensus. They were asked whether the responses reflected in the tables were indeed their own and whether they wished to add any new statements, subsequently incorporating raw data into the tables. To ensure the transferability of the research, rich, thick description was carried out. For this, teacher statements representing the categories put forward by the researchers were separately included in the tables for each question, and the number of these statements was increased. This descriptive process was also taken into account during the formation of the research group, reaching out not only to schools in urban centers but also to some schools in rural areas. Additionally, it was ensured that all teachers had taught 6th-grade science classes within the previous year; hence the provision of more accurate data regarding the 6th-grade SC's topics and outcomes was facilitated. To ensure the research's consistency, inter-coding reliability was conducted. For this, all three researchers coordinated, particularly in the creation of categories and conducting analyses in unison. The resulting categories were compared, and those that reached a consensus were included in the analysis and tabulated. Categories with differing opinions were reviewed again, and a separate conformity percentage was calculated for each question. Accordingly, the lowest conformity percentage for interview questions was calculated as 83% (for the 3rd, 6th, and 10th questions), and the highest was 100% (for the 1st question).

Within the scope of the research's ethical procedures, data were collected through interviews with ST who voluntarily participated in the study, in accordance with the decision of the …… University Social and Humanities Scientific Research and Publication Ethics Board, dated July 5, 2023, and numbered 2023-146.

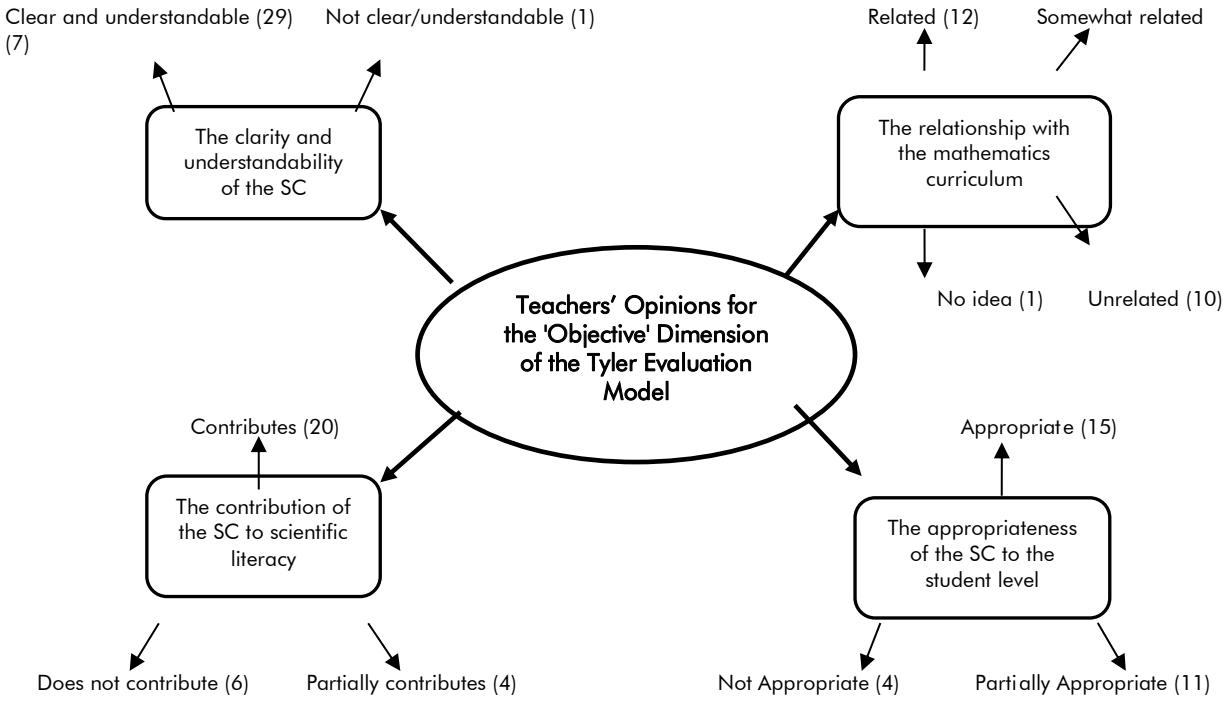
Findings

In this section, the categories formed and the teacher statements representing each category are included. Findings for each dimension of Tyler's objective-based program evaluation model are tabulated separately.

Teachers' Opinions on the SC for the 'Objective' Dimension of the Tyler Program Evaluation Model

Four questions were asked to ST for the objective dimension. The answers reflecting the teachers' opinions are shown in the concept network below according to the analyzed categories **(see Figure-2).**

Figure-2. 'Teachers' Opinions on the SC for the 'Objective' Dimension



The teacher opinions reflecting the created categories are presented below in order according to the interview questions in Table 1.

Table 2. Teachers' Opinions on the Clarity and Understandability of the 6th Grade SC (Question 1)

Code	Clear-Understandable	Not Clear-Understandable
f	29	1
Sample Teacher Statements	T21: *'The teaching program clearly explaining the objectives and how many hours per week these objectives should be taught indicates that it is understandable.'* T4: *'Yes, the competencies that need to be given and the topics that should not be touched upon are clearly stated.'* T17: *'I think the curriculum is clear and understandable because the fundamental 21st-century skills that students need are clearly and explicitly provided in the curriculum.'*	T27: *'No. I do not find it understandable.'*

According to Table 2, 29 teachers indicated that the SC is written clearly and understandably. Teacher T21 substantiated this view with the distribution of weekly lesson hours. Teacher T4 articulated his opinion through the learning outcomes and delimited subject contents, while Teacher T17 explained his perspective with the 21st-century skills emphasized in the SC. However, one teacher stated that the SC is not clear and understandable.

Table 3. Teachers' Opinions on the Extent to which the 6th Grade SC is integrated with the 6th Grade Mathematics Curriculum (Question 2)

Code	Related	Partially Related	Unrelated	No idea
f	12	7	10	1
Sample Teacher Statements	T17: *'I believe that the outcomes required to be imparted to students in the science curriculum and the mathematics curriculum are interconnected. In science, especially in the force and motion unit, we rely extensively on numerical data. I also think it's related to how units are used in the mathematics curriculum.'* T21: *'The presence of mathematical operations required for the 6th grade in science, in both courses' curricula, highlights the importance of the program's interdisciplinary approach. The program is adequate in this respect.'*	T5: *"If we consider interdisciplinary interaction, we can say there is a partial relationship between the two courses because the Science curriculum includes some basic mathematical concepts, but this relationship is not very strong.'* T29: *'In the 4th Unit, the Force and Motion, the topic of speed is related to mathematics. So, if our students have not seen or learned the topic of simple arithmetic operations, ratio-proportion, graph reading, and interpretation in mathematics, we face difficulties.'*	T1: *'I think it's not adequately integrated. The Science and Mathematics curricula are not in coordination. We see that the skills needed in the Science curriculum are taught in later units in the Mathematics curriculum compared to the Science curriculum. This situation causes difficulties.'* T24: *'I don't think they follow each other in terms of topics. When the operations that need to be applied in science are not seen by the students in mathematics, problems can arise.'*	T27: *'I have no idea.'*

According to Table 3, 12 teachers indicated that the SC is related to the mathematics teaching curriculum. T17, who clarified this situation with the example of the force-motion unit, noted that numerical data are utilized in this unit and related it to the

manner units that are used in the mathematics teaching curriculum. Seven teachers found both curriculums to be partially related. T5 stated that although the SC includes some mathematical concepts, this relationship remains at a partial level and is not very strong. Ten teachers reported that the SC and the mathematics curriculum are not related. T1 and T24 justified their views with the lack of coordination in the units and topics of both curriculums. One teacher did not express an opinion.

Table 4. Teachers' Opinions on the Suitability of the SC Outcomes to Students' Levels (3rd question)

Code	Suitable for Student Level	Partially Suitable for Student Level	Not Suitable for Student Level
f	15	11	4
Sample Teacher Statements	T25: *'The outcomes are given in line with the students' levels.'* T4: *'They are suitable for the students' levels. They do not exceed their levels.'* T23: *'It was observed that the outcomes positively enhanced students' cognitive levels.'*	T21: *'Two units where we heavily use mathematics (force and motion, matter and heat topics) slightly challenged my students' levels.'* T29: *'Outcomes are suitable for student levels, but because the systems topic is thrust upon the students all at once, lasting learning does not occur. We also face problems with the speed topic every year.'*	T5: *'Considering the developmental stage and age of the children, I believe that the curriculum outcomes are not suitable for the students. The curriculum is very intensive and has been prepared in detail.'* T27: *'Topics are quite lengthy and comprehensive. I think it's above the student's level. Also, because the topics are long, there is limited time available.'*

According to Table 4, 15 teachers stated that the outcomes of the SC are suitable for the students' level. T23 justified this view by emphasizing that the outcomes support the cognitive levels of the students. 11 teachers stated that the outcomes are partially suitable for the students' level. Elaborating on this view with some specific topics and units, T21 highlighted that students struggled a bit in the force and motion and matter and heat topics where mathematical operations are heavily utilized. 4 teachers expressed negative opinions about the suitability of the outcomes to the student level. T5, who linked this view with children's developmental periods, also noted that the curriculum is intense and detailed.

Table 5. Teachers' Opinions on the Contribution of the SC to Students Becoming Scientifically Literate Individuals (4th question)

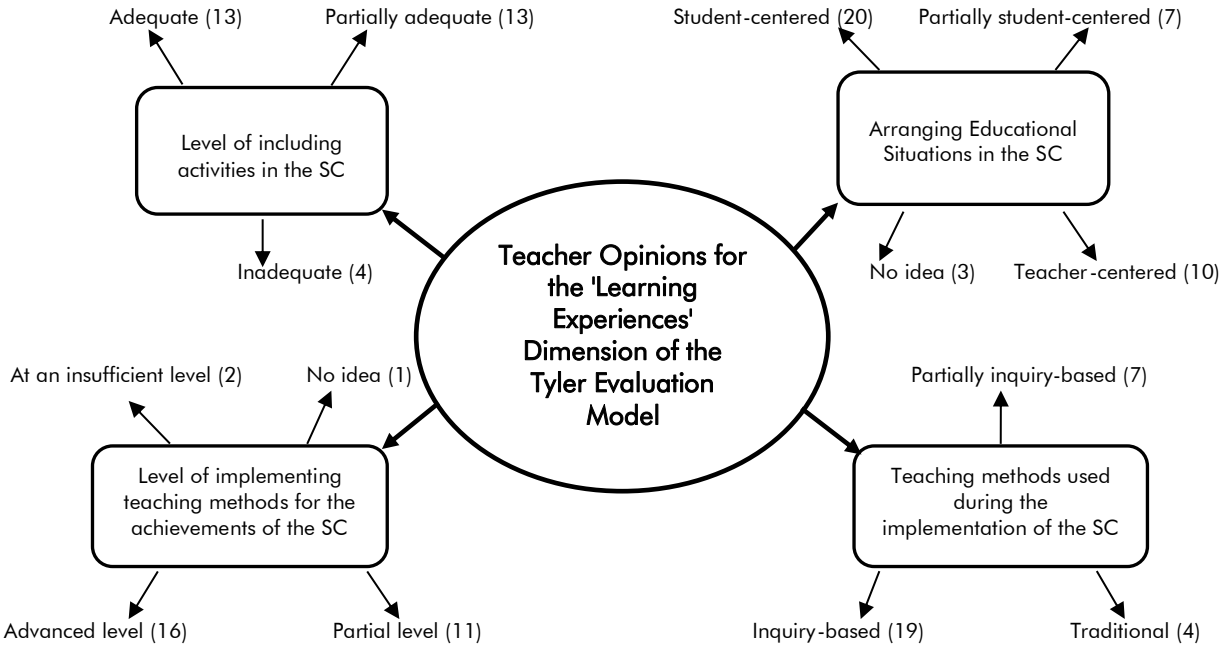
Code	Contributing	Partially Contributing	Not Contributing
f	20	4	6
Sample Teacher Statements	T21: *'The curriculum is set up to offer the chance to acquire characteristics of being science literate, such as problem-solving and researching.'* T15: *'Presenting students with daily life examples related to the topic makes the subject more understandable. Increasing these examples will enhance science literacy.'* T3: *'Topics related to their daily lives arouse curiosity, and since it captures their interest, it encourages them to research. They contribute by exploring, reflecting on their thoughts, and presenting their projects.'*	T26: *'Of course, it contributes to a certain level, but I don't find this level sufficient. I believe that the unit contents are overly restricted and that this limitation constrains the level of science literacy.'* T18: *'It's at a medium level, not advanced.'* T7: *'It should be further supported in terms of numerical readiness.'* T28: *It contributes to becoming science literate, but not all units contribute equally.'*	T9: *'I can't say there's a profound level of science literacy. Because the primary concern at the end of middle school is the high school entrance exam (LGS), the main thing in the minds of most parents, students, and teachers is aimed at achieving the best score in this exam. In such an environment, the student profile that learns through deep research, discussions, and other methods is hindered.'* T1: *'I don't think the achievements that increase students' science literacy in the science curriculum are adequately integrated within the units. I am not sure that the existing outcomes are sufficiently implemented in the classroom for various reasons. Even though there is a unit named "Applied Science" in the program, this unit, which comes towards the end of the second term, is mostly dealt with superficially.'*

According to Table 5, while 20 teachers expressed that the SC contributes to students becoming scientifically literate individuals, T21 emphasized the problem-solving and inquiry dimensions of science literacy, and T15 and T3 highlighted the relation to daily life events. 4 teachers indicated that the SC partially contributes to students becoming scientifically literate. T26 based this view on the limitation of topic contents. 6 teachers stated the opposite opinion. T9 explained this opposing view due to the influence of centralized exams (LGS), while T1 emphasized the superficial treatment of the "Applied Science" lessons in particular.

Teachers' Opinions on the SC for the Learning Experiences Dimension of the Tyler Program Evaluation Model

For the dimension of learning experiences, four questions were posed to ST. The answers reflecting the opinions of the teachers, as analyzed by categories, are shown in the concept network below **(see Figure-3).**

Figure 3. Teachers' Opinions on the SC for the Dimension of 'Learning Experiences'



The teacher views reflecting the created categories are presented below in order according to the interview questions in Table 1.

Table 6. Teachers' Opinions on the Arrangement of Educational Situations in SC (Question 5)

Code	Student-Centered	Partially Student-Centered	Teacher-Centered	I have no idea
f	20	5	2	3
Sample Teacher Statements	*T17: 'The curriculum aims for students to produce knowledge by experimenting and designing. Therefore, many activities have been included in the curriculum. A student-centered approach is exhibited. The methods and techniques used are suitable for the development level of the students.'* T22: *'Experimental methods and techniques, that is, those that center on the student and allow the student to produce outputs and experience the joy of achievement, provide more permanent learning experiences. In general, there are no problems in planning and implementing these methods and techniques.'*	*T14: 'The methods and techniques are related to the course objectives, but pedagogically, I believe some objectives should be in different grade levels.'* T19: *'Experiment design is a bit lacking. No problem with the methods.'* T15: *'Adjustments should be made according to each region and school. Teachers should be able to adapt pedagogical approaches and practices according to the needs of the students.'*	*T1: 'The educational situations in the curriculum are insufficient. There should be a diversification of methods and techniques that can be used, and alternative activities should be included where methods and techniques are used according to the facilities and capabilities of the school. Also, teachers should be guided on the implementation of these methods and techniques, and necessary materials should be provided.'* T5: *'Educational situations have been arranged according to the current period and readiness levels of the students, but I think it's inadequate.'*	T26: *'I cannot express an opinion on this matter.'*

According to Table 6, the majority of teachers stated that the SC is structured in a student-centered manner. T17 explained this view by pointing out that students produce knowledge by experimenting and designing, while T22 emphasized an understanding that centers on students and allows them to produce outputs. Five teachers mentioned partially student-centered situations. Accordingly, T14 stated that although teaching methods and techniques are related to course objectives, some objectives are not appropriate for the grade levels. T19 pointed out that while there's no problem with teaching methods, the experiment design process is a bit lacking. Two teachers indicated that the SC is not student-centered. In this context, T1 expressed that teaching methods and techniques need diversification, and there should be alternative methods and techniques suitable for the facilities and capabilities of the school. Three teachers did not express any opinion on this matter.

Table 7. Teachers' Views on Teaching Methods and Techniques Used in the Implementation of the SC (Question 6)

Code	Inquiry	Partially Inquiry	Traditional
f	19	7	4
Sample Teacher Statements	T14: *'In some topics, students are enabled to relate with STEM (like in thermally insulated houses) and in some learning outcomes, they have the opportunity for coding (like in the electricity unit with a rheostat)'* T29: *'Since we prioritize a constructivist educational approach, we aim to create a classroom environment where students actively learn by doing, experiencing, and experimenting, striving for lasting knowledge.'* T5: *'We mostly prefer modern methods like research-investigation, discovery strategies combined with brainstorming, and creative drama.'*	T1: *'In schools, teachers often hesitate to research and apply different methods and techniques, mainly due to exam pressures and anxieties. Therefore, the variety and number of methods and techniques used in schools are quite limited.'* T22: *'It varies from teacher to teacher, unfortunately. However, teachers who actively involve their students in the learning process both achieve academic success and become very popular among their students. Because when students see their thoughts and themselves being valued, they feel more esteemed and experience the joy of success firsthand.'*	T30: *'I think many of us use verbal instruction due to the program's intensity.'* T15: *'The curriculum mostly requires narration, and observation techniques. Due to the physical environment's insufficiency, each student's varying interests and needs, and most importantly, the limited time, I think some methods and techniques cannot be used.'*

According to Table 7, for teaching methods and techniques used during the implementation of the SC, 19 teachers stated that they could use research-inquiry-based methods. In this regard, T14 highlighted current teaching approaches like STEM and coding and mentioned topics like thermally insulated houses where students could relate to STEM, and in certain topics like electricity where they were allowed to code. 7 teachers indicated that they could adopt partial research-inquiry processes during the implementation of SC. In this context, T1 mentioned hesitations in applying research and practice-oriented methods and techniques due to reasons such as exam anxieties. 4 teachers pointed out that they used traditional teaching methods and techniques. T30 emphasized the intensity of the teaching program, while T15 mentioned reasons such

as lack of physical resources and time constraints that lead them to adopt a traditional teaching approach.

Table 8. Teachers' Views on the Level of Achievement of 6th Grade SC Outcomes by the Teaching Methods and Techniques Used in Science Lessons (Question 7)

Code	Advanced Level	Partial Level	Inadequate Level	No Opinion
f	16	11	2	1
Sample Teacher Statements	T4: *'The methods and techniques used fully achieve the intended curriculum.'* T5: *'With the correct use of teaching methods and techniques, outcomes can be achieved at the desired optimal level.'* T24: *'If applied correctly, the outcomes are significantly achieved for the students.'*	T17: *'I don't think that the methods and techniques used in lessons fully convey the outcomes to the students because I believe the outcomes are a bit challenging for the students' level.'* T29: *'Of course, when there is an active learning environment, the time given for lesson outcomes is not sufficient. So, it's at a medium level.'* T1: *'In my opinion, it happens at the level of knowledge, comprehension, and application. Advancing beyond the application is quite challenging.'*	T2:*' Superficial'* T8: *'Little'*	*T30: 'None'*

According to Table 8, 16 teachers stated that the SC outcomes can be achieved with the teaching methods and techniques used in science lessons. In this context, T5 and T24 indicated that if teaching methods are used correctly, the outcomes of the SC can be achieved at an advanced level. 11 teachers expressed their views at a partial level. T29 stated that the outcomes can be achieved when there is an active learning environment, but due to the limited lesson durations, they are achieved at a medium level. 2 teachers shared opinions contrary to these views, while 1 teacher did not provide any opinion.

Table 9. Teachers' Views on the Inclusion of Activities in the 6th Grade SC During the Process of Teaching Science Lessons (Question 8)

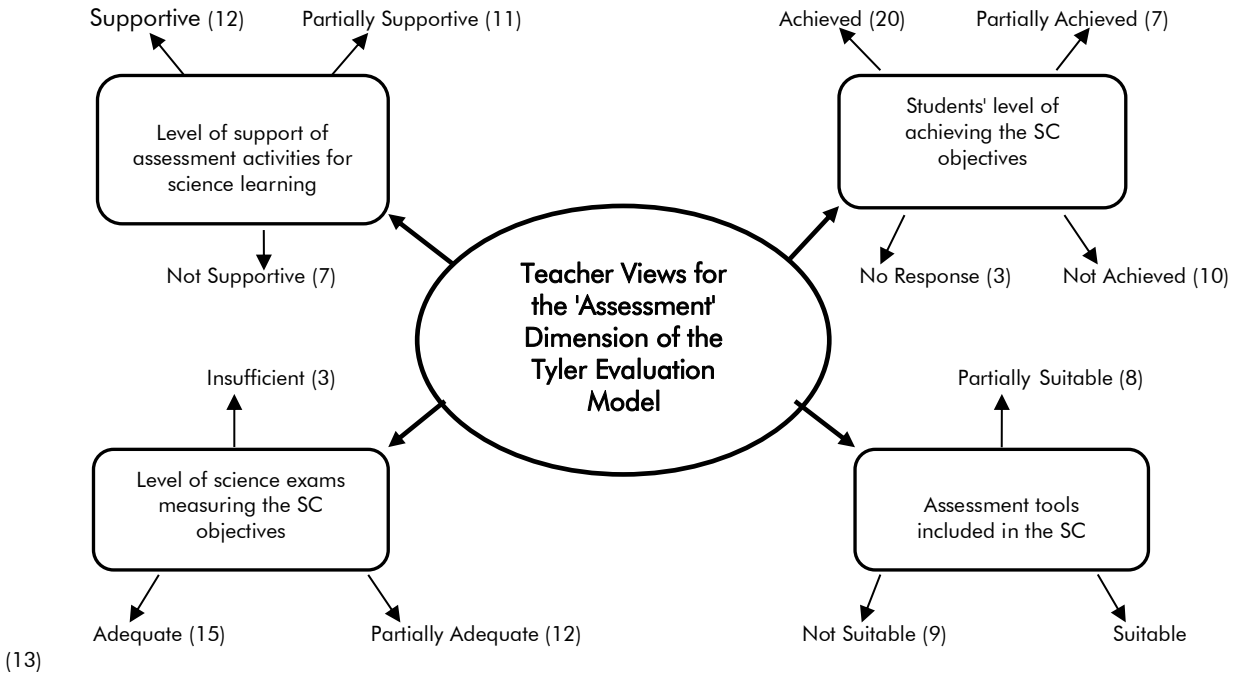
Code	Sufficient	Partially Sufficient	Inadequate
f	13	13	4
Sample Teacher Statements	*T17: 'I think activities are used quite extensively throughout the teaching process. The outcomes given in the curriculum are based on activities. For instance, activities are frequently incorporated in textbooks and resources in the density unit or the matter and heat unit.'* T25: *'In the new curriculum, activities have been provided adequately for in-class and out-of-class reinforcement.'* T4: *'They have been incorporated adequately and are suitable for the student level.'*	*T15: 'Materials in the activities are easily accessible, so every student can easily perform them. However, more activities that spark curiosity for research and experimentation should be included.'* T14: *'If you only have the science course, then almost none. Because the outcomes match almost exactly with the lesson hours. But if you have a science application course, you are lucky. Then activities progress beautifully.'* *T24: 'Sometimes, sufficient lesson time is not provided. Abstract topics require longer lesson hours, yet the curriculum demands topics to be covered in 4 hours.'*	T26: *'Most of our teachers allocate very little time to activities. Teachers generally adopt an exam-focused and test-focused teaching process.'* T13: *'Activities are inadequately incorporated due to the exam-focused system.'* T5: *'I don't think most activities are conducted due to the intensity of the topics.'*

According to Table 9, 13 teachers indicated that they include the activities found in the SC to their science lessons. T17, who substantiated this view with topics such as density, matter, and heat, stated that the outcomes in the SC are activity-based and that many activities are used throughout the teaching process. Another 13 teachers partially agreed with this view. Accordingly, T24 and T15 explained their views on the lack of time. Four teachers expressed opposing views. In this context, T13 and T26 mentioned the exam-focused system, and T5 pointed out the topic intensity as a reason for not including the activities in the SC in his science lessons.

Teachers' Views Regarding the Dimension of 'Evaluation' of Tyler's Program Evaluation Model for the SC

For the dimension of evaluation, four questions were asked to the ST. The answers reflecting the teachers' opinions are shown in the concept network below (see **Figure 4**).

Figure-4. Teachers' Views on the Dimension of 'Evaluation' for the SC



The teacher views reflecting the formed categories are presented below in order according to the interview questions in Table 1.

Table 10. Teachers' Views Regarding the Achievement Level of Students in the Exams Conducted for Science Lessons towards the 6th Grade SC Objectives (Question 9)

Code	Achieved	Partially Achieved	Not Achieved	No Response
f	17	11	1	1
Sample Teacher Statements	T15: *'Based on the exam results, it's observed that students who have reached a certain level have achieved all objectives, with the majority accomplishing them, except for a few students.'* T21: *'I think they generally achieved the levels of knowledge, understanding, and application.'* T28: *'I observed that they reached the majority of the objectives, based on the students' answers.'*	T4: *'While not all 6th graders have reached the same level, they have generally achieved the expected level.'* T16: *'Individual learning situations vary, but in general, it's above average.'* T7: *'Excluding extraordinary conditions, the majority are at an appropriate level, but it was difficult to assess and receive feedback in hybrid education.'*	T17: *'Based on the exams we conducted, I think our students haven't fully grasped the objectives. A reason for this might be the emphasis on activities in the lessons, which doesn't allow students to practice solving questions or taking tests.'*	T1: *'Due to the institution I work at, I don't conduct exams that quantitatively measure academic achievement. Therefore, I can't answer this question.'*

According to Table 10, 17 teachers believed that based on the exams they conducted, students were able to achieve the SC objectives. T21 explained this thought using Bloom's taxonomy, stating that students could reach the application level. 11 teachers stated that, according to the conducted exams, students were able to partially achieve the SC objectives. T4 emphasized that, in general, students were able to achieve the objectives, but particularly at the 6th-grade level, not all students were at the same level. One teacher expressed an opposing view, and one teacher did not express any opinion.

Table 11. Teachers' Views on Assessment and Evaluation Tools in the 6th Grade SC (Question 10)

Code	Suitable	Partially Suitable	Not Suitable
f	13	8	9
Sample Teacher Statements	T23: *'The tools and inventories used facilitate assessment and have contributed well to learning outcomes.'* T25: *'Assessments are not only based on exams but also consider the student's participation in class and activities outside of class, evaluating the overall success of the student.'*	T12: *'It's good, but I believe it needs to be supplemented with next-generation questions.'* T28: *'It only measures at the knowledge level and doesn't address the application area.'*	T21: *'I think the assessment tools are too simplistic for the topics.'* T19: *'The questions in the textbooks are simple compared to what students learn in the program, but different characteristics are expected in the LGS format.'*

According to Table 11, 13 teachers indicated that the assessment and evaluation tools in the SC are suitable for science lessons. T25, considering the support for students' in-class and out-of-class participation, stated that there's a holistic evaluation approach, not just an exam-focused assessment. 8 teachers somewhat agreed with this view, with T12 specifically emphasizing the need for next-generation questions. 9 teachers expressed opposing views. Among them, T21 commented that assessment tools are too simple, while T19 pointed out the different format of the central examinations (LGS).

Table 12. Teachers' Views on How the Assessment and Evaluation Tools Used in Science Exams Measure the Objectives in the 6th Grade SC (Question 11)

Code	Sufficient	Partially Sufficient	Insufficient
f	15	12	3
Sample Teacher Statements	T9: *'I believe that in recent years, with the diversity and creativity in question-asking techniques, objectives are largely measured. Especially in recent years, with next-generation science questions, objectives are measured more accurately.'*	T21: *'In the science application course exam, it measures more at the analysis and synthesis levels, while science exams usually stay at the knowledge and understanding levels.'*	T13: *'I don't think a conscious assessment and evaluation tool has been prepared to measure the objectives.'*
	T17: *'I think the exams prepared by our teachers fully measure the objectives.'*	T22: *'It's predominantly focused on knowledge and understanding levels.'*	T19: *'The experiential learning stage is always missing. For instance, if we're doing an exam on pressure, there should be a simple, practical, and group-based assessment.'*
	T24: *'I believe it measures at a high level. Objectives are fairly evaluated and assessed.'*	T25: *'The assessment and evaluation tools used in exams prepared by teachers measure at the knowledge level.'*	

According to Table 12, 15 teachers stated that the assessment and evaluation tools they used in science lessons measure the objectives sufficiently. T9 highlighted the recent diversity and creative questions in these tools. 12 teachers partially agreed with this viewpoint, with T25 explaining this perspective by pointing out that questions mainly measure at the lowest level of Bloom's taxonomy, the knowledge level. Meanwhile, 3 teachers expressed opposing views, with T19 emphasizing the lack of practical and group-based assessments.

Table 13. Teachers' Views on the Extent to Which Assessment and Evaluation Activities in Science Lessons Support Students' Understanding of Concepts in the 6th Grade SC (Question 12)

Code	Supportive	Partially Supportive	Not Supportive
f	12	11	7
Sample Teacher Statements	T5: *'Students achieve more lasting learnings with more concrete learnings. The evaluations conducted largely support learning related to science concepts.'* T23: *'It is very successful in determining students' levels of learning, and it has been a successful tool in understanding and evaluating the subject.'*	T9: *'It's fifty-fifty. I don't believe every assessment and evaluation activity affects learning science concepts. Mostly because the purpose is to measure, the supporting feature of the activities is overlooked.'* T14: *'It supports at the knowledge level but doesn't support at the analysis and synthesis levels.'*	T7: *'It's very low; there is some relevance at the cognitive level in 8th grade, but we are not sufficient in other grades.'* T15: *'The conducted assessments and evaluations are mostly in the form of multiple-choice tests focused on exams. It doesn't foster creativity and is inadequate in solving complex problems, so it can't teach science concepts permanently.'*

According to Table 13, 12 teachers indicated that the assessment and evaluation activities in science lessons also support the learning processes. T5 based this view on the context of making learnings more concrete. 11 teachers indicated that activities partially support, with T9 clarifying that even if they supported half and half, it wouldn't be applicable to all assessment tools. 7 teachers expressed opposing views. Among them, T15 anchored this perspective to exam-focused multiple-choice tests and especially explained it in terms of their ineffectiveness in enhancing creativity.

Results and Discussion

In this study, 6th-grade SC was evaluated according to Tyler's objective-based evaluation model based on teachers' opinions. The results obtained were discussed by considering the sub-dimensions of Tyler's model separately. For this purpose, the results of the research on current SCs were taken into consideration. Ekinci and Eroğlu Doğan (2020), who provided a rationale for this in their thematic analysis study, found that most of the SC evaluation studies were related to the 2005 SC and the 2013 SC. They emphasized that there were very few evaluation studies conducted for the SC updated in 2018, which is currently in practice. Upon reviewing these evaluation studies, it was observed that there were evaluations that addressed the curriculum as a whole, and no specific studies focusing on the 6th grade were included. Accordingly, in this study evaluating the 6th grade SC based on Tyler's program evaluation approach, the sub-dimensions of the model, namely Objectives, Learning Experiences, and Evaluation, were discussed separately. Each element was primarily discussed by comparing it with the results of evaluation studies targeting the 2018 SC. Additionally, the 2013 SC, which shares many similarities, was considered, and discussions were also provided in the context of the common features of both curriculums.

Results Related to the Objective Dimension of the 6th Grade SC

For the 6th grade SC, almost all teachers reported that it was written clearly and understandably. Gürdal (2021) found similar results, identifying that teachers perceived the strongest aspect of the SC to be its clarity and comprehensibility. Similarly, in Polat Tan's (2019) study, the majority of teachers stated that the objectives of the SC were clear and understandable, and in Ulu's (2016) study, they noted that the objectives were clear and explicit. Based on this, it can be said that the aspect of the SC most strongly appreciated by teachers is its clear and understandable writing. Especially in the last 20 years, SCs have been addressed dynamically in light of contemporary approaches, and in this context, significant experiences and expertise have emerged with frequent updates. The reason teachers find the SC clear and understandable may be the reflection of this experience and expertise in the curriculum development processes. Regarding the appropriateness of the SC to the student level, half of the teachers expressed positive views while the other half expressed somewhat positive and negative views. In Gürdal's (2021) findings, while there were teachers who stated that the SC was appropriate for the student level, there were also teacher opinions that indicated the opposite. Similarly, Polat Tan (2019) mentioned that some teachers were undecided, while others expressed positive views about the suitability of the SC for the student level. Conversely, in Ulu's (2016) study, a large majority of teachers expressed positive views, reaching slightly different conclusions. A possible reason for this slight difference may be that most of the data in the relevant studies were collected using scaled measurements, resulting in limited expressions, while this study was based on more detailed open-ended data. Detailed open-ended data allow teachers to touch on limitations and restrictions regarding specific topics, units, and themes, even if they generally use positive language. This highlights a discussion on how curriculum evaluation studies should be approached, especially in terms of data collection processes. While the majority of teachers expressed positive views about the SC's contribution to students becoming scientifically literate individuals, some also expressed somewhat positive and negative views. Ulu (2016) reached similar findings, identifying teachers' views suggesting that the objectives of the SC contribute to fostering scientific literacy, with some teachers being undecided as in this study. Balıkçı et al. (2021) provided more detailed findings, especially grounding the aspect of the SC that supports scientific literacy in its connection with real-life situations, in line with the results of this study. Yolcu (2019), however, found that more teachers were undecided about whether the SC enabled students to become scientifically literate. Although the concept of scientific literacy is presented as a fundamental vision in recent science course curricula, various definitions and content can be found in resources on science education. The teachers participating in this study might have been exposed to different resources and have varying pedagogical readiness, which could be the reasons for the somewhat different results. Supporting this, some teachers defined scientific literacy in the context of research, inquiry, and problem-solving skills, while others tried to explain it in the context of its relationship with everyday life. This could be a significant result, indicating the necessity to address the dimension of scientific literacy more comprehensively and deeply in SC evaluations. Since scientific literacy, with many sub-

dimensions defined in the literature, is not directly revealed by teachers in data collection processes without specifying which dimensions are perceived, partially different views and results, as in this study, are possible.

Results Related to the Learning Experiences Dimension of the 6th Grade SC

The majority of teachers stated that the 6th-grade SC is prepared in a student-centered manner. A few teachers indicated that it is partially student-centered or not student-centered at all. Polat Tan (2019), reaching similar conclusions, identified teachers' views suggesting that student-centered teaching strategies are adopted in the SC. However, the study also included a few undecided and opposing views. Koca et al. (2021) also highlighted teacher views indicating that student-centered learning-teaching processes are adopted in the SC. In another study where the majority of teachers expressed that the SC is student-centered, Çevik (2020) identified a few undecided views. Karataş (2022), reaching partially similar results, found out that the majority of teachers are undecided about the student-centeredness of the program, and some expressed positive views. The possible reason for this partial difference could be that the study was conducted with teachers who taught at the 3rd and 4th grade levels. Since primary teachers teach science courses at the 3rd and 4th grade levels, their perspective on student-centered educational practices in the SC may differ somewhat from STs who teach at the 6th-grade level covered in this study. In addition, especially in the 2013 SC, it is recommended that science teaching practices at the 3rd and 4th-grade levels are approached with a structured research-inquiry approach rather than being open-ended (MEB, 2013). The fact that the participants of this study received their pre-service teacher training according to the 2013 SC could be another possible reason for the partial differences observed.

Views suggesting that the SC is prepared in a student-centered manner were quite similar to another finding that indicated that the teaching methods and techniques in the curriculum are based on inquiry. 19 teachers stated that the teaching methods and techniques in the SC are based on research-inquiry, 7 teachers mentioned that they are partially based on research-inquiry, while 4 teachers stated they are traditional. Çevik (2020), reaching very similar findings, identified teachers' views indicating that there are activities in the SC that encourage students to research and inquire. The study also identified a few undecided and opposing teacher views. Saraç and Yıldırım (2019) detected teacher views emphasizing that adopting a research and inquiry-based teaching approach is one of the positive features of the SC. In another study with similar findings, Yolcu (2019) identified teacher views emphasizing that there is a significant inclusion of activities like experiments and projects, which are practices of the research-inquiry-based approach, in the SC, and students actively participate in these activities. Based on these results, it can be said that ST largely see the teaching methods and techniques in the SC as student-centered and based on research-inquiry. This situation, which is quite compatible with the character of science education, may be an important and positive indicator of the shift from traditional science teaching processes, which have been greatly emphasized in Türkiye for many years, to contemporary science teaching

processes. The constructivist learning theory, which forms the basis of the 2005 Science and Technology Curriculum, and the research-inquiry-based learning approach, which underpins the 2013 and 2018 Science Curriculums, have been strongly emphasized in textbooks, curricula, and pre-service and in-service teacher training programs over the past 20 years in our country. This emphasis appears to be a significant factor contributing to these outcomes.

16 ST indicated that the implemented teaching methods and techniques can achieve the goals of the SC, while 11 teachers partially agreed with this view. Ulu (2016), reaching a similar finding, identified teacher views suggesting that the learning-teaching process of the SC contributes to the realization of its goals. Similarly, Yıldırım (2018) detected teacher views indicating that the learning-teaching process of the SC largely supports students' learning. Yolcu (2019), reaching partially different findings, identified teacher views suggesting that although certain sub-objectives of the SC, such as scientific process skills, problem-solving skills, and environmental awareness, are developed, teachers are undecided about whether student achievement has improved or not. These partially different results highlight the discussion, especially in curriculum evaluation studies, on how to address the dimension of teaching methods and techniques and which learning outcomes they are effective for. It will enable the comparison and discussion of rich and varied results regarding whether the teaching methods and techniques achieve the learning outcomes for the specific learning areas and skills in the SC. However, another reason could be that even if each teaching method is recommended in the SC, teachers, especially those with different seniorities and experiences, may not possess the same competence in applying current teaching approaches effectively. Concerning the extent to which these recommended activities in the SC are implemented in the learning-teaching processes, 13 teachers responded that the activities are implemented adequately, 13 teachers indicated they are somewhat adequate, and 4 teachers expressed opposing views by saying they are insufficient. Ulu (2016), reaching similar results, identified teacher views suggesting that the activities in the SC are both applicable in-class activities and flexible enough to create different activities outside of class.

Results Related to the Assessment Dimension of the 6th Grade SC

The majority of the teachers stated that as a result of the exams they conducted in science courses, students achieved the objectives in the 6th grade SC. 11 teachers believed that students partially reached the curriculum's objectives, while 1 teacher expressed the opposite view, and 1 teacher did not respond. Reaching similar findings, Yıldırım (2018) included teacher views suggesting that students either fully or partially achieved the objectives. Although teachers largely believe that students achieved the objectives, one interesting finding from this study is the diverse teacher views regarding the assessment tools in the SC. Accordingly, 13 teachers stated that appropriate assessment tools are provided, while 8 teachers indicated that partially appropriate assessment tools are in place. Conversely, 9 teachers who participated in the study stated that the assessment tools in the SC are not suitable for science courses. These varying teacher views on assessment are also reflected in the literature. For instance, Çevik (2020) identified

mostly positive teacher views on whether the assessment techniques recommended in the SC can measure the objectives but also found a significant number of teachers who were uncertain. Similarly, Ulu (2016) included varying teacher opinions on whether there was adequate time for assessment activities and if they genuinely measured the student's actual performance. However, in general, he presented positive teacher views on whether the curriculum could measure objectives. The reasons for these varying teacher views on the SC's assessment understanding might be the differences between the exam format applied in centralized exams (LGS) and the exams applied within the SC. Additionally, some studies (Yıldırım, 2018) might primarily focus on collecting data for an assessment understanding that test objectives, while others (Ulu, 2016) may focus on collecting data for an assessment understanding that test different skills.

The balanced distribution of teacher views regarding the assessment understanding of the SC also revealed the level to which these practices support learning. Accordingly, 12 teachers stated that the related assessment activities support learning, 11 teachers indicated they partially support it and 7 teachers expressed that they do not support learning. Polat Tan (2019), reaching partially similar findings, emphasized implicitly that assessments should be process-oriented and identified that while the majority of teachers largely agreed there's a learning-supportive, process-focused assessment understanding, a significant number held undecided views. Similarly, Çevik (2020) identified teacher views indicating that there's a substantial emphasis on a process assessment understanding in the SC that supports the learning process through observation forms, rubrics, and peer assessments. However, the research also revealed a significant number of undecided teacher opinions. Besides the positive views, a significant reason for the emergence of undecided and negative teacher opinions might be the different perceptions about what learning outcomes should be measured. Due to the mostly different learning outcomes of exams conducted during the term, centralized exams, and traditionally assigned homework compared to alternative assessments, teachers might have struggled to integrate these forms of evaluation into the learning process.

Recommendations

Based on Tyler's program evaluation approach, in this research where the 6th-grade SC was evaluated according to teachers' opinions, the following suggestions have been made for new researchers and teachers:

Recommendations for Researchers

When comparing the results obtained from SC evaluation studies with the results of this study, it is observed that the data collection tool used has been a factor, albeit partially, influencing teachers' opinions. Therefore, studies can be conducted where holistic analyses are done using not only quantitative data collection tools like surveys and scales but also qualitative interviews.

One of the frequently examined situations in SC evaluation studies is scientific literacy. In the literature, where very comprehensive and broad definitions are made for scientific literacy, specific questions probing learning areas aimed to be imparted in the SC, such as the nature of science, socioscientific issues, and scientific process skills, can be included in the data collection process. The same can be said for teaching methods and techniques. Alongside general teaching methods and techniques, specific data collection processes regarding the research and inquiry-based teaching approach adopted in the SC can be adopted.

Different teacher opinions emerging in relation to Tyler's model's evaluation dimension highlight the emphasis on centralized exams (LGS). Considering this result, which reveals a situation where the entire assessment understanding of the SC is compared with a single exam, studies can be conducted that have specific data collection processes regarding alternative (complementary) assessment techniques recommended in the SC (like rubrics, concept maps, performance tasks, etc.).

This study was conducted specifically for the 6th grade SC. It is recommended to carry out similar studies based on the Tyler model for different grade levels (5th, 7th, and 8th grades), allowing for longitudinal comparisons based on grade levels. Furthermore, for the same grade level, evaluations of the SC can be conducted using different models (like CIPP, Stufflebeam, etc.) aiming to obtain multidimensional and in-depth data specific to that grade level.

Recommendations for Teachers

The most evident dimension where STs expressed different opinions has emerged concerning assessment and evaluation processes. The main reason for this situation is often shown as the structure of centralized exams. It can be recommended that ST follow seminars, courses, and training on both the assessment and evaluation approach adopted in the SC and on how they can conduct processes that will prepare students for centralized exams.

Without a doubt, teachers are one of the most crucial stakeholders in data collection for program evaluation studies related to the SC and in the processes of preparing and updating new programs. Considering the dynamic nature of program evaluation-development processes, it is suggested that they provide opinions reflecting their experiences for scientific studies in this context.

Although ST believe that research-inquiry-based and student-centered teaching methods and techniques are adopted in the SC, they have somewhat varied opinions about the implementation of these methods and techniques in lessons and the level of achieving the learning outcomes. In this context, current approaches directly related to the teaching of specific science topics, outcomes, and themes, and modern and effective teaching methods and techniques can be followed. Especially after the Covid-19 pandemic, professional development courses conducted remotely and online can be used for this purpose.

References

Anh, V. T. K. (2018). Evaluation models in educational program: Strengths and weaknesses. *VNU Journal of Foreign Studies, 34*(2). https://doi.org/10.25073/2525-2445/vnufs.4252

Aslan, M., & Sağlam, M. (2017). Methodological investigation of the curriculum evaluation theses completed between the years 2006-2015 in Turkey. *Universal Journal of Educational Research, 5*(9), 1468-1478. DOI: 10.13189/ujer.2017.050904

Aslan, M., & Erden, R. Z. (2018). Evaluation of 5th grade science curriculum. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education, 12*(2), 508-537. https://doi.org/10.17522/balikesirnef.506464

Aydın, F., & Aslan, M. (2021). Evaluation of the effectiveness of the ninth grade biology curriculum in different high school types. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* (37), 38-70. https://doi.org/10.14520/adyusbd.741935

Aygören, F. & Er, K. O. (2018). Classifications of curriculum evaluation. *Turkish Studies Eğitim Bilimleri Dergisi, 13* (11), 269-296. http://dx.doi.org/10.7827/TurkishStudies.13230

Aytaçlı, B. (2012). Durum çalışmasına ayrıntılı bir bakış. *Adnan Menderes Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Dergisi, 3* (1), 1-9. Retrieved from https://dergipark.org.tr/en/pub/aduefebder/issue/33889/375231

Balıkçı, Ç., Tüysüz, C., Tasdere, A., İnel Ekici, D. (2021). Teachers' views on the science curriculum based on context-input-processproduct (CIPP) model. *Usak University Journal of Educational Research, 7*(3), 39-67. https://doi.org/10.29065/usakead.1005067

Battal, F. C. (2008). *Examination of teacher's opinions regarding the application of science and technology program based on constructivist approach*. (Unpublished doctoral dissertation). Selçuk University

Baykul, Y. (2021). *Eğitimde ve psikolojide ölçme: Klasik test teorisi ve uygulaması (5. Baskı)*. Pegem Akademi.

Büyüköztürk, Ş., Kılıç, E. K., Akgün, Ö. E., Karadeniz, Ş. ve Demirel, F. (2009). *Bilimsel Araştırma Yöntemleri. (4. Basım)* Pegem A Yayıncılık.

Chen, C., Chen, Y., & Cheng, K. (2005). A study on comparing the objective model in curriculum planning between Taiwan and America, 1–12. Retrieved from http://rnd2.ncue.edu.tw/ezcatfiles/b004/img/img/316/96-1-8p.pdf

Cruickshank, V. (2020). Considering Tyler's Curriculum Model in Health and Physical Education. *Journal of Education and Educational Development, 5*(1). Retrieved from https://jmsnew.iobmresearch.com/index.php/joeed/article/view/156

Creswell, J. W. (2021). *Nitel araştırma yöntemleri: Beş yaklaşıma göre nitel araştırma ve araştırma deseni*. (Çev.Ed. M. Bütün ve C.B. Demir). Siyasal Kitabevi.

Çevik, H. (2020). *Evaluation of primary school science curriculum* (Unpublished doctoral dissertation). Gazi University

Demirel, Ö. (2009). Kuramdan Uygulamaya Eğitimde Program Geliştirme. Pegem Yayınları.

Değirmenci, U. (2007). *Teacher's view about practising new teaching curriculum of science and technology lesson of 4th, 5th and 6th grades in elementary school* (Unpublished master thesis). Gazi University

Ekinci, R. & Eroğlu Doğan, E. (2020). Evaluation of the studies about teachers' views on science education curriculum. *Journal of Social and Humanities Sciences Research, 7* (53), 1283-1291. https://doi.org/10.26450/jshsr.1880

Erden, M. (1998). *Eğitimde Program Değerlendirme*. Anı Yayıncılık.

Erdoğan, Y. (2019). *The comparison of curriculum in science lesson in Turkey and Japan* (Unpublished master thesis). Sakarya University

Fitzpatrick, J. L., Sanders, J. R. & Worthen, B. R. (2010). *Program Evaluation: Alternative Approaches and Practical Guidelines (4th ed.)*. Pearson, New York.

Ercan, F. (2007). *Views on 2004 4th and 5th grades science and technology course instruction program* (Unpublished master thesis). Abant İzzet Baysal University

Gedik, N. B. (2017). *Evaluation of elementary school third grade science course curriculum based on teachers' view* (Unpublished master thesis). Adıyaman University

Gündoğdu, Z. (2022). *Investigation of 2018 Science curriculum 5-8th grade acquisitions according to the Revised Bloom's Taxonomy and teachers' views about the curriculum* (Unpublished master thesis). Kastamonu University

Ibeh, A. I. (2022). Curriculum theory by Ralph Tyler and its implication for 21st century learning. *UNIZIK Journal of Educational Research and Policy Studies,* 52–61.

Karaman, P., Karaman, P., Karaman, A., Karaman, A. (2016). Opinions of science teachers about the revised science education program. *Erzincan University Journal of Education Faculty, 18*(1), 243-269. https://doi.org/10.17556/jef.65883

Karataş, D. (2022). *Evaluation of primary school 3th and 4th grade science education curriculum* (Unpublished master thesis). Hatay Mustafa Kemal University

Koca, M., Karabulut, B., & Türkoğlu, İ. (2021). The opinions of science teachers about the updated 2018 science curriculum: The case of Malatya and Diyarbakır. *Firat University Journal of Social Sciences, 31*(2), 717-730. https://doi.org/10.18069/firatsbed.823831

Kotluk, N. & Yayla, A. (2016). An evaluation of high school 9th grade physics curriculum according to tyler's objective based evaluation model. *Bolu Abant Izzet Baysal University Journal of Faculty of Education, 16* (4), 1832-1852. Retrieved from https://dergipark.org.tr/en/pub/aibuefd/issue/28550/304599

Mobit, M. O., Elit, L., Palmer, D. D., Palmer, N. L., & Fanfon, T. N. (2024). Curriculum mapping evaluation of a Tyler model designed physiotherapy curriculum of the Baptist institute of health science in Cameroon. *Cogent Education, 11*(1). https://doi.org/10.1080/2331186X.2024.2329367

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.

Ministry of National Education (MoNE], (2005). Elementary science and technology curriculum.

Ministry of National Education [MoNE], (2013). Science curriculum (Primary and secondary school grades 3, 4, 5, 6, 7 and 8).

Ministry of National Education [MoNE], (2018). Science curriculum (Primary and secondary school grades 3, 4, 5, 6, 7 and 8).

Ministry of National Education [MoNE], (2024). *Turkey Century Education Model Teaching Programs Common Text.*

Ornstein, C. A. ve Hunkins, P.F. (1988). *Curriculum: Foundations, Principles and Issues.* New Jersey: Prentica Hall.

Özcan, Ö., Oran Ş. & Arık S. (2018). The comparative study of 2013 and 2017 year's science education curricula in terms of teacher views. *Başkent University Journal Of Education, 5* (2),156-166.

Özdemir, Y. D. D. S. M. (2009). Curriculum evaluation in education and examination of the curriculum evaluation studies in Turkey (ss.126-149). *Van Yüzüncü Yıl University Journal of Education, 6*(2), 126-149.

Polat Tan, G. (2019). *The opinions of science teachers about the 5th grade science curriculum* (Unpublished doctoral dissertation). Hacettepe University

Saraç, E., & Yıldırım, M. S. (2019). Teachers' views on science course curriculum of the year 2018. *Academy Journal of Educational Sciences, 3*(2), 138-151. https://doi.org/10.31805/acjes.641002

Sönmez, V., & Alacapınar, F. G. (2015). Örnekleriyle eğitimde program değerlendirme. Ankara: Anı Yayıncılık.

Stufflebeam, D. L., Coryn, & Chris, L. S. (2014). *Research method for social sciences: Evaluation Theory, Models and Applications.* Jossay-Bass.

Toraman, S. & Alcı, B. (2013). Science and technology teachers' opinions about renewed science lesson curriculum. *EKEV Academy Journal, 17* (56), 11-22. Retrieved from https://dergipark.org.tr/en/pub/sosekev/issue/71255/1141953

Ulu, M. (2016). *Evaluation of science course teaching program according to the teacher views (Kırıkkale sample)* (Unpublished doctoral dissertation). Kırıkkale University

Uşun, S. (2016). *Eğitimde program değerlendirme: Süreçler, yaklaşımlar ve modeller*. Anı Yayıncılık.

Ünal, F. (2012). Evaluation of social studies: "Adventures of Democracy" chapter at 6th grade. *Mehmet Akif Ersoy University Journal of Education Faculty, 1* (22), 33-50 . Retrieved from https://dergipark.org.tr/tr/pub/maeuefd/issue/19395/205981

Varış, F. (1996). Eğitimde Program Geliştirme: Teori ve Teknikler. Ankara: Alkım Yayınevi.

Yıldırım, N. & Güngör-Akgün, Ö. (2015). Opinions of the third grade classroom teachers about the altered science course. *Ahi Evran University Journal of Kırşehir Education Faculty (KEFAD), 16* (2), 199-218. Retrieved from https://dergipark.org.tr/en/pub/kefad/issue/59450/854109

Yıldırım, B. (2018). *Evaluation of 2013 5th grade science education curriculum by using context-input-process-product (CIPP) model* (Unpublished doctoral dissertation) Fırat University

Yolcu, O. (2019). *Examining of secondary school science curriculum in terms of teacher autonomy based on stufflebeam evaluation model* (Unpublished doctoral dissertation). Adnan Menderes University

Yüksel, İ. (2010). *Development of Turkish program evaluation standards* (Unpublished doctoral dissertation), Anadolu University

Genişletilmiş Türkçe Özet

Bu çalışmada Tyler'ın hedefe dayalı değerlendirme modeli kullanılmıştır. Modelin temelinde eğitimde ulaşılması gereken hedefler yer alır. İlgili öğretim programının belirlenen hedeflerinin uygulama sonucunda ne düzeyde gerçekleştiğinin belirlenmesi üzerine kurulmuştur (Tyler, 1981; aktaran Aslan ve Erden, 2018). Programın etkililiği hakkında karar verilirken hedeflerin ne düzeyde gerçekleştirilebildiğine bakılır. Ulaşıl(a)mayan hedefler var ise nedenleri için öğrenme yaşantıları irdelenir. Programın değerlendirilme sürecinde, ortaya çıkan eğitsel sonuçlarla amaçlar karşılaştırılır ve bu amaçlara ne ölçüde ulaşıldığı tespit edilir(Ahn, 2018). Bu süreçte testler, anketler, okul kayıtları gibi değerlendirme araçlarının yanı sıra nitel veri toplama araçları da kullanılabilir (Kotluk ve Yayla, 2016). Alanyazında bu modele dayalı olarak farklı branşlara yönelik bazı program değerlendirme çalışması gerçekleştirilmiştir (Aslan ve Çakır, 2017; Kotluk ve Yayla, 2016; Ünal, 2011). Güncel fen bilgisi dersi öğretim programına (FBDÖP) yönelik ise Tyler'ın hedefe dayalı değerlendirme modeli temelinde çok az sayıda çalışma yer almaktadır. Buna göre araştırmadan elde edilen sonuçların FBDÖP değerlendirme alanyazınına karşılaştırmalı ve önemli katkılar sunduğu düşünülmektedir. Bununla birlikte, veri toplama sürecinde açık uçlu yapıda verilerin elde edilmesiyle daha derinlikli sonuçlara ulaşılmıştır. Bu derinlikli veri toplama süreci sınıf düzeyi açısından da dikkate alınmış ve FBDÖP'ün uygulandığı tüm sınıf düzeylerinin yüzeysel değerlendirilmesi yerine tek bir sınıf düzeyi ayrıntılı olarak irdelenmiştir. Bu kapsamda araştırmada, ortaokul 6. FBDÖP'ün Tyler'ın hedefe dayalı değerlendirme modeli temelinde öğretmen görüşlerine göre değerlendirilmesi amaçlanmıştır.

Yöntem

Araştırma Modeli

Fen bilgisi öğretmenlerinin görüşlerine göre, 6. FBDÖP'ü değerlendirmeyi amaçlayan bu araştırmada temel nitel araştırma yöntemi benimsenmiştir. Temel nitel araştırma deseni, katılımcıların yaşamlarını nasıl yorumladıkları, dünyayı nasıl algıladıkları ve deneyimlerine ne anlam kattıkları üzerinde yoğunlaşır ve bu alandaki bilgilere ulaşmayı amaçlar (Merriam and Tisdel, 2015). Bu çalışma, FBDÖP'ün uygulayıcıları ve paydaşı olan öğretmenlerin bu öğretim programını nasıl algıladıklarını ve kendi deneyimlerinin neler olduğunu ortaya koymak amacıyla gerçekleştirildiği için temel nitel araştırma yöntemi tercih edilmiştir.

Çalışma Grubu

Tesadüfî olmayan örnekleme yöntemlerinden uygun örnekleme yöntemiyle seçilen çalışma grubu, 6. sınıf düzeyinde fen bilimleri dersi vermiş olan 30 öğretmenden oluşmaktadır. Zaman, para ve işgücü açısından var olan sınırlılıklar nedeniyle tercih edilen uygun örnekleme yöntemi Büyüköztürk ve diğ., (2009) göre, örneklemin kolay ulaşılabilir ve uygulama yapılabilir birimlerden seçilmesi gerekir. Buna göre, çalışmanın gerçekleştirildiği Uşak ilinde zaman, işgücü, ulaşılabilirlik ve hızlı dönüt alabilme

imkanları açısından araştırmacıların kolay veri toplayabileceğine inandığı okullardaki öğretmenler çalışma grubunu oluşturmuştur.

Veri Toplama Süreci

Fen bilgisi öğretmenlerinin 6. sınıf FBDÖP'e yönelik görüşlerini belirlemek için araştırmacılar tarafından geliştirilen 12 açık uçlu sorudan oluşan yarı yapılandırılmış görüşme formu kullanılmıştır. Yarı yapılandırılmış görüşme formunun hazırlanma sürecinde ilgili alanyazın incelenmiş ve form taslağına yönelik 3 alan uzmanının görüşleri alınmıştır. Uzman görüşleri sonrası son hali verilen form, Tyler'ın hedefe dayalı program değerlendirme yaklaşımındaki hedef, öğrenme yaşantıları ve değerlendirme olmak üzere üç boyutu yansıtan sorulardan oluşmaktadır.

Verilerin Analizi

Çalışmada elde edilen veriler betimsel analize tabi tutulmuştur. Bu yönteme göre, görüşme formundaki sorulara verilen cevaplardan kod ve kategoriler oluşturulmuştur. Bu süreçte her bir soruya verilen cevaplar üç araştırmacı tarafından da ayrı ayrı kodlanmış ortaya çıkan kodlar karşılaştırılarak aralarındaki uyuma ve güvenirlik değerlerine bakılmıştır. Her bir soru için Miles ve Huberman (1994)'ın ortaya koyduğu [Görüş birliği/(Görüş birliği+Görüş ayrılığı)] formülü dikkate alınmış ve kodların uyum oranı 0,90 olarak tespit edilmiştir.

Bulgular

Tyler Program Değerlendirme Modelinin 'Hedef' Boyutu için FBDÖP'e Yönelik Öğretmen Görüşleri

29 öğretmen FBDÖP'ün açık ve anlaşılır olarak yazıldığını belirtmiştir. 1 öğretmen ise FBDÖP'ün açık ve anlaşılır olmadığını belirtmiştir.

12 öğretmen FBDÖP'ün matematik öğretim dersi öğretim programıyla ilişkili olduğunu belirtmiştir. 7 öğretmen her iki öğretim programını kısmen ilişkili bulmuştur. 10 öğretmen ise FBDÖP ile, Matematik Öğretim Dersi Öğretim Programının ilişkili olmadığını belirtmiştir. 1 öğretmen ise fikir beyan etmemiştir.

15 öğretmen FBDÖP kazanımlarının öğrenci seviyesine uygun olduğunu belirtmişlerdir. 11 öğretmen ise kazanımların öğrenci seviyesine kısmen uygun olduğunu belirtmiştir. 4 öğretmen ise kazanımların öğrenci seviyesine uygunluğu hakkında olumsuz görüş bildirmiştir.

20 öğretmen FBDÖP'ün öğrencilerin fen okuryazarı birey olmasına katkı sağladığı yönünde görüş belirtirmiştir. 4 öğretmen FBDÖP'ün öğrencilerin fen okuryazarı birey olmasına kısmen katkı sağladığını belirtirken 6 öğretmen ise aksi yönde görüş belirtmiştir.

Tyler Program Değerlendirme Modelinin Öğrenme Yaşantıları Boyutu için FBDÖP'e Yönelik Öğretmen Görüşleri

Öğretmenlerin çoğunluğu FBDÖP'ün öğrenciyi merkeze alan bir yapıda düzenlendiğini belirtmiştir. 5 öğretmen kısmi öğrenci merkezli durumlara değinmiştir. 2 öğretmen FBDÖP'ün öğrenciyi merkeze almayan yapıda olduğunu belirtmiştir. 3 öğretmen ise bu konuda herhangi bir görüş beyan etmemiştir.

FBDÖP'ün uygulanması sürecinde kullanılan öğretim yöntem ve teknikleri için 19 öğretmen, araştırma-sorgulamaya dayalı yöntemleri kullanmaya imkan sağladığını belirtmiştir. 7 öğretmen FBDÖP'ün uygulanması sürecinde kısmi araştırma-sorgulama süreçleri benimseyebildiklerini belirtmişlerdir. 4 öğretmen ise geleneksel öğretim yöntem ve tekniklerini kullandıklarını belirtmişlerdir.

16 öğretmen fen bilgisi derslerinde kullanılan öğretim yöntem ve teknikleri ile FBDÖP kazanımlarının gerçekleştirilebileceğini belirtmiştir. 11 öğretmen ise kısmi düzeyde bu görüşleri beyan etmişlerlerdir. 2 öğretmen bu görüşlerin aksi yönünde düşüncelerini belirtirken 1 öğretmen ise fikir beyan etmemiştir.

13 öğretmen fen bilgisi derslerinde FBDÖP'te yer alan etkinliklere yer verdiklerini belirtmişlerdir. 13 öğretmen ise bu görüşe kısmen katıldıklarını beyan etmişlerdir. 4 öğretmen ise aksi yönde görüş belirtmişlerdir.

Tyler Program Değerlendirme Modelinin 'Değerlendirme' Boyutu için FBDÖP'e Yönelik Öğretmen Görüşleri

17 öğretmen yaptıkları sınavlar sonucunda öğrencilerin FBDÖP kazanımlarına ulaşabildiğini düşünmektedir. 11 öğretmen, yapılan sınavlara göre FBDÖP kazanımlarına öğrencilerin kısmen ulaşabildiğini belirtmişlerdir. 1 öğretmen bu düşüncelerin aksi yönünde düşünce belirtirken, 1 öğretmen ise herhangi bir kanaat belirtmemiştir.

FBDÖP'te yer alan ölçme değerlendirme araçları için, 13 öğretmen fen bilgisi dersleri için uygun olduğunu belirtmiştir. 8 öğretmen bu görüşe kısmen katılırken 9 öğretmen ise aksi yönde görüş belirtmiştir.

Fen bilgisi derslerinde kullandıkları ölçme değerlendirme araçları için 15 öğretmen kazanımları yeterli düzeyde ölçtüğünü belirtmişlerdir. 12 öğretmen bu görüşe kısmi düzeyde katıldıklarını beyan etmiştir. 3 öğretmen ise aksi yönde görüş belirtmiştir.

12 öğretmen fen bilgisi derslerindeki ölçme değerlendirme etkinliklerinin öğrenme süreçlerini de desteklediğini belirtmiştir. 11 öğretmen ise kısmen desteklediğini belirtmiştir. 7 öğretmen ise aksi yönde görüş belirtmiştir.

Ethics Committee Approval: The research was conducted with the permission of the Ethics Committee of Uşak University, approved by the decision numbered " 2023-146" taken at the meeting no: 07 dated 05.07.2023

Informed Consent: Informed consent was obtained from all participants.

Peer Review:

Authors' Contribution: All authors contribute equally.

Conflict of Interests: The authors have no conflict of interest to disclose.

Financial Disclosure: No financial support was received for the research.

Acknowledgement: We would like to thank the study group science teachers.

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Journal of Qualitative Research in Education
Eğitimde Nitel Araştırmalar Dergisi

Influential Educators of the History of Turkish Education through the Evaluations of the Pre-service Teachers: A Profile Study

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To cite this article:

Yazıcı, S., (2025 Influential Educators of the History of Turkish Education through the Evaluations of the Pre-service Teachers: A Profile Study. *Journal of Qualitative Research in Education*, 32-59. Doi: 10.14689/enad.41.1895

Abstract

The study aimed to examine the leading educators of the History of Turkish Education and their influential characteristics through the evaluations of teachers and to reveal an educator profile on a historical basis. With reference to the qualitative research, a phenomenology design pursuing to understand human experience was used in the study. The study group was determined using criterion sampling related to purposive sampling, consisting of 36 pre-service teachers who took the History of Turkish Education course from the researcher and prepared the reports in accordance with the criteria in the fall semester of the 2022-2023 academic year. The pre-service teachers' reports, including information about the phenomenon that had aimed to be investigated, were used as the data collection tool. The data were analysed through the content analysis method. When the pre-service teachers' evaluations were examined, specific properties of influential educators were identified. They were their personality, educator qualifications, level of recognition, ideas beyond the time, scientific aspects, being well-known and guiding, religious qualifications, political aspects, farsightedness, and being progressive. These properties contributed to presenting an influential educator profile during the historical process.

Keywords: Influential educator, Pre-service teacher, History of Turkish Education, Properties of educator

About the Article

Submitted date: Jan. 05, 2024
Revised Date: Jan. 05, 2025
Accepted Date: Jan. 28, 2025

Article Type:
Review

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Introduction

The major goal of the studies on the history of education is to reveal the views, institutions, and practices of education developed by different countries and to analyse their systems to train people (Akyüz, 2004). A related discipline, history, tries to turn historical events into a concrete reality by dealing with rulers, clergy, scientists, artists, commanders, or heroes who influenced humanity and society, and it does not deal with every event and person in the past (Oruç, 2019). The history of education aims to reveal the progress and needs of different periods and to describe the emotions of that age by researching the personalities and societies (MacMillan, 2017). Understanding these people who left their mark on history and made innovations (Bektaş, 2020), and who were nourished by different sources of ideas and lived in different social and political environments, will help understand the historical periods (MacMillan, 2017; Tokdemir, 2017).

Historical biographies are tools that make the social and cultural characteristics of the periods clearer and more understandable, facilitate the transfer of events and characteristics of the periods, and assist the analyses of historical periods (Oruç, 2019). Such biographies are frequently employed in the education of history to contribute to the understanding of various approaches and periods (Elban, 2018). These biographies also facilitate understanding their societal roles (Deniş Çeliker and Erduran Avcı, 2015). This is because learning about the lives and actions of these individuals provides students with a deeper understanding of the events and their historical context. Studying the biographies of historical figures who played an active role in significant events is also very influential in making students' knowledge permanent (Deniz, 2011; 37). Presenting biographies prepared in line with scientific principles to students will provide an opportunity for evaluation using historical thinking skills, which is one of the main purposes of history teaching (Dere and Ülker, 2022). Identifying important characteristics of historical figures will concretize knowledge (Avcu and Çelik, 2022). The achievements of these people, the difficulties they faced, their perseverance, and their determination to overcome them will affect students' role modeling (Arıcı, 2020).

The addition of Turkish History of Education to the programs of education faculties aims to contribute to the awareness about the changes and development in education from past to present based on historical accumulation. Pre-service teachers can make their research and evaluation processes more active by examining their professional development on a historical basis. Furthermore, by approaching professional developments from a historical perspective, pre-service teachers will be able to relate to and discuss past and current events. When all these are considered, it is understood that merely transferring information should not be the sole goal of the course (Arıkan, Ünver and Süzer, 2007).

Studies on the history of Turkish education courses are not very frequent. The existing studies deal with the content and significance of the course (Arıkan, Ünver and Saraç

Süzer, 2007; Erdem, 2013), student attitudes towards the course (Akhan and Altıntaş, 2019; Güçlü and Bozgeyikli, 2016; Kamer and Şimşek, 2016), constructing perceptions and expectations about the course (Şahin, Ellez, and Günter, 2007), and its effects on skill development (Karagöz, 2020). There are studies on leading historical figures. These studies deal with the coverage of the historical figures in textbooks (Dere and Ülker, 2021), relationships between history and education (Elban, 2018), creating images (Bektaş and Şeker, 2020), using historical figures to provide role models for students (Faiz and Karasu Avcı, 2019), and to reinforce the sense of citizenship among students (Karagözoğlu, 2018). However, there is no study on Turkish educators as historical figures. It is thought that a study on educators will both contribute to the perception and meaning of historical periods and reveal impressive educator profiles. Therefore, the study attempts to determine the leading educators and their impressive characteristics through the evaluations of pre-service teachers and to answer the following research questions:

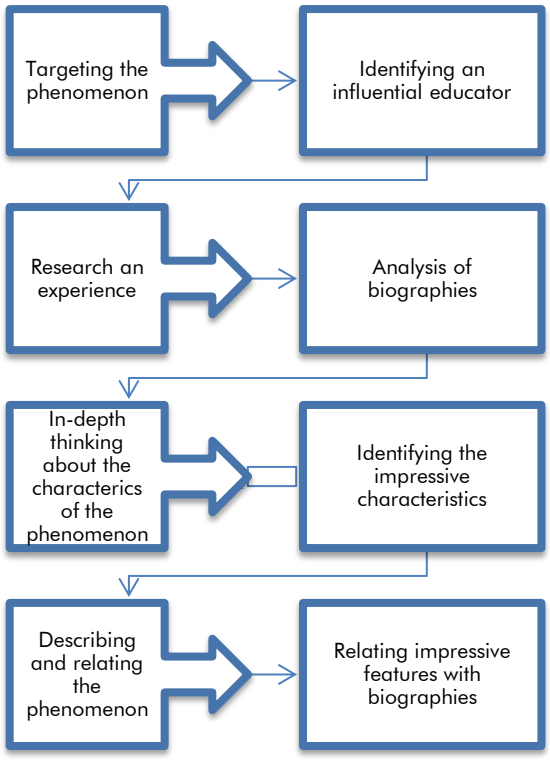
- Who are the influential educators of the Turkish-Islamic period, and what are their characteristics?
- Who are the influential educators of the classical period, and what are their characteristics??
- Who are the influential educators of the modernist period, and what are their characteristics?
- Who are the influential educators of the early Republic period, and what are their characteristics?
- What are the profiles of these leading educators?

Method

Phenomenology design, one of the qualitative research methods, was used in the study. The main characteristic feature of phenomenology, which emerged from a philosophical movement with the aim of "understanding human experience," is to make sense of "experience." Therefore, phenomenological research is a method that aims to focus on the "phenomenon" to be researched, to reveal Participants' perceptions and perspectives on this phenomenon, how they make sense of it, how they experience it, and how they describe these experiences. From this point of view, it will be ensured that pre-service teachers produce knowledge through the phenomena they experience in the History of Turkish Education course and analyze this knowledge through the basic meanings and experiences of their own understanding (Tekindal and Uğuz Arsu, 2020). Through this process the characteristics of influential educators are uncovered. The phenomenological research steps developed by Miller (2003) were used in the study. These are research, description, and attribution. These steps are shown in Figure 1.

Figure 1

Phenomenological Research Steps



The steps of phenomenological research, as shown in Figure 1, are as follows:• Research: Addressing a phenomenon of interest and attention and examining biographies to uncover lived experience

•Description: Identifying impressive traits by reflecting on the themes that characterize the phenomenon from biographies

•Relating: Relating the reasons why the phenomenon is impressive based on biographies.

Participants

Participants of the study were 45 pre-service teachers attending a teaching training program at Afyon Kocatepe University during the fall semester of the academic year of 2022-2023. They were between 20 and 22 years old. Of them 27, were female and 18 males. They were identified using the criterion sampling technique, which is part of the purposeful sampling method. Therefore, participants had to meet certain criteria to take part in the study (Yıldırım and Şimşek, 2013). The criteria used in the sampling were taking the Turkish History Education course from the researcher and subbmitting a report on the course. Only those who met these two criteria were included in the study.

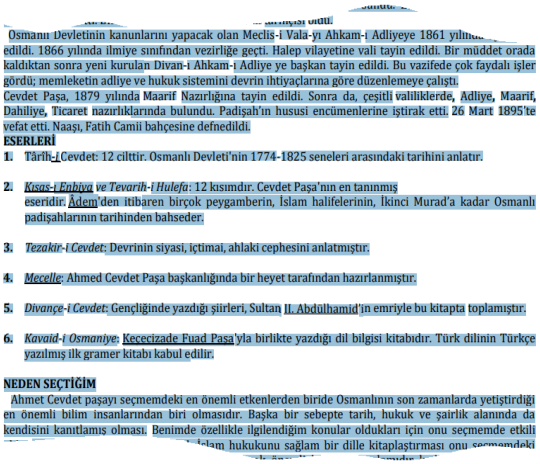
Data Collection Tools

The Turkish Education History lesson reports of preservice teachers were accepted as a data collection tool. In this type of analysis, written materials containing information about the targeted phenomenon or phenomena are evaluated (Yıldırım and Şimşek, 2013). Documents that may contain personal or public records are valuable data sources for qualitative research (Creswell, 2013). In the data collection process, the 14-week Turkish Education History course subjects were grouped under the titles of political, social, and cultural characteristics. For this purpose, three textbooks written on the History of Turkish Education were examined. As a result, the main periods were identified as the acceptance and spread of Islam, the establishment and rise of the Ottoman Empire, the Tanzimat and Constitutional Monarchy, the War of Independence and the transition to multi-party life. After the review by an expert on the history of education, these were divided into the following four periods: the Turkish-Islamic Period, the Classical Period, the Modernist Period and the Early Republic Period. Then the pre-service teachers selected as Participants of the study were asked to do research about the educators who lived in the relevant periods, write their biographies, and express the features they found impressive. The outcome of their writing assignment was submitted as reports. A total of 89-page reports were obtained from 36 participants. From these reports, the sections in which the impressive characteristics of the educators were given were analysed to gather the data.

Below are the parts of the reports submitted by Participants PT34 and PT25 that were used for data collection (Figure 2).

Figure 2

Interview forms with Participants PT34 and PT25



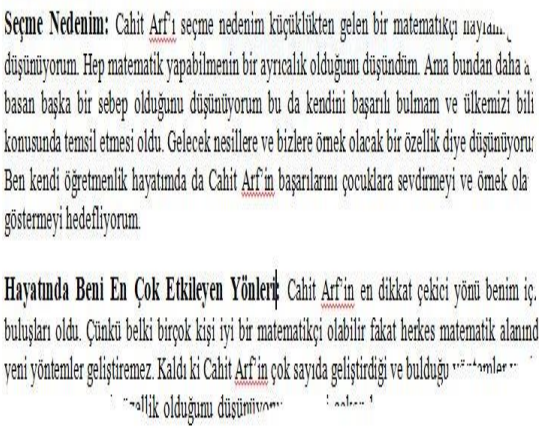
Osmanlı Devletinin kanunlarını yapacak olan Meclis-i Vala-yı Ahkam-i Adliyeye 1861 yılın... edildi. 1866 yılında ilmiye sınıfından vezirliğe geçti. Halep vilayetine vali tayin edildi. Bir müddet orada kaldıktan sonra yeni kurulan Divan-ı Ahkam-ı Adliye ye başkan tayin edildi. Bu vazifede çok faydalı işler gördü; memleketin adliye ve hukuk sistemini devrin ihtiyaçlarına göre düzenlemeye çalıştı.
Cevdet Paşa, 1879 yılında Maarif Nazırlığına tayin edildi. Sonra da, çeşitli valiliklerde, Adliye, Maarif, Dahiliye, Ticaret nazırlıklarında bulundu. Padişah'ın hususi encümenlerine iştirak etti. 26 Mart 1895'te vefat etti. Naaşı, Fatih Camii bahçesine defnedildi.

ESERLERİ

1. Tarih-i Cevdet: 12 cilttir. Osmanlı Devleti'nin 1774-1825 seneleri arasındaki tarihini anlatır.
2. *Kısas-ı Enbiya ve Tevarih-i Hulefa*: 12 kısımdır. Cevdet Paşa'nın en tanınmış eseridir. Âdem'den itibaren birçok peygamberin, İslam halifelerinin, İkinci Murad'a kadar Osmanlı padişahlarının tarihinden bahseder.
3. *Tezakir-i Cevdet*: Devrinin siyasi, içtimai, ahlaki cephesini anlatmıştır.
4. *Mecelle*: Ahmed Cevdet Paşa başkanlığında bir heyet tarafından hazırlanmıştır.
5. *Divançe-i Cevdet*: Gençliğinde yazdığı şiirleri, Sultan II. Abdülhamid'in emriyle bu kitapta toplamıştır.
6. *Kavaid-i Osmaniye*: Kececizade Fuad Paşa'yla birlikte yazdığı dil bilgisi kitabıdır. Türk dilinin Türkçe yazılmış ilk gramer kitabı kabul edilir.

NEDEN SEÇTİĞİM

Ahmet Cevdet paşayı seçmemdeki en önemli etkenlerden biride Osmanlının son zamanlarda yetiştirdiği en önemli bilim insanlarından biri olmasıdır. Başka bir sebepte tarih, hukuk ve şairlik alanında da kendisini kanıtlamış olması. Benimde özellikle ilgilendiğim konular oldukları için onu seçmemde etkili ...lam hukukunu sağlam bir dille kitaplaştırması onu seçmemdeki



Seçme Nedenim: Cahit Arf'ı seçme nedenim küçüklükten gelen bir matematikçi hayalim... düşünüyorum. Hep matematik yapabilmenin bir ayrıcalık olduğunu düşündüm. Ama bundan daha a... basan başka bir sebep olduğunu düşünüyorum bu da kendini başarılı bulmam ve ülkemizi bili... konusunda temsil etmesi oldu. Gelecek nesillere ve bizlere örnek olacak bir özellik diye düşünüyoru... Ben kendi öğretmenlik hayatımda da Cahit Arf'in başarılarını çocuklara sevdirmeyi ve örnek ola... göstermeyi hedefliyorum.

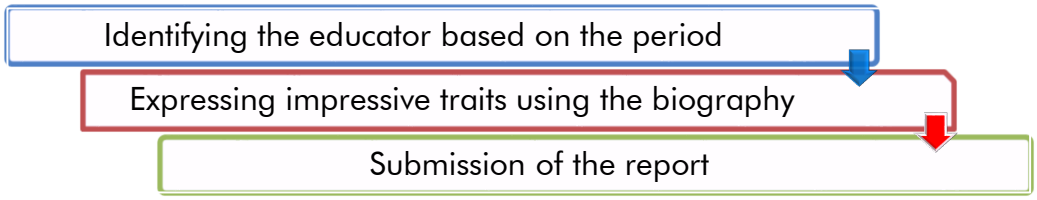
Hayatında Beni En Çok Etkileyen Yönleri: Cahit Arf'in en dikkat çekici yönü benim iç... buluşları oldu. Çünkü belki birçok kişi iyi bir matematikçi olabilir fakat herkes matematik alanınd... yeni yöntemler geliştiremez. Kaldı ki Cahit Arf'in çok sayıda geliştirdiği ve bulduğu ...temler... ...lik olduğunu düşünüyo...

Data Analysis

As mentioned above, the data collected were examined using the content analysis. In the analysis, impressive traits of the educators cited by participants were identified. These traits were then coded. They were put under different categories to uncover some concepts related to them (Tavşancıl and Aslan, 2001, s.22). The inclusion criteria were identified to ensure the content validity of the analysis (figure 3). These are given as follows:

Figure 3

Inclusion Criteria



The data collected were analysed and it was found that six participants could not develop a connection between the biography they submitted and the reasons for identifying leading educators. Additionaly three participants did not submit their reports until the submission deadline. Therefore, 36 reports prepared by participants were included in the data analysis process. Participants were numbered and coded as PT1, PT2…PT36. Each report was read, and the related sections were identified.

Validity and Reliability

The author herself checked the accuracy of the research findings, controlling both the data analysis and data collection process (Creswell and Miller, 2000). However, conducting the research by a single person may cause the possibility of reaching different conclusions based on the collected data and making some subjective assumptions. This may have a negative impact on the degree to which the results represent reality (Yıldırım and Şimşek, 2013). In order to avoid these negative conditions a participation confirmation process was adopted. It is generally used to achieve reliability and involves the work of a participant group to confirm or reject the data accuracy and interpretation accuracy (Creswell and Miller, 2000). Through this process, the researcher will be able to avoid personal experiences and prejudices due to the nature of phenomenological research (Creswell, 2013). Therefore, the participant group actively participated in both the data collection process and analysis and in verifying the accuracy of interpretations and conclusions. During the process the following activities were carried out:

•The data collected from each participant were summarized and evaluated, and then themes were created.

• Participants were given an opportunity to review the data and add or edit more information if they wanted.

• Participants checked the accuracy and completeness of the analyses.

However, this technique has some disadvantages which may have negative effects on the accuracy and consistency of the findings (Başkale, 2016). In order to avoid such problems, participants were divided into nine groups with four persons. The groups were asked to analyse and discuss the consistency between codes and themes and the accuracy of the interpretations within one class hour (Candela, 2019). Reliability across codes was calculated using Miles and Huberman's (1994:64) formula: [reliability=Agreement/(Agreement+Disagreement)]. The reliability coefficient was found to be .89.

Findings

In this section, the findings regarding the data obtained as a result of the analyses are discussed in terms of frequency. Tables containing these frequencies are presented. This section also provides direct reports from participants.
The findings about the views of participants regarding the leading educators of the period during which Turks adopted Islam are presented in Table 1.

Table 1.

Leading Educators of the Turkish Islamic Period

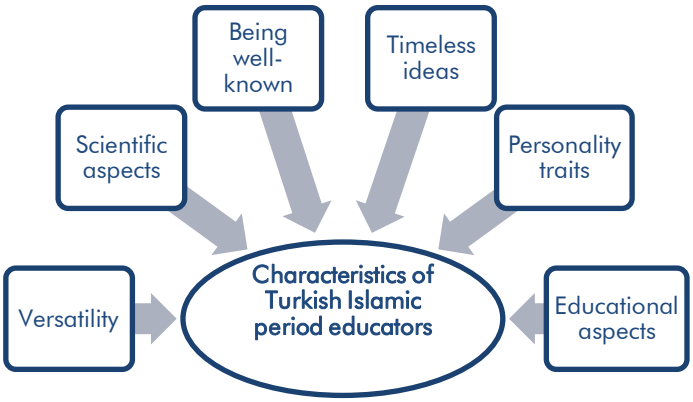
	Educators	Frequency	Participants
Turkish Islamic Period	Farabi	8	PT1, PT9, PT14, PT16,PT17, PT21, PT25, PT27
	İbn-i Sina	14	PT2, PT4, PT7, PT8, PT11, PT12, PT13, PT18, PT22, PT23, PT26, PT31, PT32, PT34
	Ghazali	8	PT3, PT10, PT15,PT19, PT24, PT29, PT33, PT36
	Hoca Ahmet Yesevi	5	PT5, PT20, PT28, PT30, PT35
	Mevlana	1	PT6
Total	**5**		**36**

As can be seen in Table 1, participants provided the following figures as the leading educators of the Islam period: İbn-i Sina (f=8), Farabi and Ghazali (f=8), Hoca Ahmet Yesevi (f=5), and Mevlana (f=1).

The categories developed from participant views about the influential characteristics of the leading educators of the Turkish Islamic Period are given in Figure 4.

Figure 4.

Categories on the Influential Characteristics of the Leading Educators in the Turkish Islamic Period



In Figure 4, the influential characteristics of the prominent educators of the Turkish Islamic period are given. The pre-service teachers emphasised the educators' educational features, personality traits, being well-known, timeless ideas, scientific aspects, and versatile features.

Those cited in terms of their educational aspects include İbn-i Sina, Farabi, and Ghazali. Their significant educational views were reported as follows: mentioning a certain age to start formal education, emphasizing childhood period as a special period, the role of toys and games in education, the responsibilities of parents and teachers in education, the necessity to consider certain teaching principles in education, and the significance of moral development in childhood period.

One of participants, PT7, was affected by İbn-i Sina's view that children should start formal education at age six and reported *"…(he was) the founding figure of the pre-school education…"*. Another participant, PT3, emphasized Ghazali's reference to the childhood and stated *"…he managed to label this period as a distinct developmental period…"*. Participant PT19 mentioned the significance attached by Ghazali to the childhood period in personality development. Ghazali's view that both parents and schools were significant in education was given as an impressive educational approach by participant PT29. The report of PT2 who emphasized the view of İbn-i Sina about the significance of games in learning as a necessity, was as follows: *"…Today, the importance and role of play in children's learning, especially in pre-school education, is obvious. İbn-i Sina expressed this view quite well…."*. Farabi's opinion that the principle of from easy to difficult should be used in teaching influenced PT1. Participant PT14 stated that Farabi saw education as the source of happiness and made the following statement: *"Farabi stated that we can find happiness by doing good, and he based*

happiness on knowledge and education." İbn-i Sina's view that moral education should be given importance at a young age influenced PT13 who stated *"…It is impressive that he identified three principles in this regard: self-discipline, avoiding lies, and avoiding bad deeds. …"*. Ghazali's ideas, pointing out the importance of the child's moral education, influenced PT33, and for this participant, Ghazali's following view is in line with today's pedagogical understanding: When a child's good behaviour regarding good morals is observed, it should be appreciated and rewarded to make the child happy. İbn-i Sina's statement that children should acquire a profession in line with their tastes and abilities is impressive for PT8. Additionally, his views about ideal teachers are impressive for Participants PT12 and PT16. Of them, PT12 reported the following: *"…(for İbn-i Sina) a teacher has responsibilities such as being smart, loving his students, doing his job with pleasure, exhibiting moral behavior that will set an example for the students, being clean and tidy, and knowing the rules of etiquette…"*.

Participants also cited the personality traits of the leading educators of the period as impressive points. İbn-i Sina, Hoca Ahmet Yesevi and Farabi were found impressive by participants due to their success, intelligence, foresight, humility, openness to learning, and productivity, as well as their ability to cope with difficulties. Participant PT2 explained it as follows: *"İbn-i Sina's success is his superior intelligence, achieving great things at a young age, and his foresight."* Participant PT21 stated that he was impressed by Ibn Sina's determination and intelligence. Another participant, PT4 evaluated Ibn Sina's ability to produce ideas despite the lack of resources compared to today as an indication that he was a real genius. Participant PT20, who found it impressive that Hoca Ahmet Yesevi struggled with difficulties, stated that it was impressive that he managed to improve himself despite losing his family at a young age. Finding Farabi's determination to learn under difficult conditions impressive, participant PT24 stated that he worked as a gardener in Damascus, and even while doing this, he continued to study using candlelights and constantly read and wrote and that he continued to read and write at every opportunity, no matter what the circumstances. Another participant, PT27 reported that Farabi's modesty was impressive for him.

One of the study's findings is that the participants admire how the leading educators of the period remain well-known to this day. In this regard they cited İbn-i Sina, Hoca Ahmet Yesevi, Mevlana, Farabi, and Ghazali. Participant PT4 said that he was impressed by İbn-i Sina's respect even today and said that Farabi is still remembered with respect, and his works are used not only in the region where he lived but all over the world. Participant PT6 argued that Mevlana's philosophy and views are timeless and known all over the world. He stated that it is impressive that Mevlana's views and approach are still used in today's world. Farabi impressed both PT8 and PT14 due to being a pioneer in different fields. Naming some institutions after the leading educators impressed Participant PT5, and she stated she was a graduate of Eskişehir Hoca Ahmed Yesevi Anatolian High School. She realized that although she never knew him through such an assignment, she began to have some information about him. Regarding Ghazali, who was the teacher at the Nizamiye Madrasa, participant PT15 said, *"…It*

caught my attention that he was the head teacher of the most developed school in the world at that time." Participant PT22 stated that he found it impressive that İbn-i Sina was remembered with the title of the Master of Physicians and even the ruler of physicians, and that he achieved this *"...at a time when people of different religions and cultures were being killed because of their religious views and cultures..."* In a similar line, participant PT26 evaluated it as an impressive situation that the Western world translated Ibn Sina's works into Latin and used them as textbooks at their universities.

The following figures were regarded by participants as influential educators due to their timeless ideas: Mevlana, İbn-i Sina, Hoca Ahmet Yesevi and Ghazali. Mevlana, whose works still inspire people is impressive for Participant PT6. A similar view was expressed by Participant PT10 for Ghazali: It is impressive that his works are still used and still valid for today. About Hoca Ahmet Yesevi, whose views are still influential today, Participant PT20 said that Yesevism still maintains its importance today. Farabi, who supported the importance of happiness for human life, is an impressive educator for participant PT24.

The following figures were cited as influential educators based on their scientific aspects: Farabi, Ghazâli, İbn-i Sina, and Hoca Ahmet Yesevi. Ghazali's advice on the necessity of distinguishing correct from incorrect and expressing them in her works influenced participant PT19. Participants PT13 and PT26 found İbn-i Sina impressive because he treated diseases using positive sciences and applied special treatments for mental illnesses. PT17 stated that he was influenced by Farabi's statement that "*The greatest of virtues is knowledge.*" Ghazali's categorization of sciences into two as religious and rational and his descriptions about the soul attracted the attention of participant PT24. Participant PT29 found Ghazali's balanced use of physics and metaphysics in science impressive.

The following influential educators of the period were also given by participants as influential figures due to their versatility: Farabi, İbn-i Sina and Ghazali. Farabi's interest in music and astronomy apart from philosophy influenced the PT9, and his invention of the musical instrument called the qanun influenced PT25. While İbn-i Sina's interest in education other than medicine influenced PT13, Ghazali's interest in fields such as politics, medicine, and philosophy were expressed by PT15 as impressive.

Table 2 presents the views of participants about the leading educators of the classical period.

Table 2.

Leading Educators of the Classical Period

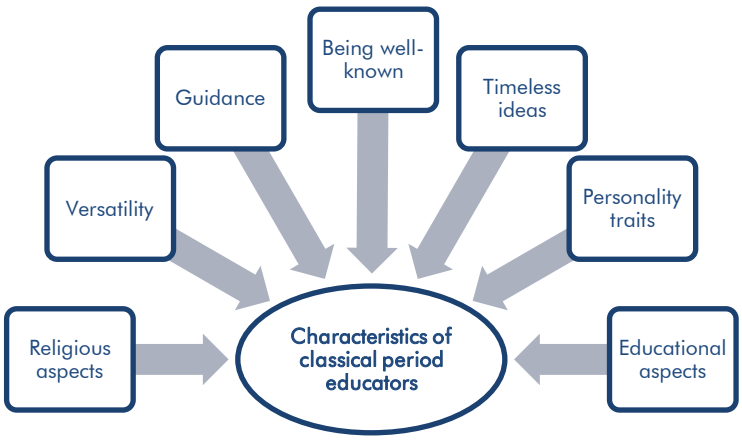
	Educators	Frequency	Participants
Classical Period	Akşemseddin	16	PT1, PT 2, PT4, PT8, PT9, PT10, PT11, PT12, PT14, PT22, PT25, PT26, PT30, PT31, PT32
	Şeyh Edebâli	8	PT3, PT5, PT7, PT13, PT15, PT19, PT29, PT36
	Kınalızade Âli Efendi	5	PT17, PT20, PT23, PT28, PT33
	Âli Kuşçu	1	PT6
	Katip Çelebi	3	PT16, PT21, PT24
	Taşköprîzâde (İsâmeddîn) Ahmed Bin Mustafa	1	PT34
	Ali bin Hüssein Amasi	2	PT27, PT18
Total	**9**		**36**

As can be seen in Table 2, participants provided the following figures as the influential educators of the classical period: Akşemseddin (f=16), Şeyh Edebâli (f=8), Kınalızade Âli Efendi (f=5), Katip Çelebi (f=3), Âli Kuşçu, Taşköprîzâde (İsâmeddîn) Ahmed bin Mustafa, and Ali bin Hüssein Amasi (f=1).

The categories developed from participant views about the impressive characteristics of the leading educators of the Classical Period are given in Figure 5.

Figure 5.

Categories on the influential characteristics of the leading educators in the Classical Period



In Figure 5, the influential characteristics of the prominent educators of the Classsical Period are given. The pre-service teachers emphasised the educators' educational aspects, personality traits, timeless ideas, being well-known, guidance, versatility, and religious aspects.

In terms of educational views, participants mentioned Akşemseddin, Kâtip Çelebi, Ali bin Hüssein Amasi and Kınalızade Âli Efendi. Their views about extra curricular education, educational problems, interaction between teachers and students are given as influential points. The views of Akşemseddin concerning the extracurricular activities were regarded by participant PT12 as impressive. The views of Katip Çelebi regarding the problems at madrasas are impressive for participant PT24. The views of Ali bin Hüssein Amasi on the interactions between teachers and students were regarded by participant PT27 as very influential, who stated "*…Under difficult conditions, he argued that teachers should treat students kindly and not engage in any behavior that would break their hearts.*" For participant PT28, Kınâlızade Âli Efendi is an educator with a personality in terms of science and ethics, and the same participant stated, "*…I have great faith that although his true value is not well understood, his value will be revealed through future studies, and this great scholar will be introduced to new generations …*"

The influential educators were also cited in terms of their personality traits such as Akşemseddin, Şeyh Edebâli and Kınâlızade Âli. Participants were influenced by the educators' guidance, opposition to injustice, and determination, as well as their intelligence. Participant PT2 found it impressive that Akşemseddin gained the love and respect of Fatih and that he helped Sultan Mehmet II the Conqueror during the conquest of Istanbul. Participant PT25 stated that his superior intelligence, understanding, and tireless work influenced him. Participant PT17 stated that he was impressed by Kınalızade Âli Efendi because "*..despite his soft and calm nature, he did not remain silent in the face of injustice...*". Participant PT3 described Şeyh Edebali as "*...a guiding, encouraging person and having a full character...*"

Participants cited the following as educators with timeless ideas: Akşemseddin, Kınâlızade Âli Efendi, Ali bin Hüssein Amasi and Şeyh Edebâli. Their emphasis on happiness, discovery of microbes, and orientation training were expressed as impressive features. Kınalızade Âli Efendi's view that a person should be happy both physically and spiritually influenced Participant PT17. Akşemseddin's statement that diseases are caused by microbes influenced Participants PT25 and PT26, and moreover, it was considered astonishing that he expressed these things under the poor conditions of that time. Participant PT27 found it impressive that Ali bin Hüssein Amasi made references to orientation in education in the 15th century.

The following educators were cited by participants in terms of being well-known: Şeyh Edebâli, Âli Kuşçu and Kâtip Çelebi. In this category, the factors given were visiting their tombs and knowing their works. Participant PT5 stated that she knows Şeyh Edebâli because she "*…visited his tomb in the hometown of her mother…*" Participant PT6 stated

that Âli Kuşçu "*…was a famous Turkish mathematician…*" and that he learned his work while studying at primary school. Participant PT21 reported that the analyses of Kâtip Çelebi's works in different countries impressed him.

In terms of being a guide, participants mentioned Akşemseddin and Şeyh Edebâli. The related qualities in this category are being an advisor to the rulers, being social leaders, their activities to develop identity and founding the philosophy of the countries.

For P1, P8 and P12, Akşemseddin's guiding the Ottoman Sultan Mehmet II to conquer Constantinople was found impressive. Participant PT4 considered him the most influential person in making Fatih Sultan Mehmet the Conqueror. Participants PT13, PT15 and PT19 regarded Şeyh Edebâli as very influential due to the fact that he developed the founding philosophy of the Ottoman State. A similar view was also reported by participant PT13 who stated *"…he laid out the founding philosophy of the Ottoman Empire almost like a constitution and enabled the establishment of an empire that lived for 600 years with these great principles."*

The following educators were cited by participants as versatile educators in terms of being involved in different fields: Akşemseddin, Kınalızade Âli Efendi and Kâtip Çelebi. Participants PT8, PT9, PT10 and PT25 reported that Akşemseddin was a religious scholar, but at the same time he was a medical scholar, poet, educator and writer. Kınalızade Âli Efendi was both a poet and an educator which impressed Participant PT23. Participant PT24 described Kâtip Çelebi as a person who had a wide range of interests, from history to medicine, from geography to astronomy.

Those figures who were cited by participants were Akşemseddin and Şeyh Edebâli in terms of religious views. Participants evaluated the educators of this period as people with strong mystical and spiritual qualities. For participant PT11, it was impressive that Akşemseddin, who settled in Göynük after the conquest, put aside fame and devoted himself to science and Sufism. Participant PT14 regarded Akşemseddin's testing himself to be accepted to the dervish lodge of Hacı Bayramı Veli as an impressive activity.

Table 3 below indicates the leading educators of the modernist period based on the reports of participants.

Table 3.

Leading educators of the modernist period

	Educators	Frequency	Participants
Modernist Period	Ahmet Cevdet Paşa	11	PT1, PT4,PT6, PT10, PT12, PT21, PT23, PT24, PT25, PT34, PT35
	Ziya Gökalp	8	PT2, PT5, PT7, PT8, PT16, PT18, PT20, PT31

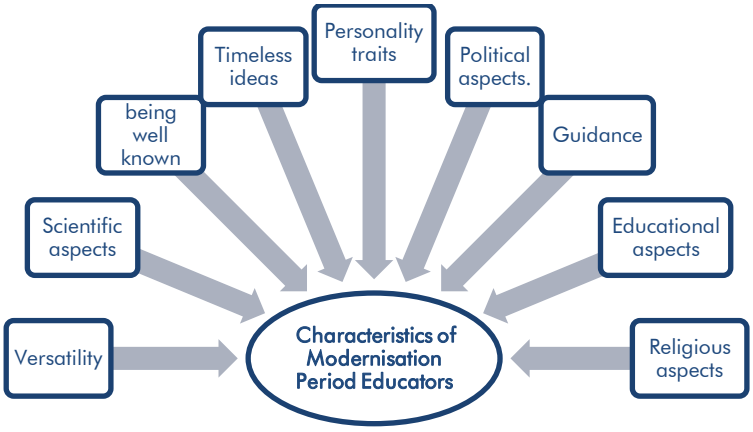
	Selim Sabit Efendi	12	PT3, PT9, PT13, PT14, PT15, PT17, PT19, PT26, PT27, PT29, PT30, PT36
	Ismail Gaspirali	2	PT11, PT28
	Mustafa Satı Bey	1	PT22
	Mustafa Reşit Paşa	1	PT32
	Babanzâde Ahmed Naim	1	PT33
Total	**7**	**36**	

As can be seen in Table 3 for the modernist period participants cited the following figures: Selim Sabit Efendi (f=12), Ahmet Cevdet Paşa (f=11), Ziya Gökalp (f=8), Ismail Gaspirali (f=2), Mustafa Satı Bey, Mustafa Reşit Paşa and Babanzâde Ahmed Naim (f=1).

The categories developed from participant's views about the influential characteristics of the leading educators of the Modernist Period are given in Figure 6.

Figure 6.

Categories on the Influential Characteristics of the Leading Educators in the Modernist Period



In Figure 6, the influential characteristics of the prominent educators of the Modernist Period are given. The pre-service teachers emphasised the educators' educational aspects, personality traits, timeless ideas, being well known, guidance, versatility, scientific aspects, religious aspects and political aspects.

Those who were cited in terms of their educational aspects included Ahmet Cevdet Pasha, Selim Sabit Efendi, Ziya Gökalp, and Ismail Gaspirali. For participants, the emergence of teaching as a profession and the innovative additions to the principles of education and training were both impressive qualities. Participant PT1 regarded Ahmet Cevdet Pasha as an impressive figure since even when he was made a pasha, he did not forget to give lessons and kept in mind that teachers are the ones who will raise the generations. Participant PT10 emphasized his focus on the Darülmuallimin, and

Participant PT24 argued that he was the founding father of contemporary teacher training and that he wrote a regulation in which an innovative and modernist educational approach was adopted. Participant PT12 stated that Ahmet Cevdet was very active in the establishment of educational institutions, the publication of new textbooks for all grades, and the increase in the significance of the Turkish language in educational contexts. For participants PT3 and PT17 Selim Sabit Efendi was an influential teacher who was the founding father of the "*usul-i cedîd*" movement and who employed new educational techniques at the Numune school. Participant PT9 added that it was Selim Sabit Efendi who began to use desks, tables, and calculation tools in the classrooms. Participant PT13 argued that his innovative activities were very impressive. The characteristic of Ziya Gökalp which influenced Participants PT7 and PT8 was his systematic approach towards the problems in education. Ismail Gaspirali's focus on women's education influenced participant PT11 stating that his views were consistent with the contemporary principle of equality in education. Ismail Gaspıralı, while serving as the mayor, introduced a program called "*usul-i cedid*" to assist the elderly. KÖ28 was impressed by Gaspıralı's emphasis on women's education and his efforts to help the elderly.

The following figures were cited by participants as influential educators because of their guidance: Ziya Gökalp, Selim Sabit Efendi, Ahmet Cevdet Pasha and Ismail Gaspiral. Participants PT2 and PT20, who stated that Ziya Gökalp influenced Atatürk's views on education, found this situation impressive. Participant PT2 pointed out that Atatürk called Ziya Gökalp *"Father of My Ideas"* in one of his speeches. Participant PT31 stated that Ziya Gökalp's views on issues such as culture influenced her deeply enough to make her review her own thoughts. It is impressive for participants PT13 and PT17 that Selim Sabit Efendi's book Rehnuma-yı Muallimin is a guide for teachers. Apart from his educational activities, participant PT24 emphasized Ahmet Cevdet Pasha's Mecelle and said, *"...He responded to the law needed under the conditions of the period with Mecelle."* Participant PT25 found it impressive that Ahmet Cevdet Pasha believed that a society's problems could be solved through education and added, "*The fact that he affected his environment, especially his children, impressed me as well."* Ismail Gaspiral's support of the principle of *"…unity in language, thought, and work for the unity of the Turkish world…"* is impressive for participant PT28.

Ziya Gökalp and Ahmet Cevdet Paşa were mentioned by participants in terms of their political views and roles. Ziya Gökalp's support of a national education, unlike previous education policies, is impressive for participant PT2. For participant PT5, his being the founding father of Turkish nationalism is very impressive. For participant PT8, Gökalp's attributing a sociological meaning to the concept of nationalism and distinguishing it from racism is very impressive. It was stated by participant PT16 that Ziya Gökalp was the intellectual pioneer of Atatürk's reforms. Ahmet Cevdet Pasha was described by participant PT12 as *"…a pole star that guided Turkish political history…"*

In terms of personality traits, Selim Sabit Efendi, Ahmet Cevdet Pasha, Ziya Gökalp, and Mustafa Satı Bey were cited by participants as influential educators. Impressed by the courage of Selim Sabit Efendi who did not give up and pursued his ideals, participant PT3 said, *"...It is very impressive that he did not hesitate to call for innovation despite the rigidity of religion in the conditions of the period."* For participant PT9, Selim Sabit Efendi was influential because he placed educational equipment such as desks, tables, and spreadsheets in his classroom, but his activities caused a reaction and was interpreted as disrespectful to the Quran and Islam. Participant PT13 argued that Selim Sabit Efendi achieved innovations because of his decisive nature. It was stated by participants PT8 and PT16 that Ziya Gökalp fought for his ideals throughout his life. Finding Ahmet Cevdet Pasha's efforts admirable, Participant PT24 said, *"During his education, he constantly read books, even during holidays, and he only took holidays on holidays."* Participant PT35 reported *"...His lack of despair for the country and his innovative attitude were influential in my choice of Ahmet Cevdet Pasha."* Participant PT22 described Mustafa Satı Bey's leaving jobs when he was not happy with them as self-confidence and courage and added: *"...While doing this, he never gave up, spent the rest of his life trying to be useful to others, and continued his work in this direction."*

Babanzâde Ahmed Naim was cited by participants as an influential educator in terms of their religious views. Participant PT33 explained her choice as follows: *"...He attaches great importance to morality and righteousness and explains moral values and righteousness according to the Quran rather than his views."*

Those cited by participants as leading educators in terms of scientific views were Ahmet Cevdet Pasha and Selim Sabit Efendi. Participants PT6 and PT12 reported that Ahmet Cevdet Pasha attached significance to the use of Turkish as a scientific language. They also stated that he wrote the first Turkish grammar book in 1851 and that his book was employed at the schools as a textbook for 50 years. The book written by Selim Sabit Efendi was regarded by Participant PT27 as a significant contribution to the Turkish education system.

Selim Sabit Efendi was cited by participants as an influential educator in terms of having views beyond his time. The practices of Selim Sabit Efendi, who changed the understanding of education by applying the new education approach in his own school, were described by Participant PT15 as follows: *"...his works at that time overlap with the contemporary education model."* Participant PT30 stated that Selim Sabit Efendi, who employed the spreadsheets and maps used in the Western countries in his classroom and added *"... reminded me of the centers that exist in very few preschool education institutions in today's Turkey but exist in almost all of them in Europe."*

Ahmet Cevdet Pasha and Ismail Gaspirali were cited by participants as influential educators in terms of being involved in versality. While stating that Ahmet Cevdet Pasha proved himself in the fields of history, law and poetry, participant PT34 said, *"...He impressed me with his many qualifications, such as being an Islamic scholar, a*

philosopher, a sociologist, a politician, a lawyer, a historian, and a poet…" Ismail Gaspiral's work as a writer, journalist, and teacher is impressive for participant PT28.

In terms of being well-known, Selim Sabit Efendi was cited by participant PT27 who described him as the first contemporary Turkish educator.

Table 4 shows the impressive educators of the Early Republic Period based on the views of participants.

Table 4.

Leading Educators of the Early Republic Period

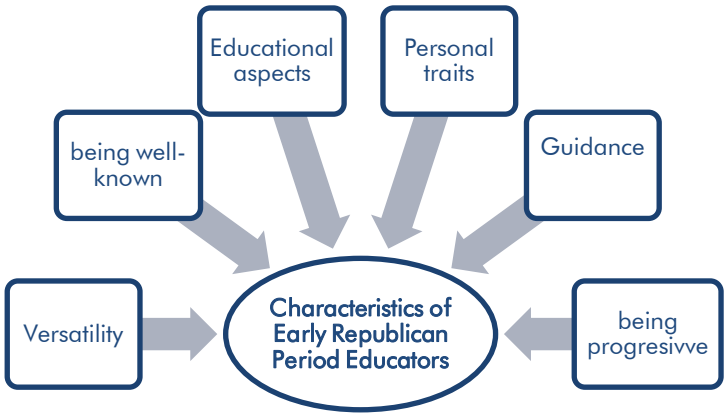
	Educators	frequency	Participants
Early Republic Period	Hasan Ali Yücel	7	PT1, PT2, PT9, PT11, PT16, PT20, PT21
	Halide Nusret Zorlutuna	5	PT3, PT18, PT19, PT28, PT32
	Nurettin Topçu	1	PT4
	Cahit Arf	9	PT5, PT7, PT10, PT23, PT25, PT31, PT34, PT35, PT36
	Nihat Sami Banarlı	3	PT6, PT22, PT26
	İsmail Hakkı Tonguç	5	PT8, PT13, PT15, PT29, PT30
	Mustafa Kemal Atatürk	2	PT27, PT33
	Seyit Ahmet Arvasi	1	PT12
	İsmail Hakkı Baltacıoğlu	2	PT14, PT17
	Ziya Gökalp	1	PT24
Total	**10**		**36**

As can be seen in Table 4, the following figures were given by participants as impressive educators of the Early Republic Period: Cahit Arf (f=9), Hasan Âli Yücel (f=7), Hâlide Nusret Zorlutuna with İsmail Hakkı Tonguç (f=5), Nihat Sami Banarlı (f=3), Mustafa Kemal Atatürk and İsmail Hakkı Baltacıoğlu (f=2), Nurettin Topçu, Seyit Ahmet Arvasi and Ziya Gökalp (f=1).

The categories developed from participants' views about the impressive characteristics of the leading educators of the Early Republic Period are given in Figure 7.

Figure 7.

Categories on the Influential Characteristics of the Leading Educators in the Early Republic Period



In Figure 7, the influential characteristics of the prominent educators of the Early Republic Period are given. The pre-service teachers emphasised the educators' educational aspects, personal traits, being well-known, versatility, being progressive, and guidance.

The following educators were cited by participants as influential figures based on their educational views: Halide Nusret Zorlutuna, Cahit Arf, İsmail Hakkı Tonguç and Seyit Ahmet Arvasi. Participants reported that they selected them because of their adoption of a contemporary educational approach and their attaching importance to their profession. For participant PT2 Hasan Âli Yücel's focus on the importance of learning by doing is impressive. Participant PT3 found Halide Nusret Zorlutuna impressive because she was very successful in the teaching profession. Participant PT7 stated that he was impressed by Cahit Arf's giving importance to his profession and added *"He is a teacher who will enlighten my path when I become a teacher in the future, whether it is the way he approaches his students or his effort to make everyone love mathematics..."* For participant PT8, İsmail Hakkı Tonguç's following educational views are very impressive: *"....It is more efficient for children of play age to learn through play, and for older children to learn by doing, trying, seeing and touching by taking on a task."* Participant PT12 stated that it was very impressive that although the period of Seyit Ahmet Arvasi was very difficult, he always attached importance to education.

In terms of being progressive participants mentioned Hasan Âli Yücel, İsmail Hakkı Tonguç, İsmail Hakkı Baltacıoğlu, Nihat Sami Banarlı, Halide Nusret Zorlutuna and Cahit Arf. The necessity of teaching to be intertwined with daily life, showing sufficient sensitivity to women's education, the importance of science, and the necessity of providing education to everyone are expressed as impressive features of these educators. Hasan Âli Yücel's opening of the Village Institutes influenced participant PT1, and Yücel's opposition to rote learning and his views that teaching should be combined with life and transformed into productivity influenced participant PT2. Participant PT14

found the views of İsmail Hakkı Baltacıoğlu, whom he defined as one of the leading figures of education reform, impressive and reported the following: *"...his attitude towards women, his pioneering activities in women's access to higher education, his views that the basic condition of development is education, but this will not happen only with the education of me; girls must also be educated..."* Similarly, for participant PT28 Halide Nusret Zorlutuna was an influential educator because of her focus on the significance of the education for women in her novels. Participant PT25 stated that he found Cahit Arf impressive, arguing "...perhaps many people can be good mathematicians, but not everyone can develop new methods in the field of the teaching of mathematics..." and also drew attention to his contribution to science. For participant PT36 the establishment of the Scientific and Technological Research Council of Turkey (TÜBİTAK) by Cahit Arf was a pioneering step towards the education of young people engaging in science. Participant PT8 stated that he was impressed by İsmail Hakkı Tonguç stating, "*He applied the principle of on-the-job training for the first time… and most importantly, he was the founding father of education for poor village children*."

Those whose personality traits were cited as influential included Nurettin Topçu, Cahit Arf and Halide Nusret Zorlutuna. The personality traits mentioned were struggling with difficulties, having a universal perspective, and striving to be humble and successful. Participant PT4 found it impressive that Nurettin Topçu did not give up on his cause despite facing many difficulties throughout his life. He found him impressive because of his determination and perseverance. Participants PT7 was impressed by Cahit Arf's modest and successful career and his universal fame. Participant PT19 stated that for her it is impressive that Halide Nusret, despite all the difficulties and pain, was *"…a voice for women and a teacher who stood firm."*

In terms of being well-known, participants cited the following figures: Cahit Arf, Nihat Sami Banarlı and Hasan Âli Yücel. For participant PT9, Hasan Âli Yücel's activities to publish the classical works were impressive. It is impressive for participant PT6 that schools are named after Nihat Sami Banarlı, who contributed to the development of the Turkish language. Another participant, PT23 cited Cahit Arf due to his mathematical activities. Participant PT31 stated that he was impressed by the fact that Arf's name was mentioned all over the world, and participant PT25 remarked that Arf's picture is on the money used every day as a result of his contribution to Turkish mathematics.

The versatility was cited for the following: İsmail Hakkı Baltacıoğlu, Halide Nusret Zorlutuna, Ziya Gökalp and İsmail Hakkı Tonguç. For PT14 ,İsmail Hakkı Baltacıoğlu's multi-activities and his productions in different fields are influential. Halide Nusret Zorlutuna's poetry and literary work are impressive for participant PT18. Participant PT24 stated that Ziya Gökalp's involvement in sociology was an inspiring activity. İsmail Hakkı Tonguç's design of village teaching schools and village institutes was impressive for Participant PT30.

Mustafa Kemal Atatürk was cited by participants as a progressive leader. Participant PT33 regarded Atatürk's views as impressive, including his advocating that the education system should be re-established in accordance with the needs of our country and the requirements of the age, and that this education should also be disseminated to all segments of society.

Results and Discussion

The results obtained based on the findings and the suggestions made in line with the results are discussed in this section.

In the study, the leading educators of Turkish Education History, which is divided into four periods, and their characteristics were analyzed through the evaluations and views of the pre-service teachers. Then an educator profile was developed based on these periods.

Participants cited the following as leading educators: İbn-i Sina, Farabi, Ghazâli, Hoca Ahmet Yesevi, Mevlana, Akşemseddin, Şeyh Edebâli, Kınalızade Ali Efendi, Kâtip Çelebi, Ali Kuşçu, Taşköprîzâde (İsâmeddîn) Ahmed Bin Mustafa, Ali bin Hussein Amasi, Selim Sabit Efendi, Ahmet Cevdet Pasha, Ziya Gökalp, Ismail Gaspirali, Mustafa Satı Bey, Babanzâde Ahmed Naim, Cahit Arf, Hasan Âli Yücel, Hâlide Nusret Zorlutuna, İsmail Hakkı Tonguç, Nihat Sami Banarlı, Mustafa Kemal Atatürk, İsmail Hakkı Baltacıoğlu, Nurettin Topçu, Seyit Ahmet Arvasi and Ziya Gökalp. As can be seen, many prominent names of the history of Turkish education were mentioned by the participants. Early Republic and Classical Period educators are more prominent.

The following figures were given by participants as the leading figures of education during the early Islamic period: İbn-i Sina, Farabi, Gazâli, Hoca Ahmet Yesevi and Mevlana. Despite the philosophical connections of many of the individuals mentioned, their identification as educators by pre-service teachers highlights the interplay between these two concepts during their respective periods, as well as the influence of philosophical thought on the field of education. At this point, Farabi is the first philosopher in Turkish education history to present direct views on education. He introduced Greek philosophy to Islamic science and was recognized as the "Second Teacher" after Aristotle (Akyüz, 1982). Ibn-i Sina, with his contributions to medicine, mathematics, and philosophy, was acknowledged as the "Third Teacher. "There are studies that described them as both educators and scientific figures. For instance, in the study by Yazıcı, N. Koca and S. Koca (2021) on a sample of gifted students, it was found that participants wanted to be in İbn-i Sina's shoes as scientists. Preservice teachers have assessed a qualified educator as a person who possesses competence in multiple fields.

Among the leading educators of the classical period mentioned by participants are Akşemseddin, Kınalızade Ali Efendi and Ali Kuşçu. It appears that the qualities of the

leading educators of the Turkish-Islamic period are similar to the qualifications of the leading educators of the Classical Period. The relationship established by the participants between education and science is seen in the story of Ali Kuşçu, which extends from Samarkand to Istanbul. Kuşçu is appointed as a muderris at the Hagia Sophia madrasa with the compliments of Fatih (Adıvar, 1982). This situation is also an indicator of the importance the Ottoman rulers attach to education and science. The importance that rulers give to educators is seen in the relationship between Fatih and Akşemseddin. Akşemseddin demonstrated the guiding feature indicated by the participants during the conquest of Istanbul. (Yazıcı, 2020). Ali bin Hussein Amasi who has an important place in the professional specialization of teaching and wrote works on this subject (Topsakal, 2017), is an important example of teaching gaining professional value. Therefore, teaching began to become a special field of education in the relevant period.

Participants cited the following as leading educators of the modernist period: Selim Sâbit Efendi, Ahmet Cevdet Paşa and Mustafa Satı Bey. These people are the pioneers in the professionalization of the teaching field. Selim Sâbit Efendi, the representative of the Usul-i Cedid movement, is the first educator who started to use teaching methods and technologies in primary education. Additionally, Selim Sâbit Efendi's work Rehnümâ-yı Muallimîn provided intellectual guidance for teachers (Temizyürek, 1999). Ahmet Cevdet Pasha and Mustafa Satı Bey, who played an important role in the opening of Darülmuallimin, emphasized that teaching is a unique profession and that teachers should be trained with this understanding (Özkan, 2018). On the other hand, Ismail Gaspirali, who emphasized unity in language (Ercilasun, 1991), and Ziya Gökalp, who emphasized the importance of national awareness in education (Biçer, 2020), are two educators who suggest that educators played an important role in the intellectual development of the period.

Mustafa Kemal Atatürk was cited by the pre-service teachers as a leader among the influential educators of the Early Republic Period. The selection of Atatürk as a leading educator emphasizes the direct relationship between administrative roles and education in the relevant period. Halide Nusret Zorlutuna (Erdal, 2005; Harikçi, 2017), who supported a child-centered approach in education, İsmail Hakkı Tonguç and Hasan Ali Yücel, who were instrumental in the establishment of Village Institutes, were selected as the leading educators of this period. It suggests that the new state created a new teacher model. On the other hand, Cahit Arf and İsmail Hakkı Baltacıoğlu, who were also cited as the leading educators, show that the relationship between science and education continued in this period.

Those chosen as impressive educators in the history of Turkish education reveal that the relationship between science and education is taken into consideration by participants. They also selected those who guide administrators and contribute to the professional specialization of teaching. The choice of participants regarding the leading educators

also indicates that education as a culture is a function of variables such as society, humanity, the educational process, and cultural content (Güvenç, 1994).

When all periods of Turkish education history are evaluated, it is seen that participants focused on having a unique personality, being famous, having ideas beyond time, being knowledgeable, being versatile, guiding, having religious qualities, being associated with politics, being forward-thinking and pioneering as the characteristics of leading educators. These features have been evaluated throughout history as an indicator of what an impressive educator profile should be.

The characteristics of the leading educators such as versatility, fame, timelessness, and personality traits, are emphasized by participants for each period. It suggests that education, as a cultural element is the result of common values shared in society and the interaction of people with each other (Gül, 2004). The fact that educators have common characteristics implies that education has certain characteristics that are very significant in different periods.

The personalities of educators, who are emphasized in every period, reflect the fact that the effective teacher characteristics as stated by McDonald (1975) have always existed in the historical processes (cited in Yeşil and Coşgun, 2019). Similarly, Taştan (2012), Yeşil and Coşgun (2019) and Kızıltepe (2002) reported that educators must have certain personality traits in order to provide quality education.

The fact that educators are versatile and have ideas beyond time is among the impressive educator characteristics reported by participants for all historical periods covered in the study. Özdemir (2011), who examined Mevlana's educational aspect, stated that Mevlana had a versatile personality as a thinker, a poet, a mystic, and a man of the heart. It is stated that this situation was effective in accepting Mevlana as a universal personality. Additionally, his ability to approach events from a different perspective is the factor that affects his views on teaching methods, which were used commonly and were regarded as influential beyond his time. Therefore, the versatile characteristics of educators also enabled them to carry their ideas beyond their time.

Participants reported that the leading educators have certain qualities specific to the historical periods. One of them is the religious elements. Erdem (2013) pointed out that after Turks adopted Islam as their religious belief, they synthesized Islamic values with their existing customs, but the dominant factor in the values of this new period was religion. Akyüz (2004) stated that teaching religious values became important in the lives of Turks after they accepted Islam as a religion, and therefore, education began to cover a religious element since then. Thus, the change in social dynamics was reflected in Turkish education and educators, and pre-service teachers evaluated this as an impressive feature.

A similar situation is seen in the effective educator characteristic of the Modernist Period which is about their political roles. The nation-state understanding that emerged in the

relevant era could influence them to have a political character. Akhundova (2012) states that the political function of education began to be felt clearly by the educators of the period. Educators are very active in the realization of the political philosophy of the society and in the internalization of the norms and values of the desired social structure by individuals (Karataş, 2020). On the other hand, it is seen that in the Early Republic period, emphasis was placed on the pioneering qualities of educators. Therefore, it is understood that impressive educators are those who are affected by the conditions of the period.

In conclusion, identifying the leading educators in the history of Turkish education is crucial for understanding how education has been shaped by various influences throughout history. The assessments made by pre-service teachers about the key characteristics of important educators from different periods show that education can be viewed as a cultural process that evolves in response to changing social dynamics over time. Furthermore, the similarities in the qualities of educators across different historical periods suggest that pre-service teachers can gain insights into the continuity and fundamental values of education. Therefore, conducting studies with different participant groups will enable comparisons to be made.

Recommendations

When the results obtained from the study are evaluated in general, the following suggestions can be made:

- Conducting similar studies with students or teachers from different age groups can enhance the diversity of findings and allow for a broader assessment of educators' effective characteristics.
- Analysing the qualities of prominent educators in the history of Turkish education by comparing them with similar figures in the history of education in other countries can help to understand cultural and historical differences in education.

References

Adıvar, A.A. (1982). *Osmanlı Türklerinde ilim*. Remzi Kitapevi.

Akhan, O. & Altıntaş, S. (2019). Öğretmen adaylarının Türk Eğitim Tarihi Dersine yönelik tutumları. *TÜBAD, IV* (II), 90-100.

Akhundova, J. (2012). Eğitim ve Toplum olgularının etkileşimi: sosyoekonomik ve sosyopolitik analiz. *Karadeniz Sosyal Bilimler Dergisi, 4*(6), 15-27. https://dergipark.org.tr/tr/pub/ksbd/issue/16225/169925

Akyüz, Y. (1982). Farabi'nin Türk ve Dünya Eğitim Tarihindeki Yeri. *Ankara University Journal of Faculty of Educational Sciences (JFES), 15*(2), 81-88. https://doi.org/10.1501/Egifak_0000000892

Akyüz, Y. (2004). *Türk eğitim tarihi*. Ankara: Pegem Akademi Yayınları.

Arıcı, F. (2020). Önsöz. Ed. F. Arıcı Büyük Eğitimciler içinde (pp. iii). Ankara: Pegem Kültür.

Arıkan A., Ünver Ş. & Saraç Süzer, H.S. (2007). Yabancı dil eğitimi programlarında Türk Eğitim Tarihi dersinin önemi ve içeriğine ilişkin öğrenci görüşleri. *H. Ü. Eğitim Fakültesi Dergisi (H. U. Journal of Education), 33*, 24-32.

Avcu, K. M. & Çelik Ö. Ç. (2022). Sosyal bilgiler dersinde tarihî şahsiyetlerin rolüne ilişkin öğretmen görüşleri. *Fırat Üniversitesi Sosyal Bilimler Dergisi, 32*(1), 97-110. https://dergipark.org.tr/tr/pub/firatsbed/issue/68126/960843

Başkale, H. (2016). Nitel araştırmalarda geçerlik, güvenirlik ve örneklem büyüklüğünün belirlenmesi. *DEUHFED, 9*(1), 23-28. https://dergipark.org.tr/tr/download/article-file/753041

Bektaş, K. (2020). Sosyal bilgiler öğretiminde tarihî şahsiyetlerin ele alınışına ilişkin sosyal bilgiler öğretmenlerinin görüşleri. (Publication No. 647151). (Master thesis, Yıldız Teknik Üniversitesi). https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp

Bektaş, K. ve Şeker, M. (2020). Sosyal bilgiler öğretmenlerinin tarihî şahsiyetlere yönelik zihinsel imajı ve görüşleri. *Journal of Social Sciences and Education, 3*(2), 527-536. https://dergipark.org.tr/tr/pub/josse/issue/57480/809060

Biçer, B. (2020). Milli eğitim ve kültürün gür sesi: Ziya Gökalp. A. F. Arıcı (Ed). *Büyük eğitimciler* içinde (pp.183-193), Ankara: Pegem Kültür.

Candela, A. G. (2019). Exploring the function of member checking. *The Qualitative Report, 24*(3), 619-628. https://nsuworks.nova.edu/tqr/vol24/iss3/14.

Creswell, J. W., & Miller, D. L. (2000). Getting good qualitative data to improve educational practice. *Theory Into Practice, 39*(3), 124-130. https://www.tandfonline.com/doi/epdf/10.1207/s15430421tip3903_2?needAccess=true

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (4nd ed.). Thousand Oaks, CA: Sage.

Deniş Çeliker, H. & Erduran Avcı, D. (2015). İlkokul öğrencilerinin bilim insanı algıları: öğrencilerin bilimsel faaliyetlere katılması bilim insanı algılarını nasıl etkiler? *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi, 36*, 90-104. https://dergipark.org.tr/tr/pub/maeuefd/issue/19409/206408

Deniz, Ç. (2011). *İlköğretim II. kademe sosyal bilgiler ders kitaplarında tarihi şahsiyetlere yaklaşım tarzı,* (Publication No. 280666), Master thesis, Selçuk Üniversitesi. https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp

Dere, İ. & Ülker, A.B. (2022). Lise tarih ders kitaplarında tarihi şahsiyetler. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 42*(1), 921-956.https://dergipark.org.tr/tr/download/article-file/1726072

Elban, M. (2018). Tarih düşüncesinde ve eğitiminde kahramanların/ büyük adamların rolü. *Motif Akademi Halk Bilimi Dergisi, 11*(22), 98-116. https://dergipark.org.tr/tr/download/article-file/490414

Ercilasun, A.B. (1991). İsmail Gaspıralı'nın fikirleri. *Türk Kültürü Aylık Dergi (Gaspıralı İsmail Bey Sayısı), 337-338* (XXIX), 329-336.https://isamveri.org/pdfdrg/D00206/1991_337-338/1991_337-338_GULENSOYT.pdf

Erdal, K. (2005). Halide Edip Adıvar ve Halide Nusret Zorlutuna'nın eserlerinde öğretmen ve eğitim, (Publication No: 187790), Doctor thesis, Uludağ Üniversitesi. https://acikbilim.yok.gov.tr/handle/20.500.12812/696375

Erdem, A. R. (2013) "Türk Eğitim Tarihi" dersinin öğretmen adaylarının eğitimi açısından önemi, Mithat Aydın (Edt), *Prof. Dr. Önder Göçgün Armağan Kitabı* içinde (pp.441–474), Denizli: Pamukkale Üniversitesi Yayınları No: 28, ISBN: 978-975-6992-41-8

Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. *Educational Communication and Technology Journal, 30*(4), 233-252.

Güçlü, M. & Bozgeyikli, H. (2016). Öğretmen adaylarının Türk Eğitim Tarihi dersine yönelik tutumlarının incelenmesi. *Tarih Okulu Dergisi, 9*(1), 401–415.

Gül, G. (2004). Birey toplum eğitim ve öğretmen. *Hasan Ali Yücel Eğitim Fakültesi Dergisi, 1,* 223-236.

Güvenç, B. (1994). *İnsan ve Kültür*. Remzi Kitabevi.

Harikçi, V. (2017). *Halide Nusret Zorlutuna'nın din, toplum ve eğitim görüşleri*. (Publication no: 456512) Master thesis, Fırat Üniversitesi.

Kamer, S.T. ve Şimşek, A.S. (2016). Türk eğitim tarihi dersine yönelik öğretmen adaylarının tutumlarının ölçülmesi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD), 17*(2), 663-678.

Karagöz, S. (2021). Türk Eğitim Tarihi dersinin eğitim fakültesi öğrencilerinin eleştirel düşünme, sorgulama ve sorumluluk bilinçlerinin gelişimine katkısı: *Aksaray Üniversitesi örneği. Uluslararası Toplum Araştırmaları Dergisi, 16*(27), 210-235.

Karagözoğlu, N. (2018). Sosyal bilgiler dersinde vatandaşlık değerinin kazandırılmasında kadın kahramanların yaşam öykülerinin kullanılması. *International Journal of Field Education, 4,* 97-110.

Karataş, K. (2020). Öğretmenlik mesleğine kuramsal bir bakış. *Elektronik Eğitim Bilimleri Dergisi, 9*(17), 39-56.

Kızıltepe, Z. (2002). İyi ve etkili öğretmen. *Eğitim ve Bilim Dergisi, 27*(126), 10-14.

MacMillan, M. (2017). Tarihin insanları: kişilikler ve tarihîn seyri. Kolektif Kitap.

Miller, S. (2003). Analysis of phenomenological data generated with children as research participants. *Nurse Researcher, 10*(4), 68-82, https://doi.org/10.7748/nr2003.07.10.4.68.c5908

Miles, M, B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded Sourcebook. (2nd ed). Thousand Oaks, CA: Sage.

Oruç, Ş. (2019). Tarih öğretiminde biyografiler. M. Safran (Ed.), *Tarih nasıl öğretilir (3. Baskı)* içinde (pp. 360-366). İstanbul: Yeni İnsan Yayınevi.

Özkan, R. (2018). Darülmuallimin'in ilk nizamnamesi ve Prof. Dr. Yahya Akyüz. *Akademik MATBUAT, 2*(1), 1-15. http://dergipark.gov.tr/matbuat.

Önder, M. (2020). Oyun, oyuncak ve oyuncak müzelerinin çocuk eğitiminde aktif olarak kullanılması ve başarıya katkısı. *Amasya İlahiyat Dergisi, 15*, 179-204.

Özdemir, Ş. (2011). Mevlana'nın eğitimci kişiliği. *Fırat Üniversitesi İlahiyat Fakültesi Dergisi 16*(1), 1-13.

Şahin, M., Ellez, M. & Günter, T. (2007). *Türk Eğitim Tarihi dersine ilişkin öğrencilerin algı ve beklentileri*. XVIII. Ulusal Eğitim Bilimleri Kurultayı. 1-3 Ekim. İzmir.

Şen, Z. (2018). Eğitim ve bilim düşüncesi. *Üniversite Araştırmaları Dergisi, 1*(1), Sayfa: 1-6

Taştan, M. (2012). Nitelikli bir öğretmende bulunması gereken özelliklerin öğretmen adaylarının görüşlerine göre incelenmesi. *Sosyal Bilimler Enstitüsü Dergisi, 33*(2), 283-298.

Tavşancıl, E. & Aslan, E. (2001). *Sözel, yazılı ve diğer materyaller için içerik analizi ve uygulama örnekleri.* Epsilon Yayınevi.

Tekindal, M. & Uğuz Arsu, Ş. (2020). Nitel araştırma yöntemi olarak fenomenolojik yaklaşımın kapsamı ve sürecine yönelik bir derleme. *Ufkun Ötesi Bilim Dergisi, 20*(1), 153-182.

Temizyürek, F. (1999). Selim Sabit Efendi ve Usûl-i Cedid hareketi içerisindeki yeri (Publication No: 87566), Doctoral thesis, Gazi Üniversitesi.

Tokdemir, A. M. (2017). Tarih eğitimi ve değerler. İ. H. Demircioğlu & E. Demircioğlu (Edts.), *Türkiye'de tarih eğitimi araştırmaları el kitabı* içinde (pp. 325-339), Pegem Akademi.

Topsakal, C. (2017). Ali B. Hüseyin eL-Amasya'nın tariku'l edeb adlı eserinin günümüz eğitim bilimleri açısından incelenmesi. Uluslararası Amasya Âlimleri Sempozyumu bildiri kitabı içinde (pp. 267-278), 21-23 Nisan 2017 Amasya.

Yazıcı, S. (2020). Akşemseddin, Ed. F. Arıcı *Büyük Eğitimciler* içinde (pp.81-91), Pegem Kültür.

Yazıcı, S., Koca, N. & Koca, S. (2021). Özel yetenekli ilkokul öğrencilerinin bilim insanı niteliklerine ilişkin görüş ve algılarının incelenmesi. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi,* (59), 390-414. https://dergipark.org.tr/tr/pub/maeuefd/issue/64363/872165

Yeşil, S. & Coşkun G. (2019). *Kişisel özellikler ve mesleki yeterlikler açısından etkili öğretmen*. Mardin Artuklu Uluslararası Multıdisipliner Çalışmalar Kongresi,19-21 Nisan 2019.

Yıldırım, A. & Şimşek, H. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri*. (9. Baskı). Seçkin Yayıncılık.

Genişletilmiş Türkçe Özet

Eğitim tarihi, tarihîn ve toplumların belirli dönemlerinde yaşamış ve toplumlarına bir şekilde katkıda bulunup bu katkılar sayesinde toplumların hafızasında adını ölümsüzleştirmiş şahsiyetleri araştırarak (MacMillan, 2017), dönemin ilerleyişini ve ihtiyaçlarını ortaya çıkarmayı ve o çağın duygularını tasvir etmeyi amaçlamaktadır. Farklı fikir kaynaklarından beslenmiş ve farklı sosyal ve politik ortamlarda yaşamış tarihte iz bırakan, tarihe yön vermiş ve yenilik yapan bu kişileri anlamak (Bektaş, 2020), onların değerlerini, fikirlerini, hayata bakış açılarını bilmek ve kavramak dönemlerin anlaşılmasına yardımcı olacaktır (MacMillan, 2017; Tokdemir, 2017). Çalışma bu noktadan hareketle Türk Eğitim Tarihi'nin etkileyici eğitimcileri ve özelliklerini öğretmen adaylarının değerlendirmeleri üzerinden belirlemeyi ve bu yolla bir eğitimci profili ortaya çıkarmayı amaçlamaktadır. Bunun için çalışmada nitel araştırma yöntemlerinden fenemenoloji deseni kullanılmıştır. Amaçlı örnekleme bağlı ölçüt örnekleme ile katılımcılar belirlenmiştir. Türk eğitim tarihi dersini araştırmacıdan alan ve dahil etme kriterlerine uygun rapor hazırlayan 36 öğretmen adayı katılımcı grubunu oluşturmuştur. Çalışmanın veri toplama aracı; Türk İslam Dönemi, Klasik Dönem, Modernleşme Dönemi ve Erken Cumhuriyet Dönemi olarak dört döneme ayrılan ve her bir dönem için seçilen bir eğitimcinin hayatının incelendiği Türk Eğitim Tarihi ders raporları olarak belirlenmiştir. Raporlarda eğitimcinin hayatıyla ilişkilendirilen etkileyici özelliği veri analizinde kullanmak üzere belirlenmiş ve katılımcı kodlamaları üzerinden excele aktarılmıştır. Veriler içerik analizi yöntemi ile çözümlenmiştir. Araştırma bulgularının doğruluğunu kontrol etmek üzere araştırmacı veri toplama sürecinde ve verilerin analizinde doğrudan yer alarak bir araç görevi üstlenmiştir (Creswell ve Miller, 2000). Bununla birlikte araştırmanın tek kişi tarafından yürütülmesi toplanan verilerden farklı sonuçlara ulaşma ve bazı öznel varsayımlardan hareket etme olasılığına neden olabilecektir. Bunu engellemek ve inandırıcılığı sağlamak için katılımcı teyidi kullanılmıştır. Güvenilirlik yaratmanın parçalarından biri olan katılımcı teyidinde verilerin doğruluğu ve yorumların onaylanma veya reddedilmesi çalışma grubu ile gerçekleştirilmektedir (Creswell & Miller, 2000). Fenomenolojik çalışmaların doğasından kaynaklanan kişisel deneyimler ve ön yargılar bu yolla engellenebilmektedir. İnandırıcılık için; önce her bir katılımcıya ait bilgiler özetlenmiş, değerlendirilmiş ve temalar oluşturulmuştur. Ardından katılımcılara verileri gözden geçirme, daha fazla bilgi ekleme ve düzenleme fırsatı sunulmuştur. Son olarak analizlerin doğruluğu ve bütünlüğü kontrol ettirilmiştir. Fakat bulguların doğruluğunun ve tutarlılığının katılımcı teyidine aşırı güvenerek tehlikeye düşebilme ihtimaline karşı dörder kişilik 9 grup oluşturularak kodlamaların temalara uygunluğunu, açıklamaların yeterli ve gerçekçi olup olmadığı değerlendirilmiştir (Candela, 2019). Kodlamalar arasındaki güvenirlik Miles ve Huberman (1994:64) formülüne göre [Güvenirlik=Görüş Birliği/(Görüş Birliği+Görüş ayrılığı)] .89 olarak belirlenmiştir. Çalışmadan elde edilen sonuçlar değerlendirildiğinde Türk Eğitim Tarihinin etkileyici eğitimcileri olarak; İbn-i Sina, Farabi, Gazâli, Hoca Ahmet Yesevi, Mevlana, Akşemseddin, Şeyh Edebâli, Kınalızade Ali Efendi, Kâtip Çelebi, Ali Kuşçu, Taşköprîzâde (İsâmeddîn) Ahmed Bin

Mustafa, Amasyalı Hüseyin Oğlu Âli, Selim Sabit Efendi, Ahmet Cevdet Paşa, Ziya Gökalp, Gaspıralı İsmail Bey, Mustafa Satı Bey, Babanzâde Ahmed Naim, Cahit Arf, Hasan Âli Yücel, Hâlide Nusret Zorlutuna, İsmail Hakkı Tonguç, Nihat Sami Banarlı, Mustafa Kemal Atatürk, İsmail Hakkı Baltacıoğlu, Nurettin Topçu ve Seyit Ahmet Arvasi isimlerinin ifade edildiği tespit edilmiştir. Eğitimcilerin sayıca çokluğu ve aynı zamanda bilim insanlarından, düşünürlere, devlet adamlarından yazarlara kadar çok fala özellik sahibiolmalarıTürk eğitim Tarihinin nitelikli eğitimci profilinin zenginliğinin geniş bir göstergesidir. En fazla isim Klasik Dönem ve Erken Cumhuriyet Dönemlerinde ifade edilmiştir. Tüm dönemler dikkate alındığında Türk eğitiminin etkileyici eğitimci profilinin; eğitimci niteliği yüksek, kişilik sahibi, tanınan, ilim sahibi, çok yönlü, yol gösterici, dini niteliklere sahip, siyasetle ilişkili, ileri görüşlü ve öncü özelliklere sahip kişiler olarak algılandığı görülmektedir. Eğitimcilerin benzer özelliklerinin yanı sıra siyasi veya sosyal şartlara bağlı olarak farklı özelliklerinin de ifade edildiği görülmektedir. Öğretmen adaylarının eğitimcilerin temel özelliklerine ilişkin farklılıkları ifade etmeleri, eğitimin zaman içinde değişen toplumsal dinamiklere yanıt olarak gelişen kültürel bir süreç olarak algılandığını göstermektedir. Ayrıca, farklı tarihsel dönemlerdeki eğitimcilerin benzer niteliklere sahip olmaları ise, eğitimdeki sürekliliğinin ve temel değerlerin algılanabildiğini ifade etmektedir.

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ENAD ONLINE

Journal of Qualitative Research in Education
Eğitimde Nitel Araştırmalar Dergisi

Analysis in Phenomenological Design of the Experiences of Psychological Counselors in the Earthquake Region

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To cite this article:

Keskin, A., Çok, R., Atıcı, M. (2025 Analysis in Phenomenological Design of the Experiences of Psychological Counselors in the Earthquake Region. *Journal of Qualitative Research in Education*, 60-94. Doi: 10.14689/enad.41.2007

Abstract

This study examines psychological counselors' motivations to go to the earthquake zone, their work and feelings about it, how to ensure psychological resilience, and their suggestions on this issue. The study included 14 psychological counselors who provide psychological first aid (PFA) and psychosocial support (PSS) services in disaster settings. A semi-structured interview method was used to collect the data, and content analysis was used to analyze the data. When the motivations of the psychological counselors participating in PFA and PSS services for going to the disaster area and working there were examined, it was seen that two different themes emerged: personal motivation and professional motivation sources. Psychological counselors reported conducting artistic, PFA, and PSS activities in the disaster zone. Psychological counselors said they tried to protect their psychological resilience by doing emotional regulation, cognitive, and physical activities in the earthquake zone. Psychological counselors emphasized the importance of factors such as expectations from the psychosocial support team, personal coping resources, cognitive and emotional readiness, and physical health protection to protect the psychological resilience of field experts who will work in the disaster zone. Participants categorized their feelings about their experiences in the earthquake zone as pleasant emotions and unpleasant emotions. This study reveals findings that can inform social welfare interventions and policies designed to address the nature of disasters, including activities carried out in disaster zones, personal characteristics, social/environmental interactions, and demands for protection and recovery. Strategies for maintaining mental strength in disaster situations include self-care, having critical coping skills, seeking professional psychological support or supervision when needed, ensuring high levels of motivation and collaboration, and maintaining professional boundaries and continuity.

Keywords: Earthquake, psychological first aid, psychosocial intervention, psychological resilience, psychological counselors.

About the Article

Submitted Date: Sep.07, 2024

Revised Date: Jan. 03, 2025

Accepted Date: Jan. 07, 2025

Article Type:

Review

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Introduction

Turkiye is a disaster-prone region due to its ecological, meteorological, and topographical structure. (Disaster and Emergency Management Presidency [DEMP], 2024). Natural disasters are ecosystems that shake people's daily living conditions and require external assistance to reduce economic, sociological, and physical damages (Altun, 2018). Disasters also have psychological effects. Individuals may experience cognitive stagnation, emotional confusion, and somatic reactions. Among the most fundamental psychological problems encountered are post-traumatic stress disorders, which include disruption of emotional balance, uncertainty, anxiety, inability to be in the moment, and secondary traumatic effects (Azzollini et al., 2018). All these bring to mind the question of how disasters should be managed (Arıca, Çakır, & Kağnıcı, 2023). Disaster management is all activities to understand natural disasters occurring in settlements and minimize the impact when they recur (AFAD, 2024). Considering the impact of disasters, it is seen that one of the most effective services for disaster victims to return to their daily lives is psychosocial support services (Çoban, 2019). Psychosocial services for disasters include preventing psychological problems that may arise after the catastrophe, establishing relationships at the family and community level, strengthening their lives in returning to normal, and improving their coping and adaptation processes (Disaster and Emergency Management Presidency, [DEMP], 2024). In other words, it is a set of activities involving various internal and external support resources to protect people's psychosocial health and prevent potential mental health problems (Inter-Agency Standing Committee [IASC], 2017). Recognizing the positive impact of psychosocial activities has made it an essential element of psychological aid activities and has led to its acceptance by all organizations (Kurtul, 2014). AFAD (2024) addresses psychosocial support (PSS) under ten headings. These are assessments of needs and resources, psychological first aid (PFA), coordination and cooperation, referral and guidance, information center creation, community mobilization, social projects, training, employee support, monitoring, and evaluation. When the employee support part is examined, it is aimed to increase the work and life motivation of the personnel working in disasters by reducing their emotional, behavioral, mental, and physical impact levels. The basic steps of psychosocial intervention are needs assessment, psychological first aid, guidance and orientation, personnel support, training activities, follow-up, and evaluation (Doğan, 2017). Some of the professionals working in psychosocial support and psychological first aid in disasters are psychological counselors. Psychological counselors were involved in PD and PSS activities during the February 6 Kahramanmaraş earthquake, considered the century's disaster (Ministry of National Education / General Directorate of Special Education and Guidance [MNE/GDSEG], 2024). The PFA experiences of the field experts working in these regions, their emotional states, their work in the earthquake zone, their traumatic stress levels, how they regulate their psychological resilience to tolerate it, and their sources of motivation are among the issues that need to be examined. For this purpose, PFA and psychological resilience will first be emphasized.

Psychological First Aid (PFA)

The term psychological first aid was first used by Drayer and his colleagues in 1954 (Drayer et al., 1954). PFA is a psychosocial intervention approach during or after a disaster, accident, terrorist attack, or event negatively affecting the individual/society order. It has been applied to children and adults after various social crises, and the area of use of PFA has expanded. The PFA practices aim to meet the basic physical-psychological needs of people during or after the event, to reduce the impact of the event on the individual and possible PTSD, and to support coping resources and mental health (Brymer et al., 2006). PFA is not a diagnosis or treatment method but one of the intervention methods in case of psychological crisis (Brymer et al., 2006; Ruzek et al., 2007; EverlyJr and Lating, 2017). Traumatic life events can occur in different ways, and the psychological reactions after these events can affect individuals at various levels (Aker 2012). Especially in moments of crisis such as earthquakes, which have the potential to affect large segments of society, PFA interventions can provide flexibility and adaptability to prevent this situation from turning into trauma. In the literature, studies show that implementing PFA can reduce risk and increase recovery after traumatic events (Aker, 2012; Kılıç and Şimşek 2018). Since it allows for flexible handling of the differences that may arise in practice, PMI can also be adapted to the developmental periods of children and adolescents; in summary, it is widely used. A PFA is developed as the first step in utilizing psychosocial services after a disaster. Meeting the basic needs of people affected by an event, such as safety and health, and providing psychological first aid are recommended in emergencies. This is followed by a more comprehensive mid-term psychosocial review and longer-term support (Housley and Beutler, 2007). According to Gispen and Wu (2018), all mental health professionals must know about PSS. It has been argued that basing the psychosocial support approach on PFA, which allows for rapid learning and implementation, is effective in reducing the risk of secondary trauma for mental health service providers and can prevent the stress of primary trauma. Since PFA is based on essential interventions such as “listening, monitoring, and bonding” and does not include counseling, psychotherapy, or any other treatment element, it is not limited to the practice of mental health professionals. As PFA is an early intervention, it can be used during or immediately after an incident. Sometimes, a few minutes are enough to complete the intervention; sometimes, the intervention can last for days or weeks. In some cases, if the intervention takes a long time, the traumatic situation/stress comes to mind (WHO, 2024; DEMP, 2024).

Psychological Resilience

Psychological resilience (PR) is a broad term that includes factors that prevent mental disorders. It is often defined as "resilience," "ability to overcome disasters," or "ability to adapt positively" (Luthar et al., 2000; Garmezy, 1991; Friborg et al., 2005). Psychological resilience draws attention as a concept that collectively includes protective factors to cope with traumatic experiences (Agaibi, 2005) successfully. PR includes social resources such as family and friends, social skills such as extraversion, communication skills, flexibility in relationships, the ability to establish close relationships such as trust

and hope, and the opportunity to utilize personal resources (Friborg et al., 2005). Today, PR is accepted as a multifaceted phenomenon that enables individuals to cope with traumatic life events healthily and is shaped by the combination of structural variables such as temperament and personality and unique abilities such as problem-solving ability (Campbell-Sills et al., 2006). It can be said that psychological resilience is related to family support (Basım & Çetin), personal characteristics, including individual factors such as social skills, communication, and self-confidence (Olsson et al., 2003), and social support (Mesidor & Sly, 2019). It is stated that maintaining physical health is a determining factor in psychological resilience in traumatic stress situations such as earthquakes (Trip et al., 2018). It has been stated that compassion fatigue and empathy (Lakioti et al., 2020) predict secondary traumatic stress; factors such as individual coping mechanisms, psychological support, and short-term change of employees are psychologically protective (Bayhan et al., 2023).

Going through a traumatic experience such as an earthquake and providing psychological support to trauma victims there can be overwhelming (Cansel & Ucuz, 2022). Polemikou (2021), an in-depth researcher on the subject, pointed out that while focusing on those who are exposed to trauma in the first degree after natural disasters, the people who help and support the victim are overlooked. Still, when their emotions are not addressed and social and psychological assistance is not provided, these people may take on the role of victims. Although it is thought that everyone will protect their psychological resilience in an individual sense and has such a physical code, psychological resilience is a complex structure affected by environmental and psychosocial factors (Southwick & Charney, 2023). Despite its complex structure, there is limited research on the resilience levels of professionals working in challenging situations. In addition to these views, it is thought that examining the experiences of psychological counselors who provide PSS or PR services after natural disasters such as earthquakes in terms of psychological resilience can be the first step in understanding this phenomenon and according to the results of this research, it is thought that it will provide helpful information and results that will be taken into consideration both in terms of delivering more qualified assistance to those who are served and taking into account the mental health of service providers. When all these are evaluated together, an issue needs to be investigated, such as which PD and PSS activities the psychological counselors working in the earthquake zone carry out while working in the disaster zone and how they perceive secondary traumatic experiences. The fact that the feelings and experiences of psychological counselors on this issue have not been determined may create a deficiency in understanding what they may experience. It may cause the relevant official institutions and organizations to act unplanned in these studies. It is evaluated that a qualitative examination of their status of having secondary traumatic stress experiences, their coping styles, and what they do to protect their psychological resilience is essential both in terms of measures and interventions to protect their mental health and the quality of the assistance to be provided to the people served. Although the subject is discussed in the literature in terms of disasters experienced in the past, it is argued that each disaster experience is unique and different psychosocial dynamics are

involved (Arasan Özbay, 2015; Cansel & Uzun, 2022; Mesidor & Sly, 2019; Tominaga et al., 2022). Although this situation has been discussed in previous studies, due to the nomothetic and idiographic nature of scientific knowledge, every experience is experienced within the uniqueness of the subject, and the phenomenal worlds of the subjects who experience these experiences highlight the sensitivity of this point. In this context, when each subject who has studied the earthquake phenomenon is considered in terms of its determinism at the point of being the agent of its own psychological world, the uniqueness of each experience in terms of quality, even if it is the same in quantity, draws attention from the moment it is experienced (Feyerabend, 2020; Husserl, 2012; Heidegger, 2021; Lakatos, 2014; Kuhn, 2021). At this point, although there are studies conducted for field workers who have experienced the earthquake phenomenon before, this study seems to be worth studying the uniqueness of the experiences of the subjects of this experience. Considering these dynamics, it is thought that focusing on the unique experiences of psychological counselors who provide PFA and PSS services to individuals affected by the February 6 earthquakes will make this research necessary. It is thought that identifying the resources that motivate psychological counselors to work in the earthquake zone will give ideas to field experts who want to work in such disasters and may even be a source of inspiration. Determining the factors that increase psychological resilience will provide insights into organizing and coordinating studies that can be carried out by both official and non-governmental organizations or individually. Within the framework of the rationale mentioned above and its importance, the aims of this study were determined as follows.

Psychological counselors who participated in voluntary PFA and PR services after the February 6 earthquake centered in Kahramanmaraş;

1- What are the sources of motivation for providing voluntary services in the earthquake region?
2- What are their PFA and PR activities in the earthquake region?
3- What are their efforts to protect themselves from traumatic stress in challenging situations and to maintain their psychological resilience?
4- What are their recommendations for the PFA and PSS specialists who will work in the region after them?
5- What are their feelings about the experiences they had during the process they served?

Method

This section includes information about the research model, some information about the school counselors who constitute the study group, the data collection tool used in the research, data collection and analysis, and the validity and reliability of the study.

Research Model

In this study, a phenomenological design approach, one of the qualitative research designs, was adopted. Phenomenology can be defined as a research method that aims to explore the meaning structures in the minds of individuals about a subject (Christensen et al., 2014). Phenomenology studies are about discovering the ordinary meaning of individuals' experiences with a concept or phenomenon (Creswell, 2021). It is essential to describe in detail the motivation sources, secondary trauma, psychological resilience, and coping skills of the counselors who voluntarily participated in the PFA and PSS teams. The contribution of their experiences to the literature in terms of secondary trauma is considered essential. Phenomenologists try to identify the multimodal perception of the phenomenon experienced by individuals and what is expected in how they view and react to it (Fraenkel et al., 2012). It is assumed that counselors who voluntarily participate in the PFA and PSS teams have similarities and individual differences in terms of their secondary trauma, psychological resilience, and coping skills. In this study, data were obtained through semi-structured interview questions addressing the experiences and perceptions of the participants.

Study Model

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Study Group

In phenomenological research, all participants must be in contact with or have experienced the phenomenon under study (Rolf, 2016). If participants have very different characteristics, it is difficult to identify the main principles and themes that can be drawn from their experiences (Miles & Huberman, 1994). Because phenomenologists need people who have experienced particular phenomena, they often prefer study groups that serve their purposes (Rubin & Babbie, 2016). This means that researchers choose who and where to study. Because participants will be happy to provide an understanding of

the research question and phenomenon at the research center (Creswell, 2021), in this study, within the scope of the central phenomenon of the research, the study group consisted of 14 psychological counselors who volunteered to participate in the PFA and PSS studies from outside the 11 provinces affected by the earthquake in the first degree. Criterion sampling, one of the purposeful sampling methods, was used in the study. The criterion sampling aims to clearly/explicitly describe people, events, objects, or situations with the qualities determined concerning the problem. The purpose of the research is the most important criterion that defines the requirements (Büyüköztürk et al., 2015). In this study, the requirements are as follows:

- Residing outside the 11 provinces primarily affected by the February 6 earthquake centered in Kahramanmaraş (i.e., not having experienced the earthquake directly).
- Being one of the psychological counselors who provided PFA (Psychological First Aid) and PSS (Psychosocial Support) services in disaster areas after the earthquakes.
- Having worked in PFA and PSS support services for at least one month.
- Not receiving psychiatric treatment (e.g., medication) for traumatic stress after the disaster. This criterion aims to minimize the risk of participants experiencing triggering symptoms related to post-traumatic stress.

Table 1. Information about the study group

Participant nr	Gender	Professional year	Marital status	Province of duty	Province served
P1	Male	7	Single	Çanakkale	Gaziantep
P2	Male	16	Married	Karaman	Gaziantep
P3	Male	15	Married	İstanbul	Gaziantep
P4	Male	7	Married	Bursa	Malatya
P5	Female	9	Single	Nevşehir	Malatya
P6	Female	9	Single	İstanbul	Hatay
P7	Female	10	Single	Sakarya	Hatay/Gaziantep
P8	Male	4	Single	Gaziantep	Gaziantep
P9	Female	29	Divorced	İzmir	Malatya
P10	Male	11	Married	Sivas	Gaziantep
P11	Female	5	Single	Tekirdağ	Gaziantep
P12	Female	23	Married	Isparta	Adana/Gaziantep
P13	Male	9	Single	Trabzon	Gaziantep
P14	Female	4	Single	Kayseri	Malatya

Considering the information about the volunteer psychological counselors included in the study, as shown in Table 1, seven participants were male, and six were female. The participants' working period in the profession shows a distribution between four and 29 years. Seven participants were married, five were single, and one stated they were divorced. The participants work in provinces other than Istanbul (two participants). The province with the highest number of volunteer participants is Gaziantep.

Data Collection Tool

A semi-structured interview form and a personal information form the researchers created were data collection tools. With the personal information form, information such as the provinces in which the participants work (being outside the 11 provinces affected by the earthquake), the provinces in which they worked during the disaster, gender, age, and professional working hours was obtained. First, the literature on psychosocial services in disasters, secondary traumatic stress, psychological resilience/well-being of disaster workers, PFA, and PSS studies was reviewed, and an open-ended question pool (suitable for a semi-structured interview format) was created. The content validity of the questions in the prepared forms was ensured within the scope of the evaluation made with an academician who is an expert in the field and two psychological counselors who have participated in PFA and PSS studies for at least one month. Before starting the study, the first and second authors of the study piloted the interview form with one psychological counselor who participated in PFA and PSS activities. The data were subjected to content analysis. In the pilot study, the appropriateness of the questions to the purpose of the research, whether they were understandable, and whether their order was appropriate were evaluated. As a result of the evaluation, it was concluded that it was relevant in terms of form, purpose, and scope, but data saturation could be reached with five questions instead of eight. When qualitative researchers believe that they have reached data saturation with the fewest possible questions, it may be more functional to reduce the questions (Patton, 2014). With the new form, pilot interviews were conducted with two more psychological counselors working in the disaster area, and it was seen that the questions were functional and appropriate in scope due to the pilot application. Since no changes were made to the questions, the data obtained in the pilot study were evaluated together with the other data within the scope of this study. **Data Collection**

To reach the participants during the data collection process, they were first invited to the research by sharing the Google form in the WhatsApp groups of those working in the disaster area. Before starting the interviews, the participants were informed about the research content, and it was stated that they could leave the research if they wished. The questions in the personal information form were collected via "Google form". In the form, consent was obtained for the "processing of my data, including my sensitive personal data" defined in the Personal Data Protection Law No. 6698 (KVKK), "I agree to the use and sharing of my data without going beyond the purpose and scope expressed above (for scientific research purposes and the use of my data in qualitative research in the form of P-1: Participant 1, P-2...)". After the consent was obtained, interviews were conducted with the participants in the study group on different days during the summer

of 2023 according to the research schedule. Since the psychological counselors included in the study and the researchers conducting the research were in other provinces in Turkey, interviews were conducted and recorded through the Zoom program in standard periods when the researchers and participants felt appropriate and comfortable. Before the interview, the participants were informed again about the study's purpose and the interview's confidentiality. They were asked whether they volunteered to participate, and their verbal consent was obtained. Each interview with each counselor in the study group lasted an average of 25 minutes, and interviews with 14 people lasted approximately 350 minutes. The interview questions were directed to the participants in a predetermined order. When the interviews were transcribed, participant numbers were given without specifying the participant's name (e.g., P-1, P-2...). In the interviews, semi-structured questions were asked to understand the feelings and thoughts, experiences, sources of motivation, and coping skills of the counselors who participated in PFA and PSS studies. It is thought that the format of the interviews, the questions, and how the interviews were conducted with the participants enabled the researcher to focus on the participants' experiences and establish interactive communication.

Data Analysis

Qualitative research aims not to express the collected data numerically, as in quantitative research, but to present the research topic and question to the reader factually and descriptively. In addition, direct reference should be made to the data collected in the presentation of the findings (Yıldırım & Şimşek, 2018). Qualitative data analysis is the process by which researchers organize data, divide them into units of analysis, synthesize them, discover important variables, and decide which information should be reflected in the report (Bogdan & Biklen, 1992). Creswell (2021) states that qualitative data analysis is done in six steps. In the first step, data are prepared and organized for analysis. The second step is to read and analyze all the data collected. It is the formation of information/impression about the general ideas of the participants and the general mood accompanying the ideas. The third step is coding the data. Coding is organizing data into categories and writing words that represent the categories (Rossman & Rassil, 2012). The fourth step involves the process of identifying themes that emerged as a result of coding. Themes are significant outputs for qualitative research. The coding of the data set may differ from person to person. Coding is more than just coding; it is making connections. Coding is the backbone of analysis. Combining these skeletons, i.e., codes, creates a working skeleton for analysis. Manual coding gives researchers more autonomy and control over their research (Saldana, 2019). The fifth and sixth step is developing descriptions, themes, and how they will be presented in the qualitative narrative.

In this study, 14 interviews were recorded, and a folder was created for each participant. Then, the audio-recorded interviews were transcribed in the Microsoft Office Word program without changing the conversations. The transcriptions were printed out, and coding was done manually. The data obtained from the interviews were subjected to content analysis, considering the steps described above. The concepts used for coding

were related, and themes were formed by combining them. Tables were used to present the themes.

Research Credibility (Internal Validity) - Transferability (External Validity) and Consistency (Internal Reliability) - Verifiability (External Reliability)

This study used validity strategies commonly used in qualitative research (Creswell, 2015), such as triangulation, detection of researcher bias, and rich and dense descriptions to ensure validity. Triangulation techniques are perhaps the best and most widely used strategy to increase studies' internal validity (credibility) (Merriam, 2013). In this study, triangulation of data analysis was developed by combining the analysis after it was conducted with different analysts (Patton, 2014). Analyst triangulation is the use of multiple analysts to review the results. In other words, it is the independent analysis of the same qualitative data by two or more people and the comparison of their results (Patton, 2014). Within the scope of the study, the researchers coded the interview texts, and expected results were reached by interviewing several times about the codes produced. According to Yıldırım and Şimşek (2018), the following methods were used to ensure the external reliability of the research. These are defining the research methods and stages clearly and understandably and expressing what was done in data collection, analysis, interpretation, obtaining research results, and storing raw research data in a way others can audit. For verifiability-consistency; the research questions were clearly stated, the data were collected in detail and in accordance with the purpose of the research questions, the data coded by a researcher were compared with the data coded by an academician experienced in qualitative research and the second author of the study, and the codes and then the themes that would best reflect the data were decided. In qualitative research, the similarity index of the codings made on the same data is essential in revealing the study's reliability (verifiability-consistency) (Fidan & Öztürk, 2015). According to this model, internal reliability (verifiability) can be calculated using the formula: (Consensus/Total consensus/total number of consensus+disagreement X100). According to the coding audit that gives internal reliability (consistency), the consensus among coders is expected to be at least 80% (Miles & Huberman, 1994; Patton, 2002). This study calculated the consensus as (196/196+20X100=90.7%).

Findings

In this section, the findings related to the participants' sources of motivation for going to the earthquake zone and participating in PFA and PSS services (see Table 2), the PFA and PSS activities they carried out in the earthquake zone (see Table 3), the methods they used to protect their psychological resilience (see Table 4), the needs to increase their psychological resilience (see Table 5), and the emotions they experienced during the PFA and PSS process (see Table 6) are presented. In the presentation of the findings, direct quotations related to the themes are given in the relevant sections.

Findings on the motivation sources that enabled the participants to go to the earthquake zone and to participate in PFA and PSS services during their stay

The findings related to the motivation sources of the psychological counselors who participated in the study and who provided PFA and PSS services in the disaster area regarding going to the disaster area and helping others there revealed that although each participant had their motivation sources, these sources could be grouped as individual motivation sources such as assisting, volunteerism and sense of loyalty and professional motivation sources such as professional responsibility, professional satisfaction and cooperation. The sources were grouped into two main sub-themes; codes and frequencies were given and supported with direct quotations from the participants regarding their sources.

Table2. Themes and codes related to sources of motivation for going to the earthquake region and working there

Themes	Codes
Sources of Individual Motivation	Willingness to help
(f: 23)	Sense of loyalty
	Professional responsibility
Sources of Professional Motivation	Willingness to work together with colleagues
(f: 8)	Conscientious responsibility
	Occupational satisfaction

Among the individual motivation sources, willingness to help came to the forefront. When we examine the participants' motivations for going to the disaster area, we see they want to be a balm for others' wounds, help others materially and spiritually, do their best, and help in some way. The statements of the participants regarding helping are as follows.

P12: "*One of the things that motivated me personally was that I felt responsible for the suffering of the people there.*"

P1: "*We were fully everything; we were fully willing to give of ourselves to heal the wounds of the people there.*"

Among the sources of occupational motivation, it was found that occupational responsibility came to the forefront, while cooperation and occupational satisfaction sometimes accompanied it. As professional responsibility, it was stated that a sense of responsibility and a sense of responsibility brought by the profession constitute motivation. One participant (P-9) said she felt a sense of responsibility to help the disaster victims and not feel alone because she had professional and similar experiences.

P3: *"I think it is a characteristic of the profession. I like to help people; I like helping out."*

P9: *"My motivation in the professional sense, I should say, is professional responsibility...Also, during the Izmir earthquake, we felt very alone."*

Findings related to the studies conducted by the participants in the earthquake zone

The findings regarding the activities of the participant psychological counselors who provided PFA and PSS services in the disaster zone were grouped under three different sub-themes: PFA activities, PSS activities, and artistic activities. While PFA activities are mostly first-intervention, PSS activities are more comprehensive and have a certain systematization.

Table3. Themes and codes related to the studies conducted in the earthquake region

Themes	Codes
PFA Activities (f: 21)	Tent touring
	PFA coordinatorship
	Playing games
	Needs assessment
	Listening
	Emotional support
PSS Activities (f: 17)	Group work and psychoeducation
	Individual interview
	Making an activity
	Educational and vocational guidance
	Therapeutic games
Artistic Activities (f: 4)	Coloring activity
	Music activity
	Cinema activitiy

The data on what the psychological counselors who participated in PFA and PSS services did in the disaster area and which PFA and PSS activities they did in a day were subjected to content analysis. When Table 3 is examined, there are three themes: PFA, PSS, and artistic activities, as well as the frequencies of the codes related to these themes. Within the theme of PFA activities, tent visiting and PFA coordinators came to the forefront. The participants conducted PFA activities by visiting the tents, listening to the earthquake

victims, and accompanying their pain. They also stated that they visited the tents and determined the needs of the earthquake victims.

The following excerpts provide explanations about the PFA activities carried out by counselors.

P1: *"We listened to people's feelings, we felt that they shared and relaxed..."*

P8: *"Our work in the afternoon was to visit the tents or containers, and we were in touch with their problems and pains...* "

P9: *"We tried to provide psychological first aid to those people. We talked, chatted, and tried to accompany the earthquake victims' pain ..."*

P12: *"...I was in the field there, we provided psychological first aid to the children, which we call PFA. We met with parents, we gathered more listeners."*

P8: *"...We were conveying the essential needs of the people we talked to to our coordinators and delivering them to the earthquake victims."*

P1: *"Generally, when we went on the first day, we visited the tents to have a good command of the field. On the first day, we identified the needs in the tents."*

As seen in the excerpts below, five of the study participants were engaged as PFA coordinators during the PI activities.

P4: *"As I said, we took part in tent cities and coordinated with volunteers there."*

P10: *"...we went there on duty under the national education... There is a lot of chaos in the earthquake zone... As a coordinator there, I was responsible for establishing the system.*"

Within the theme of PSS activities, they mostly conducted activities and stories with children, individual interviews, educational and vocational guidance activities, and psychoeducation activities. Sample quotations about these activities are given below.

P9: *"...There are already routine activities with children such as painting, coloring, play dough, games that can be played outside if it is not cold outside, jumping rope, skipping stones..."*

P12: *"...Later on, support and training courses were opened in container schools, and there were both eighth and eleventh graders when I was there. We went to those children, explained the exam system, and introduced professions within the scope of vocational guidance ...*"

P8: "When we saw children, we needed to have individual interviews with them, and we took notes about them. We were having individual interviews with them to increase their well-being..."

The excerpts below show that the fieldworkers participating in the study engaged in artistic activities such as painting, music, and cinema.

P9: *"...There are already routine activities with children such as painting activities, coloring activities, play dough, games that can be played outside if it is not cold outside, jumping rope, skipping stones, music, especially music that was good for the children..."*

P6: *"There, we were mostly doing drama activities, large group activities, and music activities that we had planned with the children one day in the evening. We were doing these until noon, and then we reserved the afternoon for the adolescent group...maybe we can think of it as a psychoeducation."*

Findings on the protective factors for participants' psychological resilience in the earthquake zone

The findings regarding the methods used by the participants to maintain their psychological resilience during the challenging experiences they experienced in the disaster area during the process of providing PFA and PSS services are as follows. Some participants stated that they mainly engaged in emotional activities to maintain their psychological resilience, while others stated that they engaged in cognitive activities, and some participants stated that they engaged in physical activities. Table 4 presents the themes and codes and is supported by direct quotations from the participants' views.

Table 4. The methods used by the participants to maintain their psychological resilience in the earthquake zone

Themes	Codes
Emotional Activities (f: 26)	Sharing feelings and experiences with colleagues
	Empathizing
	Religious beliefs and values
	Suppressing compulsive emotions
Cognitive Activities (f: 5)	Focusing on the positive - shifting focus cognitively
	Mental preparation
Physical Activities (f: 5)	Group excursion activities
	Playing games with colleagues
	Self-care

In the theme of emotional activities, sharing emotions and experiences with colleagues, empathizing, and focusing on the importance of religious beliefs and values were mostly emphasized. In the following excerpts, counselors expressed the relaxing effects of coming together with groups of colleagues, sharing and spending time together.

P6: *"We used to get together every evening. Our work would end around five or six o'clock and last until seven at most. We always had our dinners together, we tried not to hang out separately, and in the evenings, we were actually deciphering what we did that day. What did we do today? What affected us, what was good for me, what was bad for me? We constantly shared these things among ourselves who those who wanted to share..."*

P9: *"Our roommates were very good. Six of us slept together in the same room. We were gathering together in a small group and talking about ourselves, telling our feelings... This was incredibly good..."*

P1: *"If you talk to the coordinators in the region, they will say the same. Because we acted together, when one of us fell down or had an emotional moment, a unity was established as friends, as buddies, not as parents, but really as brothers and sisters. Everyone there supported each other financially and emotionally; they may or may not have money, or I don't know, our friends helped each other a lot."*

P10: *"But when we shared this with our colleagues in the evening, of course, we felt a little bit relieved, and we definitely played games in the evenings. We got out of the tiredness of that day and played together in the evening... We played taboo and other different games."*

In the theme of emotional activities, it is seen that religious beliefs and values are important as a source of personal coping. Quotes related to this are given below.

P2: *"Well, our biggest resistance here was, of course, our faith. Our faith gave us the keys that guided us in many issues in this regard, that was the priority".*

P13: *"...Apart from that, I was praying, for example...".*

The theme of cognitive activities was also stated to be important in terms of protecting psychological health. Those working in the disaster zone emphasized that they focused on the positive in negative situations, and it was important to change the focus. Quotations that can be examples of the opinions of the participants on this subject are given below.

P1: *"Maybe I will meet the children in the place where I went again in three or five years. Thinking that I would be in contact with the people there again and that they would be fine caused me to focus on the positive. Even this made me feel very good."*

P7: *"You should be very good at emotion control in the face of negative situations. Yes, we can feel sad, too. Some things are horrifying, but in the end, we should not let ourselves go and get so upset in front of these people. We need to be patient. We need to cognitively regulate our reactions."*

It was observed that the participants went on group trips and played physical games with colleagues to maintain their psychological resilience. These activities to maintain

psychological resilience were combined under the theme of physical activities since they involved physical movement.

P6: *"Every time we go out, the children come in front of our container because they now know the container where we stay. Playing games on that street, playing ball, and being together with them makes us feel good; there is a normal life here now. Even as colleagues, we were playing ball with them after the PFA and PSS work was over...sometimes we were just playing volleyball amongst ourselves and relaxing..."*

P11: *"Group excursion activities, even these were really motivating. Anyway, the professors working in Antep took us to some parts of Antep during this process."*

Needs and requirements of counselors working in the earthquake zone to increase their psychological resilience

The findings regarding the needs and requirements of the participants to increase the psychological resilience of psychological counselors in charge of providing PFA and PSS services are as follows. It is seen that the participants have expectations from the psychosocial support team to meet their needs. Participants also emphasized the importance of creating personal coping resources. It was emphasized that cognitive and emotional preparation is important in the disaster process, and protecting physical health is also important. The table below shows the findings regarding the needs and requirements of the participants regarding psychological protective factors, and direct quotations are used to describe the findings.

Table 5. Themes and codes related to the needs of psychological counselors in the earthquake region to increase their psychological resilience

Themes	Codes
Expectations from the psychosocial support team (f: 24)	Sustainable/systematic pss
	Supervision support
	Material support
	Short-term work
	Orientation needs
	In-service training request
	Basic needs support
	Sightseeing and cultural activities
	Emotion regulation
	Psychological resilience

Personal Ways of Coping (f: 13)	Create individual sharing spaces Religious coping Giving personal meaning to circumstances
Cognitive Preparation (f: 12)	Competence in PFA Preparing for regional conditions: gaining knowledge Interview with those with field experience
Emotional Readiness (f: 7)	Considering social and cultural conditions Helping in a neutral/empathic way Emotional readiness for the circumstances Allowing time for adaptation
Maintaining Physical Health (f: 6)	Physical preparation for the conditions Doing sports and activities

Since the participants have provided PFA and PSS services for a certain period of time and have had certain experiences in the field, they are in a position to give suggestions on the needs of field workers to increase their psychological resilience. Participants stated that they had the highest expectations from the psychosocial support team. These expectations are categorized into two groups: the content of the work/ service provided and working conditions. Sustainable/systematic PSS, supervision support, material support, and in-service training are expectations regarding the content of the work, short-term work, orientation needs, and basic needs support, among other working conditions. Quotes related to this are given below.

P3: "New groups need to come, but how sustainable it is, it needs to be in a cycle".

P2: "Or, if necessary, they should be supported mentally by the coordinators, not by giving a seminar and withdrawing, but by being in regular communication".

P1: "Maybe our teachers, psychological counselors, and friends can be supported in terms of materials."

P6: "In this sense, I think the need for shelter, the need for food and drink, the need for materials, all of these are much more important".

In the theme of creating personal coping resources, emotion regulation, psychological resilience, and regular sharing codes stand out. In addition, it is seen that experiences are shared, religious coping resources are used, and the importance of adapting to the conditions is emphasized.

P2: *"You will hand over to those locomotives...Because if the people in that region, the counselors, our friends whom we call psychological counselors, cannot keep themselves alive, this time emotional mistakes can bring us other social problems. There are all kinds of pain in life. There are all kinds of difficulties".*

P13: *"I mean, we talked a little bit while we were there, but you definitely need to pay attention to a few points before you go. Before going, they should ask the question, how strong I am personally and professionally in terms of providing this service".*

Participants stated that before going to the disaster area, field workers should prepare themselves cognitively for the field conditions. They stated that cognitive pre-preparation should be done by means of competence in PFA and Psd, preparation for the conditions, and interviewing with those who have field experience. Two participants expressed their views on this issue, which are as follows:

P4: *"...you will sacrifice your comfort... maybe there is food and stuff, but I mean, there is no restaurant like this and you will not be able to eat the food you want... I mean, it is not the job of a whiny man...You will sacrifice your comfort".*

P14: *"For example, first of all, if he researches this before going, what is good for me? I mean, his/her knowledge, you know, the knowledge he/she got in undergraduate and graduate school... Also, as I said, I think it would be better if he contacts people who have worked there before and learns what is needed, if he has information about it before he goes".*

When the emotional readiness theme was analyzed, it was stated that they would be more emotionally ready with measures such as taking into account the social-cultural conditions of the volunteers who will conduct fieldwork, helping in an impartial/empathic way, and allowing time for emotional preparation and adaptation to the conditions. Excerpts that may be examples of the views of the participants on this issue are given below.

P8: *"...due to the nature of trauma, I don't think there is anything that can be prepared emotionally before going to the earthquake and disaster area, but I still think that a personal emotional preparation should be made...in addition to this, cognitive trauma training can be given to volunteers".*

P11: *"...When we go, there is an adaptation process because it is a new environment, but the adaptation process is very short. They need to at least give themselves a day off, go through a screening adaptation process, and then they need to plan that day from wherever they will start".*

Participants stated that due to the nature of the earthquake zone, physical preparation for the conditions would increase the psychological resilience of volunteers.

P-7: *"I mean, what should the counselor himself/herself do, that is, what should he/she do when he/she is emotionally stuck there? First of all, he has to think very carefully and*

go. I mean, he/she has to give up this once there. Personal hygiene, self-care. She needs to suspend these for a while. Let the water run, let me wash my face... He has to go with these things in mind."

Emotions of psychological counselors working in the earthquake zone regarding their experiences

Participants may have been exposed to challenging experiences during the process of providing PFA and PSS services in the disaster area. After these experiences, it was revealed that they are currently experiencing emotions that can be grouped as pleasant and unpleasant emotions. Table 6 presents Themes and Codes, and the findings regarding the emotions of the participants are supported by direct quotations.

Themes and codes related to emotions experienced by psychological counselors

As a result of the analysis of the data on how the counselors who participated in the PFA and PSS services currently feel themselves, two different themes emerged: pleasant feelings and unpleasant feelings.

It was observed that the volunteers who returned to their places of residence after providing PFA and PSS services in the disaster area experienced different emotions after their field experiences. The emotions experienced by the participants in the form of feeling good, happiness, emotional relief, and peace were categorized under the theme of pleasant emotions. Quotes that may be examples of these emotions are given below.

P1: *"Maybe I will go there in 3-5 years; maybe I will go there soon. It would be better for me to get in touch with the people there again and see if they are doing well. But right now, even talking about these things again made me feel very good".*

P3: *"Actually, the people I helped came to my mind. The smile on their faces, their happiness, knowing that I helped them... Remembering made me feel good under those difficult conditions".*

The emotions experienced by the participants in the form of sadness, secondary traumatic experience, remembering the pain, regret, anger, and anxiety were categorized under the theme of unpleasant emotions. Quotes that may be examples of the unpleasant emotions experienced are given below.

P3: *"But on the other hand, I remembered the destruction. I mean, it came to my mind again, but this is real, so even if I don't feel sad, there was still a lot of pain there".*

P3: *"...I mean, to be honest, I didn't feel anger towards them after that, the authorities and those who didn't do their job properly there..."*

P13: *"...When I talk about these things, I mean, my mood fluctuates... I wonder if there will be another earthquake? I feel more alert".*

Discussion

In this study, the sources of motivation of the psychological counselors who volunteered in the earthquake region to provide assistance services in the region, the work they did while they were there, and how they maintained their psychological resilience in challenging situations were qualitatively examined. In addition, the suggestions of other volunteers who will go there to provide voluntary services on how they can protect their psychological resilience and their feelings about their experiences there were examined. In a damaging and risky ecological event such as an earthquake, there are resources that motivate people to help the victim. It is seen that individual motivation sources such as the desire to help, volunteerism, and sense of loyalty are the driving forces for psychological counselors to go to the disaster area and provide assistance there. As a matter of fact, psychological counseling is a profession requiring professional expertise (requiring a certain formal education) that aims to provide help to people. Although there are individual motivation sources, it is seen that there are also professional motivation sources such as professional responsibility and satisfaction, cooperation among colleagues (acting together), conscientious obligation required by the profession, and the suitability of the individual conditions of individuals as experts.

When individuals have personal coping resources, they make free choices and equip their motivation levels with intrinsic resources (Erdener, 2019). Figley (2002) argues that factors such as empathy, alleviating the pain of the victim, and willingness to help provide internalization in challenging events for those who offer help. In a sense, he says that doing something in the face of the negative Table takes people out of despair and acts as a catalyst for healing. The well-being created by helping others is frequently mentioned among the motivational factors among disaster workers (Vollhardt, 2009). For example, in a study, it is seen that helping others is an important source of motivation for disaster workers (Gülyol, 2024). Similarly, in this study, it can be thought that psychological counselors in the earthquake zone were intensely emotionally satisfied, and this may be a source of motivation.

It is seen that the counselors who participated in PFA and PSS services conducted PD activities such as visiting tents, coordinating PFA, conducting activities, and identifying needs during the day. In contrast to PFA, they also carried out activities for children, such as emotional treatment using healing stories, individual interviews, educational and vocational guidance, group work, and psychoeducation, which involve more psychosocial intervention and require professional expertise. When we look at artistic activities, it is seen that counselors engaged in painting, music, and cinema activities. Psychosocial support and psychological first aid in disasters covers "the whole set of multidisciplinary services carried out at every stage in the disaster cycle, including ensuring that the affected people realize their own capacities and become empowered in the process of returning to their 'normal' lives after the disaster, preventing psychological disorders/incompatibilities that may arise, re-establishing/developing relationships at the family and community level, increasing their ability to cope with future disasters and emergencies, recovery, recovery skills and supporting aid workers"

(Ministry of Family Labor and Social Services, [ASP, 2024: s. 20-21]). In a qualitative study conducted with mental health workers working in the field in disasters, it was stated that the experts in charge performed activities such as visiting tents, needs assessment, group psychoeducation, individual interviews, employee support practices, artistic activities, group activities with children, painting, coloring, and playing games (Ertuğrul, 2022). It was reported that psychological counselors working with disaster victims mostly conducted group psychoeducation activities, group activities, and individual interviews (MEB, 2024). In the current study, it was revealed that psychological counselors included artistic activities, group activities, and individual interviews. Although symptoms of trauma-related disorders are seen in the early period after disasters, the first contact with the person exposed to the disaster should be within the framework of PFA (listen-watch-connect), not psychotherapy or drug intervention (DEMP, 2024; IASC, 2017; Yıldırım & İskender, 2021). Psychological first aid is applied to everyone. First, safety is ensured, then information, focusing on understanding the needs of the person, organizing the social environment, guiding the person in a way to activate support mechanisms, and all the while, the person should be allowed to experience and express their emotions (Ruzek et al., 2007).

It is important for aid workers and volunteers who come into contact with children to know the behaviors appropriate to the developmental characteristics of children, appropriate communication, and intervention methods to be established with children (Demircioğlu et al., 2019). Activities that accelerate children's return to normal reactions after trauma are games and art activities. According to the Ministry of National Education (MoNE, 2001) and the United Nations International Children's Emergency Fund (UNICEF, 2017), psychosocial support activities often incorporate painting, art, and music as tools in initiatives like “safe place drawing,” which helps children feel secure after the trauma they have experienced, thought about, or felt. Other activities include “social atom drawing,” which enables children to identify social support resources, and alternative story writing, which encourages them to look toward the future with hope and share their emotions. These activities have demonstrated therapeutic effects on childrenIn some cases, individual counseling may be needed for psychological recovery after PFA, PSS, and group-based interventions. This is because the lack of any support can make recovery more difficult and lead to greater psychological problems in the future (IASC, 2007). In a study conducted with young people, it was reported that children who experienced epidemics and disasters felt psychologically better and relaxed after artistic activities such as painting, photography, and video shooting (Cox et al., 2017).

Counselors who participated in PFA and PSS services reported that they coped with their challenging experiences by sharing experiences and emotions with colleagues, religious beliefs and values, sharing/explaining, empathizing, and emotional activities such as suppressing or regulating emotions. Some participants stated that they maintained their psychological resilience by doing cognitive activities such as focusing on the positive, changing the focus, or mentally preparing for the circumstances. In addition, counselors pointed out that protecting themselves physically by playing games involving physical movements with colleagues and taking care of their self-care in difficult conditions is

important in maintaining psychological resilience. Even if aid workers have not experienced the disaster, they are in close contact with those who have. They are repeatedly exposed to the disturbing details of the traumatic situation, sometimes physically by seeing and sometimes by listening. Studies in the literature indicate that psychological symptoms, especially traumatic stress, are frequently seen in aid workers (Arasan Özbay, 2015). In addition, the lack of adequate social sharing is seen as an important risk factor in this regard (Adams et al.., 2008; Betts Adams et al.., 2001; Haksal, 2007). In PSS studies, it is considered as one of the crucial points that service providers should empathize with both the victims and each other and provide psychological support through understanding, identify and direct those who need specialized services, and take into account social and cultural characteristics while doing so (Türk Kızılayı, 2008).

People who provide psychological support in disasters or crises should take into account the control sub-dimension (Kobasa, 1967), one of the sub-dimensions of psychological resilience, even if they resort to social support resources. Kobasa explained this situation by believing that people have the power to control or influence the events that occur in their lives. Accordingly, the person finds the necessary power in himself/herself to change the events in his/her life cognitively and emotionally and believes that he/she can affect the results (Cited in Terzi, 2008). The subcomponents of psychological resilience include tolerating unpleasant emotions, actively noticing, calmness in the face of triggering events, recognizing reality, cognitive reframing in accordance with reality, and creating new goals (Karaırmak & Bugay, 2020). In this study, focusing on the positive—engaging in cognitive activities such as shifting attention, mentally preparing for challenging conditions, or suppressing emotions—can be categorized within this framework. Religious beliefs and values, which are integral concepts in positive and religious psychology, are recognized as coping mechanisms that facilitate acceptance of experiences in situations such as earthquakes and epidemics (Finchman & May, 2021; Zhang et al., 2022). The individual continues his/her life with high motivation and makes his/her life choices freely (Kayacı & Özbay, 2016). The fact that the experts participating in the study organize their own lives and produce alternative goals in the face of possible problems and obstacles suggests that their psychological resilience may be high.

Participants stated that the psychological resilience of psychological counselors working voluntarily in the earthquake zone can be increased by providing sustainable/systematic PSS services, supervision and material support, short-term work, orientation studies, in-service training, meeting their basic needs, sightseeing, and cultural activities. Professionals who will work in the earthquake zone were advised to regulate emotions, increase psychological resilience, share experiences, use religious coping mechanisms, accept and adapt to challenging conditions, and create personal coping resources by doing sports and artistic activities. It was also emphasized that they should develop themselves and gain competence in PDM, make cognitive self-preparation by interviewing those with field experience, and make emotional preparation by considering the social and cultural conditions in the regions where they will work and trying to help in an impartial and empathetic way. Finally, the importance of allowing time for

adaptation and being physically ready for the conditions was also emphasized. The basic stages of psychosocial intervention are assessment of needs and resources, psychological first aid, mobilizing, referring and directing the community, planning sustainable-long-term studies, creating an information center, supporting to the employee, training, monitoring and evaluation activities (Erdur-Baker & Doğan, 2017).In the research, findings such as anxiety, feelings of inadequacy, avoidance, detachment, and personality dissolution occur more in those who work with people who have experienced trauma even though they are not equipped with education (Chrestman, 1999; Devilly et al., 2009). Multidisciplinary intervention is very important in disasters. Since each disaster is unique, it is thought that receiving support from other team members will have a positive effect on psychological resilience when the experts in the team encounter a situation that they have not experienced before. During the August 17 and November 12 earthquakes, it was observed that the experts who worked and were affected by the disasters also benefited from group work. Such professional practices have a preventive function against conditions such as anxiety disorder, depression, and post-traumatic stress disorder (Aktaş, 2003). In a study, Kahil (2016) states that factors such as acceptance of challenging working conditions, cognitive and emotional preparation, orientation studies, acceptance, and adaptation to challenging conditions make significant contributions to reducing secondary traumatic stress in the earthquake zone and attribute this to individual characteristics. Although Çoban (2020) stated in his research with disaster workers that professional tenure (cognitive, emotional, knowledge, and hardware experience) does not mean anything at the level of psychological resilience, Erdener (2019) argues that such factors have a healing effect. Experts (İnce, et al., 2013), working on a literature on the psychology and sociology of religion, explained in detail that religious and spiritual coping resources are protective factors in the field research they conducted immediately after the February 6 Kahramanmaraş earthquake.

It is very important for people who come into contact with people exposed to earthquakes to be prepared for their psychological health and working conditions in the disaster area. Especially in sudden disasters such as earthquakes, since people will find themselves working in a difficult and complex environment, not only mental health workers but also aid workers who will come into contact with anyone exposed to disaster should have knowledge about psychological first aid, which is the first necessary intervention in disasters. Mental health services in mass trauma and disasters contribute to the productivity of employees by providing the necessary social training and physical improvement for establishing security, mourning, and re-functionalizing the social structure (Yıldız et al., 2023). Unlike normal conditions, experts who provide psychosocial support are asked to provide crisis management, psychological first aid, information about the conditions, supervision, short-term working intervals, correct sharing of tasks (having clear information about what kind of service will be provided) in times of disasters, a role confusion that may occur will naturally reduce stress and burnout (Bakım et al., 2012).

There are also studies that point out that employee support activities should be continuously accessible to employees to reduce the symptoms of traumatic stress and psychological wear and tear (Özen & Cerit, 2018; Hasdemir, 2018; Robinson, 2013; Tominaga et al., 2020). In this study, psychological counselors similarly mentioned the emotional, social, physical, and behavioral effects they faced and expressed the need for support. It is thought that it will be important for those working in this field to have continuous access to support mechanisms at certain intervals in terms of secondary traumatization. In this study, factors such as in-service training, orientation, cognitive preparation, and knowing the conditions were found to be important. Pak et al. (2017) also found that there was a significant difference between the levels of psychological resilience according to the status of receiving in-service training in their study with professionals working in the emergency department. The psychological resilience level of the participants who stated that they received in-service training was higher. It is thought that receiving supervision support while working in the disaster field reduces the likelihood of making mistakes, stress can be managed, and it contributes significantly to increasing psychological resilience. According to Erdener's (2019) study, the psychological resilience levels of individuals who receive supervision and those who do not receive supervision show a statistically significant difference. Turgut (2014) also found that lack of supervision is one of the predictive variables of secondary traumatic stress, depression, and indirect trauma.

Although working in disasters may seem emotionally traumatizing, it is stated in various sources that working in disasters can also have positive aspects. Protective factors play a decisive role here (Gizir, 2007; Karaırmak, 2006). After challenging experiences, individuals are able to witness people's efforts and change them in a positive way, despite life's challenging factors (Tedeschi and Calhoun, 2004). It is seen that the participants experience more pleasant emotions than unpleasant ones. Studies examining the frequency of positive and negative emotions during challenging life events suggest that older adults tend to experience more positive emotions compared to younger and middle-aged adults (Scheibe & Carstensen, 2010), whereas adolescents report more negative emotions than adults (Aldao & Nolen-Hoeksema, 2012). This indicates that the ability to regulate emotions may underlie these age-related differences. In a qualitative study conducted with disaster workers involved in the February earthquake, participants commonly reported emotions such as anxiety, fear, guilt, helplessness, and sadness. These feelings were attributed to a lack of experience and insufficient training rather than the services provided (Arslankoç et al., 2024). In this study, the participating psychological counselors had many experiences during their stay in the earthquake zone. It is thought that sharing feelings about these experiences will both show the essence of what is experienced and provide a sense of empathy. As a matter of fact, the participants stated that they experienced pleasant emotions such as happiness, feeling good, emotional relaxation and peace. Participants also experienced unpleasant emotions such as sadness, pain, regret, anger, anxiety, and secondary traumatic experiences. It is thought that pleasant emotions such as happiness, well-being, emotional relief, and peace may reflect the well-being that arises from helping others.

On the other hand, it can be thought that sadness, pain, regret, anger, anxiety and secondary traumatic experiences emerge as anger by thinking about the emotional states of those who stayed there after leaving the earthquake zone. This is because people can feel compassion for people who have had difficult experiences when they leave them behind. Considering that human beings are essentially an unfinished being (Gençtan, 2017), it can be said that this is also natural. It comes to mind that every new experience can be thought of as pregnant with new selves in human existence (Lacan, 2022). At this point, it is seen that each phenomenon that the volunteers working in the earthquake zone see, speak and experience will result in new selves in the phenomenal areas of the volunteers (Heidegger, 2021).

Recommendations

This research was conducted using a qualitative design. Opinions and suggestions were identified. According to the results obtained in line with these opinions and suggestions, contents in the form of "psychoeducation/self-help groups/sharing groups" can be prepared for field experts who provide volunteer services in the earthquake zone, and these can be tested in a quasi-experimental design. It has been seen that physical health, self-care, and establishing social relationships are important to regulate the psychological resilience, compassion fatigue, and emotional states of experts working in disasters. As researchers, we had the chance to observe from the primary source that sharing between colleagues is important in volunteering in PFA and PSS studies. Psychological counseling in the disaster area shows that first contact is significant rather than clinical guidance or psychotherapy, and this is directly related to listen-watch-connect in psychological first aid. We can say that the importance of having a person who listens, understands, and is willing to share their pain in the first moment in the face of a challenging life is not only limited to the literature but is also an essential supportive element in practice. In summary, theory and practice have supported each other in this regard.

We think we should emphasize the importance of coordination in the process, as there are many volunteer experts from organizations such as the Ministry of National Education, the Ministry of Family and Social Policies, the Ministry of Youth and Sports, DEMP, and UNICEF. When there is cooperation between institutions in line with the expert opinion in providing both physical, psychological, or educational support, it is thought that it will contribute to a more equitable distribution of the aid to be provided. The following can be suggested for local and ministry-level studies on this issue.

1. It is important to plan for the participants' physical needs, material support, transportation, and cooperation in a systematic way.

2. Considering the secondary traumatic stress levels of the participants, it is thought that it would be more functional to work in the disaster area at short intervals.

3. It is thought that volunteers may need to be "adequately informed" about the secondary traumatic stress reactions they may experience. In this regard, it may be suggested that the "support to the employee" materials prepared by MoNE be examined.

4. Although PFA activities do not require direct expertise, it may be recommended that volunteers receive in-service training or orientation training on trauma, disaster psychology, and understanding posttraumatic reactions.

References

Adams, R. E., Figley, C. R. & Boscarino, J. A. (2008). The compassion fatigue scale is used by social workers following urban disasters. *Research on Social Work Practice, 18(3),* 238–250. https://doi.org/10.1177/1049731507310190

Agaibi, C. E., & Wilson, J. P. (2005). Trauma, PTSD, and resilience: A review of the literature. *Trauma, Violence, & Abuse, 6*(3), 195-216. https://doi.org/10.1177/1524838005277438

Aker, T. (2012). Temel sağlık hizmetlerinde ruhsal travmaya yaklaşım. *Türkiye Psikiyatri Derneği Yayınları.*

Aktaş, A. (2003). Kriz durumlarında sosyal hizmet müdahalesi. *Kriz Dergisi, 11*(3), 37- 44. https://dergipark.org.tr/en/download/article-file/595602

Aldao, A., & Nolen-Hoeksema, S. (2012). The influence of context on the implementation of adaptive emotion regulation strategies. *Behaviour research and therapy, 50*(7-8), 493-501. https://doi.org/10.1016/j.brat.2012.04.004

Altun, F. (2018). Afetlerin ekonomik ve sosyal etkileri: Türkiye örneği üzerinden bir değerlendirme. *Sosyal Çalışma Dergisi, 2*(1), 1-15. https://dergipark.org.tr/en/download/article-file/496607

Arasan Özbay, Z. (2015). *Afet müdahale ekipleri için psikososyal beceri kazanımı programının hazırlanması ve etkililiğinin incelenmesi*. Yayınlanmamış yüksek lisans tezi, Fatih üniversitesi, İstanbul.

Arıca, F., Çakır, C., ve Kağnıcı, D. (2023). Kırılgan gruplar özelinde afetlerde psikososyal hizmetler. *Afet ve Risk Dergisi, 6*(1), 176-187. https://doi.org/10.35341/afet.1173165

Arslan Tomas, S., ve Şavur, E. (2018). *Afet ve acil durumlarda psikososyal destek hizmetleri saha çalışanları için el kitabı.* Ankara, UNICEF Türkiye Temsilciliği.

Arslankoç, S., Doruk, Ç. S., ve Koçak, O. (2024). Deprem bölgesindeki psiko-sosyal hizmetlerin değerlendirilmesi. *Afet ve Risk Dergisi, 7*(1), 108-127. https://doi.org/10.35341/afet.1306045

ASP (2024). *Afet ve acil durumlarda psikososyal destek hizmetleri saha çalışanları için el rehberi.* https://avys.omu.edu.tr/storage/app/public/bilge.abukan/138610/afetlerde%20psikososyal%20hizmetler.pdf adresinden erişildi.

Azzollini S., Depaula P.D., Cosentino A.C. & Bail Pupko V. (2018). Applications of psychological first aid in disaster and emergencies: its relationship with decision making. *Athens Journal of Social Sciences, 5*(2), 201-213. https://doi.org/10.30958/ajss.5-2-5

Basim, H. N., & Cetin, F. (2011). The reliability and validity of the Resilience Scale for Adults-Turkish Version. *Türk Psikiyatri Dergisi, 22*(2), 1-9. Retrieved from www.turkpsikiyatri.com

Bayhan, Ö., Şentürk, Ş., & Kinsiz, D. N. (2023). Views of psychological counselors ınvolved in post-earthquake psychosocial support activities regarding the support process. *Sakarya University Journal of Education, 13*(4), 610-630. https://doi.org/10.19126/suje.1374488

Betts Adams, K., Matto, H. C. ve Harrington, D. (2001). The traumatic stress ınstitute belief scale as a measure of vicarious trauma in a national sample of clinical social workers. *Families in Society: The Journal of Contemporary Human Services, 82*(4), 363-371. Bildiri; IESKO 2019. Kocaeli ve Düzce Depremleri 20. Yıl Özel Sempozyumu.

Bitmiş, G., M., Sökmen, A., ve Turgut, H. (2013). Psikolojik dayanıklılığın tükenmişlik üzerine etkisi: örgütsel özdeşleşmenin aracılık rolü. *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 15*(2), 27-40. https://dergipark.org.tr/en/download/article-file/287251

Bogdan, R. C. And Biklen, S. K. (1992). Qualitative research for education (3rd ed.). In *foundations of qualitative education research* (p. 1-48). Boston: Allynand Bacon.

Brymer, M., Jacobs, A., Layne, C., Pynoos, R., Ruzek, J.,... Watson, P. (2006). Psychological first aid: Field operations guide (2nd Edition). Retrieved from www.nctsn.org

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö.E., Karadeniz, Ş. ve Demirel, F. (2015). *Bilimsel araştırma yöntemleri* (17. Baskı). Ankara: Pegem Yayınları.

Campbell-Sills L, Cohan SL, Stein MB. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Researchand Therapy,* 4(44): 585–599. https://doi.org/10.1016/j.brat.2005.05.001

Cansel, N., & Ucuz, İ. (2022). Post-traumatic stress and associated factors among health care workers in the early stage following the 2020 Malatya-Elâzığ earthquake. *Konuralp Medical Journal, 14*(1), 81-91. doi.org/10.18521/ktd.1000636

Carlier, I. V., Lamberts, R. D., & Gersons, B. P. (1997). Risk factors for posttraumatic stress symptomatology in police officers: A prospective analysis. *The Journal of nervous and mental disease*, *185*(8), 498-506. Retrieved from journals.lww.com

Chang, K., & Taormina, R. J. (2011). Reduced secondary trauma among Chinese earthquake rescuers: A test of correlates and life indicators. *Journal of Loss and Trauma*, *16*(6), 542-562. doi.org/10.1080/15325024.2011.600682.

Chrestman, K.R. (1999). Secondary exposure to trauma and self-reported distress among. https://www.ptsd.va.gov/professional/articles/article-pdf/id13404.pdf adresinden erişildi.

Creswell, J. W. (2021). Nitel araştırma yöntemleri: *Beş yaklaşıma göre nitel araştırma ve araştırma deseni*. (Çev: S.B. Demir ve M. Bütün (Edt.). Siyasal Kitabevi.

Christensen, L. B., Johnson, B., & Turner, L. A. (2014). *Research Methods, Design, and Analysis* (12th Ed). Pearson Publication. books.google.com.tr/ Retrieved online from on 30.05.2024.

Cox, R. S., Scannell, L., Heykoop, C., Tobin-Gurley, J., &Peek, L. (2017). Understanding youth disaster recovery: The vital role of people, places, and activities. International journal of disaster risk reduction, 22, 249-256. doi.org/10.1016/j.ijdrr.2017.03.011

Çoban, H. (2019). Afet sonrası iyileştirme planı hazırlanması. *Dirençlilik Dergisi Resilience, 3*(2), 239-246. Doi:10.32569/resilience.618181

Çoban, H. (2020). *Afet çalışanlarında psikolojik dayanıklılık ve stresle başa çıkma düzeyi.* Yayınlanmamış yüksek lisans tezi, Bezmiâlem vakıf üniversitesi, İstanbul.

DEMP (Disaster and Emergency Management Presidency) (2024). *Afet ve Acil Durum Yönetimi Başkanlığı.* https://www.afad.gov.tr/kurumlar/afad.gov.tr/39509/xfiles/psikososyal_-_10x21.pdf Retrieved from on 02.04.2024.

Demircioğlu, M., Şeker, Z., & Aker, A. T. (2019). Psikolojik ilk yardım: amaçları, uygulanışı, hassas gruplar ve uyulması gereken etik kurallar. *Psikiyatride Güncel Yaklaşımlar, 11*(3), 351-362. doi.org/10.18863/pgy.456301

Devilly, G.J., Wright, R. ve Varker, T. (2009). Vicarious trauma, secondary traumatic stressor, simply burnout? Effect of trauma therapy on mental health professionals. *Australian and New Zealand Journal of Psychiatry, 43*, 373-385. doi.org/10.1080/000486709027210

Doğan, T. (2017). Yardım edenlere yardım: Yardım edenlerde stres tepkileri ve iyilik halinin korunması. (Ed. Erdur Baker, Ö. ve Doğan, T.) *Afetler, krizler travmalar ve psikolojik yardım orta yetişkinlikte stres, başa çıkma ve psikolojik sağlamlık içinde* (s. 9-19.). Türk PDR Derneği Yayınları: Ankara.

Drayer, C. S., Cameron, D. C., Woodward, W. D. ve Glass, A. J. (1954). Psychological first aid in community disaster. *Journal of the American Medical Association, 156*(1), 36-41. safetylit.org Retrieved online from on 21.05.2024.

Dünya Sağlık Örgütü (2011). Gender and health in natural disasters. World Health Organization.

Erdener, M. (2019). *Afet alanında çalışan profesyonellerin psikolojik dayanıklılık ve ikincil travmatik stres düzeylerinin incelenmesi.* Yayımlanmamış yüksek lisans tezi, Hacettepe üniversitesi, Ankara.

Ertuğrul, F. (2022). *Afetlerde görevli ruh sağlığı çalışanlarının deneyimlerinin psikolojik dayanıklılık bakış açısıyla incelenmesi.* Yayımlanmamış yüksek lisans tezi. Başkent Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Everly, Jr, G. S. ve Lasting, J. M. (2017). The Johns Hopkins guide to psychological first aid. John Hopkins University Press. books.google.com.tr/ Retrieved online from 290.05.2024.

Feyerabend, P. (2020). *Bilgi üzerine üç söyleşi*. (Çev. Güzel, C., Kavas, L.) Metis Yayınları, İstanbul.

Fidan, T. ve Öztürk, İ. (2015). Perspectives and expectations of union member and non-union member teachers on teacher unions. *Eğitim Bilimleri Araştırmaları Dergisi-Jurnal of Educational Sciences Research, 5*(2), 191-220. www.researchgate.net

Figley, C.R. (2002). Compassion Fatigue. Psychoterapists' Choronic Lack of Self Care, JCLP/In Session: *Psychotherapy in Partice, 58*(11),1433-1441. books.google.com.tr/ Retrieved online from on 30.05.2024.

Fincham, F. D., & May, R. W. (2021). Divine forgiveness protects against psychological distress following a natural disaster attributed to God. *The Journal of Positive Psychology, 16*(1), 20-26. doi.org/10.1080/17439760.2019.1689411

Fraenkel, A., Hyun, H. And Wallen, N. (2012). How to design and evaluate research in education. (8th Edition). New York: Mc. GrawHill. books.google.com.tr/ Retrieved online from on 08.05.2024.

Friborg O, Barlaug D, Martinussen (2005) Resilience about personality and intelligence. *International Journal of Methods in Psychiatric Research,* (14), 29–42. doi.org/10.1002/mpr.15

Ganellen, R. J., & Blaney, P. H. (1984). Hardiness and social support as moderators of the effects of life stress. *Journal of Personality and Social Psychology*, *47*(1), 156. doi.org/10.1037/0022-3514.47.1.156

Garmezy, N. G. (1991). Resiliency and vulnerability toad versus developmental outcome associated with poverty. American Behavioral Scientist, 34,4-, 416- 430. doi.org/10.1177/0002764291034004003

Gençtan, E. (2017). *İnsan Olmak*. (26. Basım, Ocak 2023). İstanbul: Metis Yayınları.

Gizir, C. A. (2007) Psikolojik sağlamlık, risk faktörleri ve koruyucu faktörler üzerinde bir derleme çalışması. *Türk Psikolojik Danışma ve Rehberlik Dergisi, 3*(28), 113- 128. https://dergipark.org.tr/en/download/article-file/200204 Retrieved online from 15.05.2024.

Gülyol, Y. (2024). Deprem kaynaklı ikincil travmatik strese genel bir bakış. *Habitus Toplumbilim Dergisi*, *5*(5), 37-60. doi.org/10.62156/habitus.1412564

Haksal, P. (2007). *Acil servis personelinde görülen ikincil travmatik stres düzeyinin disosiyasyon düzeyi, sosyal destek algısı ve başa çıkma stratejileri açısından incelenmesi*. Yayınlanmamış yüksek lisans tezi, Hacettepe üniversitesi, Ankara.

Hasdemir, D. (2018). *Effects of refugee trauma on interpreters: a qualitative analysis of vicarious traumatization and coping*. Unpublished master's thesis, Hacettepe University, Ankara.

Hatch, J. A. (2023). *Doing qualitative research in education settings*. Second Edition. State university of New York press: Albany, USA. books.google.com.tr/ Retrieved online from on 11.06.2024.

Heidegger, M. (2021). *Varlık ve zaman*. (Çev. Ökten, K.H.) Alfa yayıncılık, İstanbul.

Hesse, A. R. (2002). Secondary trauma: How working with trauma survivors affects therapist. *Clinical Social Work Journal, 30*(3), 293-309. Retrieved https://link.springer.com/article

Housley, J. ve Beutler, L. E. (2007). Treating victims of mass disaster and terrorism (Vol. 6). Hogrefe Publishing GmbH. books.google.com.tr/ Retrieved online from 11.07.2024.

Husserl, E. and Tepe, H. (2012). *Fenomenoloji Üzerine Beş Ders.* (Giriş ve Çev.H. Tepe). Ankara: Bilge Su Yayıncılık.

İnce, A., Temiz, Y. E., & Erdinç, Z. (2023). 6 Şubat Kahramanmaraş depremlerinde din hizmetleri: Manevi danışmanlık ve rehberlik bağlamında bir saha araştırması. *Eskiyeni,* (50), 683-704. doi.org/10.37697/eskiyeni.1286299

Jackson CS. (1997). The trait and process of resilience. *Journal of Advanced Nursing,* (25), 123–129. doi.org/10.1046/j.1365-2648.1997.1997025123.x

Kahil, A. (2016). *Travmatik yaşantıları olan bireylere yardım davranışında bulunan profesyonel ve gönüllülerin ikincil travmatik stres düzeylerinin incelenmesi*. Yayımlanmamış yüksek lisans tezi, Ufuk üniversitesi, Ankara.

Karaırmak, Ö. (2006). Psikolojik sağlamlık, risk faktörleri ve koruyucu faktörler. *Turkish Psychological Counseling and Guidance Journal, 3*(26), 129-142. https://dergipark.org.tr adresinden erişildi.

Kaya, N. (2015). *Sağlık çalışanlarında ruhsal travma belirtilerinin incelenmesi (Van depremi örneği)*. Yayımlanmamış yüksek lisans tezi, Yüzüncü Yıl üniversitesi, Van.

Kayacı, Ü. ve Özbay, Y. (2016). Üniversite öğrencilerinin travmatik yaşantı, psikolojik doğum sıraları ve sosyal ilgilerinin psikolojik dayanıklılıklarını yordaması. *The Journal of Happiness & Well-Being, 4*(1), 128-142.

Kılıç, N. ve Şimşek, N. (2018). Psikolojik ilk yardım ve hemşirelik. *Psikiyatri Hemşireliği Dergisi, 9*(3), 212-218. Doi: 10.14744/phd.2017.76376

Koenen KC, Stellman JM, Stellman SD, Sommer JFJ (2003) Risk factors for course of post-traumatic stress disorder among Vietnam veterans: a 14-year follow-up of American Legionnaires. *Journal of Consulting and Clinical Psychology, (71*), 980–986. Retrieved online summary was taken from. https://psycnet.apa.org/buy/2003-09784-003

Kuhn, Thomas S. (2021) *Bilimsel devrimlerin yapısı*. (çev. Kuyaş, N.) 4. Basım, Kırmızı Yayınları. İstanbul.

Kurtul, K. (2014). Acil durumlarda çocuk koruma eğitimi katılımcı el kitabı. Ankara: UNICEF Türkiye Temsilciliği. https://www.unicef.org Retrieved online from 11.07.2024.

IASC [Kuruluşlar Arası Daimî Komite], (2017). *Acil Durumlarda Ruh Sağlığı ve Psikososyal Destek Kılavuzu*. (Editör: Kurtul, K. Basım: Ankara), Cenevre. interagencystandingcommittee.org/ adresinden erişildi.

Kuş, E. (2009). *Nicel-Nitel Araştırma Teknikleri*. (3. Baskı). Ankara: Anı Yayınları.

Kümbetoğlu, B. (2005). *Sosyoloji ve antropolojide niteliksel yöntem ve araştırma*. İstanbul: Bağlam Yayıncılık.

Lacan, J. (2022). Freud'un Teorisinde ve Psikanalizin Tekniğinde Ben, Seminer 2. Kitap (S. Kılıç, Çev.) Metis. (1954-1955)

Lakatos, Imre (2014). *Bilimsel araştırma programlarının metodolojisi*. (Çev. Duygu Uygun, D.). Alfa Yayınları. İstanbul

Luthar, S. S., Cicchetti, D., ve Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. Child Development, 71(3), 543–562. doi.org/10.1111/1467-8624.00164

MEB ve UNICEF (2001). Millî Eğitim Bakanlığı ve United Nations International Children's Emergency Found. *Millî Eğitim Bakanlığı/UNICEF Psikososyal Okul Projesi Travma Sonrası Normal Tepkiler Psikoeğitim El Kitabı*. (2. Bsk, MEB/ UNICEF Psikososyal Okul Projesi): Türkiye. https://orgm.meb.gov.tr/psikososyaldijitaldestek/pdf/psikososyalonleyicikitab.pdf Retrieved online from on 11.07.2024.

MEB (2024). *Psikososyal destek hizmetleri, psikososyal destek dokümanları*. https://orgm.meb.gov.tr/www/psikososyal-destek-dokumanlari-sayfa-1/icerik/1314 adresinden Retrieved online from on 07.07.2024.

Merriam, S. B. (2013). *Nitel Araştırma Desen ve Uygulama İçin Bir Rehber*. (Çev. Selahattin T.). Ankara: Nobel Yayınevi.

Mesidor, J. K., & Sly, K. F. (2019). Religious coping, general coping strategies, perceived social support, PTSD symptoms, resilience, and post-traumatic growth among survivors of the 2010 earthquake in Haiti. *Mental Health, Religion & Culture, 22*(2), 130-143. doi.org/10.1080/13674676.2019.1580254

Miles, M. B. & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. Thousand Oaks: CA: Sage. books.google.com.tr/ Retrieved online from on 11.06.2024.

Olsson, C. A., Bond, L., Burns, J. M., Vella-Brodrick, D. A., & Sawyer, S. M. (2003). Adolescent resilience: A concept analysis. *Journal of Adolescence*, *26*(1), 1-11. doi.org/10.1016/S0140-1971(02)00118-5

Özen, H. ve Cerit, C. (2018). Savaş nedeniyle Türkiye'ye göç ederek insani yardım kuruluşunda çalışan Suriyeli mültecilerde travma sonrası stres bozukluğu ve ilişkili etmenler. *Kocaeli Üniversitesi Sağlık Bilimleri Dergisi, 4*(3), 70-73. doi.org/10.30934/kusbed.431796

Pak, M. D., Özcan, E. ve Çoban, A. İ. (2017). Acil servis çalışanlarının ikincil travmatik stres düzeyi ve psikolojik dayanıklılığı. *Uluslararası Sosyal Araştırmalar Dergisi, 10*(52), 628-644. http://dx.doi.org/10.17719/jisr.2017.1923

Patton, M. Q. (2014). *Nitel araştırma ve değerlendirme yöntemleri*. (M. Bütün, S. B. Demir, Çev.Ed). Ankara: Pegem.

Polemikou, A. (2021). *Disaster-ınduced Psychological Trauma: Supporting Survivors and Responders. In Emergency Medicine, Trauma and Disaster Management: From Prehospital to Hospital Careand Beyond* (pp. 545-554). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-34116-9_42

Robinson-Keilig, R. A. (2013). Secondary traumatic stress and disruptions to interpersonal functioning among mental health therapists. *Journal of Interpersonal Violence, 29*(8), 1477– 1496. https://doi.org/10.1177/0886260513507135

Rolfe, G. (2016). Validity, Trustworthiness and Rigour: Quality and the idea Of Qualitative Research. Journal of Advanced Nursing, 53(3), 304-310. doi.org/10.1111/j.1365-2648.2006.03727.x

Rossman, G. B. and Rallis, S. F. (2012). *Learning in The Field: An İntroduction to Qualitative Research*. (3rd ed.). Thousand Oak: CA: Sage. books.google.com.tr/ Retrieved online from on 30.05.2024.

Rubin, A. And Babbie, E. R. (2016). *Empowerment Series: Research Methods For Social Work*. Boston: Cengage Learning. books.google.com.tr/ Retrieved online from on 30.05.2024.

Ruzek, J. I., Brymer, M. J., Jacobs, A. K., Layne, C. M., Vernberg, E. M., & Watson, P. J. (2007). Psychological first aid. *Journal of Mental Health Counseling, 29*(1), 17-49. https://doi.org/10.17744/mehc.29.1.5racqxjueafabgwp

Saldana, J. (2019). *Nitel Araştırmacılar İçin Kodlama El Kitabı. A. Tüfekci Akcan ve S., N. Şad (Çev. Ed). Ankara: Pegem Akademi Yayıncılık*.

Scheibe, S., & Carstensen, L. L. (2010). Emotional aging: Recent findings and future trends. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 65*(2), 135-144. doi.org/10.1093/geronb/gbp132

Schram, T. H. (2003). *Conceptualizing Qualitative Inquiry*. Upper Saddle River: NJ: Prentice Hail. books.google.com.tr/ adresinden 02.04.2024 tarihinde çevrimiçi alınmıştır.

Southwick, S. M., ve Charney, D. S. (2023). *Psikolojik Dayanıklılık. Hayattaki Büyük Zorluklarla Başa Çıkma Sanatı.* (3. Bsk, Çev. Ed. Siber, B.) İletişim Yayınları: İstanbul.

Skovholt, T. M. (2012). Becoming a therapist: On the path to mastery. John Wiley & Sons INC. New Jersey, Published in Canada. https://books.google.com.tr/ Retrieved online from 27.05.2024.

Şahin, S. (2021). *Psikososyal müdahale çalışanlarının afetlere karşı bireysel hazırlık düzeylerinin değerlendirilmesi*. Yayınlanmamış, doktora tezi. Kocaeli üniversitesi, Kocaeli.

Terzi, Ş. (2008). Üniversite öğrencilerinin psikolojik dayanıklılıkları ve algıladıkları sosyal destek arasındaki ilişki. *Türk Psikolojik Danışma ve Rehberlik Dergisi, 3*(29), 1-9. https://dergipark.org.tr/en/download/article-file/200202 Retrieved online from 26.05.2024.

Therapists. B.H. Stamm (Ed.). Secondary traumatic stress: self-care issues for clinicians, researchers, & educators (p. 29-36). Lutherville, MD: SidranPress. doi.org/10.1080/10911359.2018.1472703

Tominaga, Y., Goto, T., Shelby, J., Oshio, A., Nishi, D., & Takahashi, S. (2020). Secondary trauma and post-traumatic growth among mental health clinicians involved in disaster relief activities following the 2011 Tohoku earthquake and tsunami in Japan. *Counselling Psychology Quarterly*, *33*(4), 427-447. doi.org/10.1080/09515070.2019.1639493

Trip, H., Tabakakis, K., Maskill, V., Richardson, S., Dolan, B., Josland, H., ... & Houston, G. (2018). Psychological health and resilience: the impact of significant earthquake events on tertiary level professional students. A cross-sectional study. *Contemporary nurse*, *54*(3), 319-332. doi.org/10.1080/10376178.2018.1503549

Turgut, İ. (2014). *Travma mağduru ve sığınmacılarla çalışan meslek elemanlarının ruhsal sorunları üzerine karşılaştırma gruplu bir değerlendirme çalışması*. Yayımlanmamış yüksek lisans tezi, Haliç üniversitesi, İstanbul.

Turner SW, Bowie C, Dunn G, Shapo L ve Yule W. (2003) Mental health of Kosovan Albanian refugees in the UK. *British Journal of Psychiatry,* (182), 444–448. doi.org/10.1192/bjp.182.5.444

TÜRK Kızılayı. (2008). Afetlerde psikososyal destek uygulama rehberi. www.kizilay.org.tr adresinden 07.07.2024 tarihinde çevrimiçi olarak alınmıştır.

Vollhardt, J. R. (2009). Altruism born of suffering and prosocial behavior following adverse life events: A review and conceptualization. *Social Justice Research*, *22*, 53-97.

World Health Organization (WHO, 2024), War Trauma Foundation, and World Vision International (Press, 2011). Psychological first aid: A guide for field workers. https://www.who.int/ adresinden erişildi.

Yıldırım, A., ve Şimşek, H. (2018). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri*. (11. Baskı). Ankara: Seçkin Yayıncılık.

Yıldırım, E., İskender, G. (2021) *Akut Dönemde Ruhsal Yaklaşımlar. Kitlesel Travmalar ve Afetlerde Ruhsal Hastalıkları Önleme, Müdahale ve Sağaltım Kılavuzu*. Yüksel, Ş. ve Başterzi, A. D. (Ed), Ankara: Türkiye Psikiyatri Derneği Yayınları.

Yıldız, M. İ., Başterzi, A. D., Yıldırım, E. A., Yüksel, Ş., Aker, A. T., Semerci, B. ve Hacıoğlu Yıldırım, M. (2023). Deprem sonrası erken dönemde koruyucu ve tedavi edici ruh sağlığı hizmeti-türkiye psikiyatri derneği uzman görüşü. *Turkish Journal of Psychiatry, 34*(1). doi.org/10.5080/u27305

Zakour, M. J., &Harrell, E. B. (2003). Access to disaster services: Social work interventions for vulnerable populations. *Journal of Social Service Research, 30*(2), 27-54. doi.org/10.1300/J079v30n02_03

Zhang, H., Hook, J. N., Van Tongeren, D. R., Davis, D. E., McElroy-Heltzel, S. E., Davis, E. B., &Aten, J. D. (2022). The role of spiritual fortitude in meaning and mental health symptoms following a natural disaster. *Psychology of Religion and Spirituality, 14*(3), 406. doi.org/10.1037/rel0000420

Genişletilmiş Türkçe Özet

Türkiye coğrafi ve jeolojik yapısı gereği ekolojinin getirmiş olduğu doğal afetlere açık bir yapıya sahiptir. Doğal afetler sonrasında insanların günlük yaşam koşullarını sarsılabilmekte, ekonomik, sosyolojik ve fiziksel zararları azaltmak adına dışardan psikolojik, ekonomik ya da sosyal desteğe ihtiyaç duymaktadırlar. Afetler sonrasında bireylerin duygusal dünyaları zarar görmekte, karşılaşılan en temel psikolojik sorunlar arasında duygusal dengenin bozulması, belirsizlik, kaygı, anda olamama şeklindedir. Tüm bunlar afet sonrasında psikolojik anlamda yardımın nasıl sağlanacağı ve hangi uzmanların görevlendirilmesi gerektiği sorusunu akla getirmektedir. Psikolojik destek anlamında ise ilk olarak psikolojik ilk yardım (PİY) yapılmaktadır. Bunun sebebi ise psikolojik ilk yardımın afet mağdurunun yaşadığı duygusal olaylara karşı duygusal temas ihtiyacından kaynaklanmaktadır. Nitekim psikolojik ilk yardımda ana hedefler: dinlemek, izleme ve bağ kurmaktır. Psikolojik ilk yardımda sunulan duygusal destekle birlikte kişi travmatik olay karşısında yalnız olmadığını hissetmektedir. Daha sonra ise psikososyal destek (PSD) hizmetleri sunulmaktadır. Psikososyal destekler, psikolojik ilk yardımın daha sistematik ve programlı hali şeklinde değerlendirilebilir. Gerek psikolojik ilk yardım olsun gerekse psikososyal destek sunulurken bu alanda çalışan psikolojik danışman, psikolog, sosyal destek uzmanlarına ihtiyaç duyulmaktadır.

Psikososyal destek sunulurken ihtiyaç ve kaynakların değerlendirilir. Koordinasyon ve iş birliği, sevk etme ve yönlendirme, bilgi merkezi oluşturma, toplumu harekete geçirme, sosyal projeler, eğitimler, çalışana destek, izleme ve değerlendirmedir. Çalışana destek kısmı incelendiğinde afetlerde görev yapan personelin duygusal, davranışsal, zihinsel ve fiziksel olarak etkilenme düzeylerini azaltarak iş ve yaşam motivasyonlarını artırma hedeflenmektedir. Bunun temel amacı psikososyal destek hizmeti sunulurken uzmanın yaşadığı bazıikincil travma ya da mağdurdan psikolojik ve duygusal olarak etkilenme ihtimalinin olmasıdır. Psikososyal destek sunulurken ruh sağlığı çalışanları çeşitli bakanlıklarda [Milli Eğitim Bakanlığı (MEB), Aile ve Sosyal Politikalar Bakanlığı (ASP), Afet ve Acil Durum (AFAD)] Afetlerde psikososyal destek ve psikolojik ilk yardım kısmında çalışan görevli meslek elemanlarından bazıları da psikolojik danışmanlardır. Psikolojik danışmanlar asrın felaketi sayılan 6 Şubat Kahramanmaraş Merkezli depremde PİY ve PSD çalışmalarında bulunmuşlardır (Millî Eğitim Bakanlığı/Özel Eğitim ve Rehberlik Genel Müdürlüğü [MEB/ORGM], 2024). Bu bölgelerde çalışan alan uzmanlarının PİY deneyimleri, duygu durumları, deprem bölgesinde yaptıkları çalışmalar, travmatik stres düzeyleri ve bunu tolere etmek adına psikolojik dayanıklılıklarını nasıl düzenledikleri, motivasyon kaynakları incelenmesi gereken konular arasında yer almaktadır.

Bu araştırmanın amacı psikolojik danışmanların deprem bölgesine gitme motivasyonları, orada yaptıkları çalışmalar ve bunlara ilişkin duyguları, psikolojik dayanıklılığı sağlama yolları ile bu konudaki önerilerini incelemektir. Araştırmada PİY ve PSD hizmeti sunan 14 psikolojik danışman yer almıştır. Verilerin toplanmasında yarı yapılandırılmış görüşme yöntemi, verilerin analizinde ise içerik analizi kullanılmıştır. PİY ve PSD hizmetlerine katılan psikolojik danışmanların afet bölgesine gitme ve orada çalışmaya ilişkin motivasyonları incelendiğinde bireysel motivasyon, mesleki motivasyon kaynakları

olmak üzere iki farklı temanın ortaya çıktığı görülmüştür. Psikolojik danışmanların afet bölgesinde sanatsal etkinlikler, PİY ve PSD çalışmaları yaptıklarını rapor etmişlerdir. Psikolojik danışmanlar, deprem bölgesinde duygusal, bilişsel ve fiziksel aktiviteler yaparak psikolojik dayanıklılıklarını korumaya çalıştıklarını ifade etmişlerdir. Psikolojik danışmanlar, afet bölgesinde görev yapacak olan alan uzmanlarının psikolojik dayanıklılıklarını korumak adına psikososyal destek ekibinden beklentiler, kişisel başa çıkma kaynakları, bilişsel ve duygusal hazır bulunuşluk ve fiziksel sağlığı koruma gibi faktörlerin önemine vurgu yapmışlardır. Katılımcılar, deprem bölgesinde yaşadıkları deneyimlere ilişkin duygularını hoş duygular ve nahoş duygular şeklinde sınıflamışlardır. Bu çalışma, afet bölgelerinde gerçekleştirilen faaliyetler, kişisel özellikler, sosyal/çevresel etkileşimler, koruma ve iyileştirme talepleri dahil olmak üzere, afetlerin doğasını ele almak için tasarlanabilecek sosyal refah müdahaleleri ve politikalarına bilgi verebilecek bulgular ortaya koymaktadır. Afet durumlarında zihinsel gücün korunmasına yönelik stratejiler; öz bakımın sürdürülmesi, kritik baş etme becerilerine sahip olunması, gerektiğinde profesyonel psikolojik destek veya süpervizyon alınması ve yüksek düzeyde motivasyon ve iş birliğinin sağlanması, mesleki sınırların korunması ve sürekliliğin sağlanmasıdır.

Ortaya çıkan sonuçlara göre deprem bölgesinde gönüllü hizmet ruh sağlığı çalışanlarına "psikoeğitim/kendine yardım grupları/paylaşım grupları" şeklinde içerikler hazırlanıp bunlar yarı deneysel araştırmalarla sınanabilir. İçeriklerin hazırlanması ve gruplara uygulanması bir anlamda sahadaki deneyimlerle, teorideki uygulamalar arasındaki farkın birincil derecede görünmesine de katkı sağlayacağı düşünülmektedir. Afetlerde görev yapan uzmanların psikolojik dayanıklılığını, şefkat yorgunluğunu, duygu durumlarını düzenlemek adına fiziksel sağlık, öz bakım, sosyal ilişkiler kurmanın önemli olduğu görülmüştür. Birçok ruh sağlığı uzmanı afet bölgesine gitmeden önce oryantasyon programlarına katılmanın öneminden bahsetmiştir. Bilgilendirme olması durumunda mağdurla temas ederken ya da uzmanın kendisi zorlandığında neler yapabileceği konusunda farkındalık kazancaktır. Araştırmacılar olarak PİY ve PSD çalışmalarında gönüllü olarak görev yaptığımız süreçte, meslektaşlar arası paylaşımın önemli olduğunu birincil kaynaktan gözlemleme şansına sahip olduk. Afet bölgesinde psikolojik danışmanlık, klinik bir yönlendirme ya da psikoterapiden ziyade ilk temasın çok önemli olduğu bununda psikolojik ilk yardımda yer alan dinle-izle-bağ kur ile birebir ilişkili olduğunu göstermektedir. İnsan doğası gereği zorlayıcı bir yaşam karşısında ilk anda kendisini dinleyen, anlayan ve onun acısını paylaşmaya gönüllü bir kişinin olmasının önemini sadece literatürle sınırlı olmadığını bunun pratikte de önemli bir destekleyici unsur olduğunu söyleyebiliriz. Özetle teori ve pratik bu konuda birbirini desteklemiştir.

MEB, Aile Sosyal Politikalar Bakanlığı, Gençlik Spor Bakanlığı, AFAD, UNICEF gibi kuruluşlardan birçok gönüllü uzmanın olduğu süreçte koordinasyonun önemli olduğunu vurgulamamız gerektiğini düşünmekteyiz. Gerek fiziksel gerekse psikolojik ya da eğitsel destek sunmada uzman görüşü doğrultusunda kurumlar arası iş birliği olduğunda sunulacak yardımların daha adil dağıtılmasına katkı sunacağı düşünülmektedir. Bu konuyla ilgili yerel ve bakanlık düzeyinde yapılacak çalışmalar için şunlar önerilebilir.

1. Katılımcıların fiziksel ihtiyaçları, materyal desteği, ulaşım ve iş birliği için sistematik bir planlamanın önemli olduğu görülmüştür.
2. Katılımcıların ikincil travmatik stres düzeyleri göz önüne alındığında afet bölgesinde çalışma sürelerinin kısa aralıklarla yapılmasının daha işlevsel olacağı düşünülmektedir.
3. Gönüllülerin yaşayabilecekleri ikincil travmatik stres tepkileri ile ilgili "yeterince bilgilendirilmeye" ihtiyaç duyabilecekleri düşünülmektedir. Bununla ilgili MEB'in hazırlamış olduğu "çalışana destek" materyallerinin incelenmesi önerilebilir.
4. Her ne kadar PİY çalışmaları direkt bir uzmanlık gerektirmese de gönüllülerin travma, afet psikolojisi, travma sonrası tepkileri anlama ile ilgili hizmet içi eğitim ya da oryantasyon eğitimi almaları önerilebilir.

Ethics Committee Approval: …

Informed Consent: Informed consent was obtained from the 14 (number) of participants.

Peer Review:

Authors' Contribution: All authors have contributed relatively to the research.

Conflict of Interests: The authors declare no conflict of interest.

Financial Disclosure: The authors declared that this research was conducted without financial support.

Acknowledgement: We would like to thank the Provincial Psychosocial Support Coordination Unit for helping us reach the sample group for this study.

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Journal of Qualitative Research in Education
Eğitimde Nitel Araştırmalar Dergisi

Decoding Teachers' Dilemma: Unveiling the Real Obstacles to Implementing Formative Assessment in the Classroom

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To cite this article:

Özer Özkan, Y., Özkan, M. (2025) Decoding Teachers' Dilemma: Unveiling the Real Obstacles to Implementing Formative Assessment in the Classroom. *Journal of Qualitative Research in Education*, 95-118. Doi: 10.14689/enad.41.2062

Abstract

This study aims to explore the barriers that prevent teachers from frequently and effectively using formative assessment approaches in classroom practices. The study employs a phenomenological design, as it seeks to reveal the current state of formative assessment practices in classrooms based on teachers' experiences and perspectives. The group consists of 24 teachers selected through purposive sampling. Data were collected through semi-structured interview forms. Thematic analysis was employed to analyze the qualitative data. The findings indicate that teachers use formative assessments to monitor student progress, improve the instructional process, provide feedback, and identify learning deficiencies. However, factors such as large class sizes, time constraints, an overloaded curriculum, student diversity, outcome-oriented educational programs, and lack of technological infrastructure hinder the effective use of formative assessment.While some of the challenges are organizational, teachers can overcome these barriers through individual efforts such as conducting research, utilizing educational technologies, attending in-service training, and continuously updating their knowledge. Given the various challenges and contextual differences in implementing formative assessment, along with the necessity for practice-oriented teacher training, school-based professional development programs on formative assessment are strongly recommended.

Keywords: Formative assessment, assessment for learning, assessment policy, teacher professional development

About the Article

Submitted Date: Nov. 19, 2024

Revised Date: Jan. 22, 2025

Accepted Date: Jan. 23, 2025

Article Type:

Review

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Introduction

Assessment is a process that facilitates student learning and improves teaching. In the context of education, a wide range of assessment practices may come to mind. In recent years, classroom-based approaches focused on the essence of learning have gained prominence. McMillan (2015) classified classroom assessments into three subcategories: Assessment of Learning, Assessment as Learning, and Assessment for Learning. Of these, assessment of learning, also known as summative assessment, is conducted at the end of units, terms, or school years to determine whether students have achieved curriculum outcomes. Assessment as learning emphasises the active role of students in monitoring their learning, using self-assessment and reflection to develop metacognitive skills and take greater responsibility for their progress. Assessment for learning, on the other hand, is grounded in theories of metacognition, motivation, and self-regulation and encompasses strategies such as sharing learning intentions and success criteria with learners, providing detailed feedback on their performance, enabling them to monitor their progress continuously, and promoting self- and peer-assessment (Lysaght et al., 2019). Formative assessment is a process conducted regularly or daily by teachers to gather data aimed at improving learning, encompassing both assessment as learning and assessment for learning approaches (Oo et al., 2022). Formative assessment is a significant evaluative approach that enhances learning in educational environments at all levels. As defined by Black and Wiliam (1998a), formative assessment encompasses all activities undertaken by teachers and/or students that provide information to modify teaching and learning activities in which they are engaged. Focusing on the individual and organizational needs that could help teachers use formative assessment frequently and effectively in classroom practices may be a good strategy to further develop this potential by expanding its scope of application. While formative assessment has the potential to significantly impact educational outcomes, its practical application often falls short of expectations. Thus, it is essential to identify the obstacles to its effective implementation by eliciting the perspectives of teachers who use formative assessment in their classrooms. Accordingly, this study aims to investigate the barriers that hinder teachers from effectively and consistently implementing formative assessment practices and to explore strategies for enhancing its effective use in Türkiye.

Formative Assessment in Türkiye

Summative assessment is one of the most commonly used approaches in classroom assessments in Türkiye. Research shows that teachers tend to prefer traditional methods and summative assessment tools in classroom practices (Acar-Erdol & Yıldızlı, 2018; Çelikkaya et al., 2010; Gelbal & Kelecioğlu, 2007; Kitchen et al., 2019; Yapıcı & Demirdelen, 2007). When asked why teachers use summative assessments more frequently, studies suggest that teachers feel more competent using these tools (Çelikkaya et al., 2010; Gelbal & Kelecioğlu, 2007). However, this focus on summative assessment limits the knowledge and skills that teachers can assess in students (Kitchen et al., 2019), thereby narrowing the scope of formative assessment, which is essential for learning.

In a review, İnaltun and Ateş (2018) highlighted that, despite the interest of scholars worldwide in formative assessment, the topic has not received enough attention in Türkiye, and more studies are needed to expand its use among teachers and researchers and contribute to international literature. In recent years, as formative assessment has become more commonly used in instruction in Türkiye, the number of studies on this topic has also increased, reflecting the growing interest of educators in these methods and their effects. Torun and Bektaş (2023) examined 38 graduate theses on formative assessment in Türkiye, finding that most studies focused on the impact of formative assessment on student outcomes, specifically cognitive performance and affective attitudes. However, studies on teachers and teacher candidates remain limited. Recognizing the lack of formative assessment practices and aiming to promote their widespread adoption within the Turkish education system, the Ministry of National Education (MoNE) of Turkey, through its Directorate General for Measurement, Evaluation, and Examination Services, published "Formative Assessment Activity Examples" in 2023 for grades 1 through 4. Similarly, the Directorate General for Secondary Education prepared the "Classroom Assessment Teacher Guidebook" to foster a process-oriented approach to classroom assessment and promote the use of diverse assessment tools. This guidebook, initially developed for mathematics, physics, chemistry, and biology, explains the concepts of classroom and formative assessment and provides sample activities that teachers can use in classroom evaluations. Similar efforts have also been undertaken for Turkish literature, geography, English, history, and philosophy courses. As part of these initiatives, an explanatory video was created for teachers, introducing concepts such as classroom assessment and formative assessment while presenting the relevant guidebooks. These efforts are expected to significantly influence the adoption of formative assessment practices. Alongside these ministerial efforts, academic discussions are needed to further emphasise the importance of formative assessment and the roles of teachers in this process within the context of Turkey.

The Impact of Formative Assessment and the Role of Teachers

Formative assessment enhances student learning (Hattie, 2009), improves student achievement (Furtak et al., 2016; Decristan et al., 2015), and has a positive effect on teachers' professional development (Black & William, 1998b; Brookhart, Moss & Long, 2008; Xuan, Cheung, Sun, & 2022). Ruiz-Primo and Furtak (2007) found that students in classrooms where teachers used formative assessment more effectively had higher achievement than students in other classes. Thus, formative assessment can make a difference among students with similar environmental variables and achievement levels within the same school.

The success of formative assessment depends on how teachers perceive and implement formative assessment activities (Yan et al., 2021). Therefore, teachers play a key role in successfully applying formative assessment. To fulfill this role, teachers need to have positive attitudes, beliefs, intentions, and self-efficacy regarding formative assessment. Studies emphasize that while teachers recognize formative assessment as an effective approach, they often fail to use it frequently and effectively in real classroom settings

(Büyükarıcı, 2014; Wylie & Lyon, 2015; Yan, 2021; Yan & Cheng, 2015). This suggests that teachers may be emotionally ready but unable to implement it in practice. In other words, formative assessment practices are not yet fully integrated into daily classroom activities, indicating room for improvement (Kippers et al., 2018; Wolterinck, 2022).

Formative Assessment: Barriers and Influencing Factors

Yan et al. (2021) identified two main categories of factors that either facilitate or hinder teachers' intentions and practices related to formative assessment: individual and contextual factors. Teachers' professional development training, attitudes, beliefs, and self-efficacy regarding formative assessment are individual factors, while the school environment, internal support, and cultural norms are considered contextual factors. Their review also highlighted that contextual factors influence not only teachers' practices but also their intentions regarding formative assessment. This research aims to contribute to the extension of the theoretical framework by analyzing the interaction of formative assessment with contextual factors. Therefore, when considering the multiple variables that influence the implementation of formative assessment, it is important to recognize the interaction between these variables and address them individually.

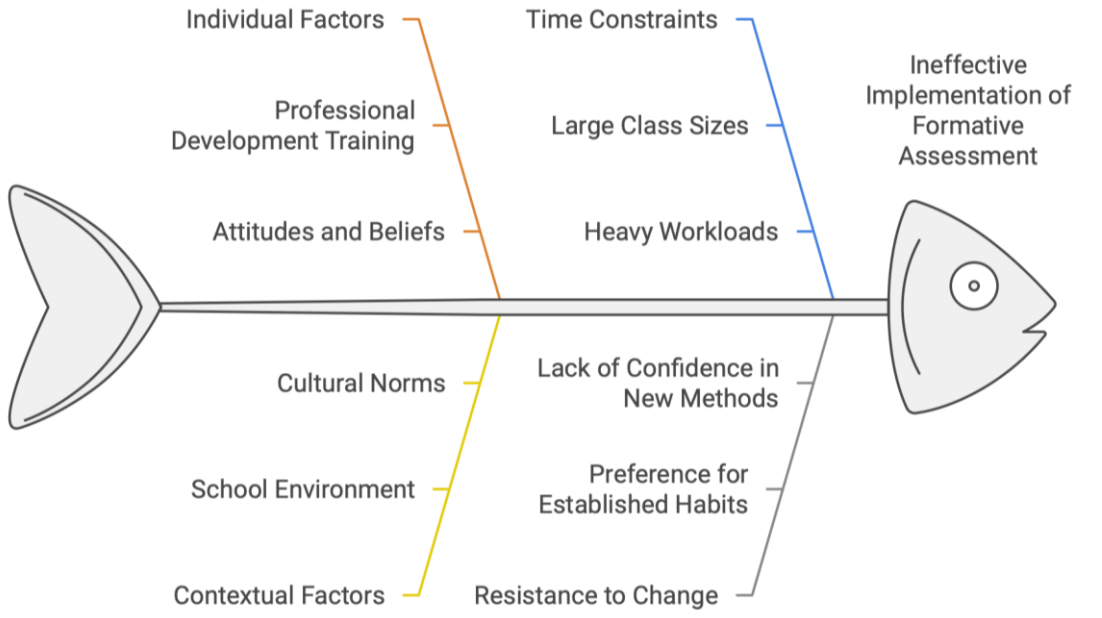


Figure 1. Barriers to Effect Implementation of Formative Assessment

Figure 1 illustrates the impact of teachers' characteristics, as well as the school environment and cultural norms they operate within, on formative assessment practices. Below, each component of the figure is detailed with subheadings, offering an in-depth examination of how these factors influence the effectiveness of formative assessment.

Time Constraints as a Barrier: One significant barrier that combines both individual and contextual factors is the perception of time constraints. Research conducted at various educational levels reveals a gap between theory and practice, with teachers struggling to implement formative assessment effectively due to large class sizes and heavy workloads (Büyükkarcı, 2014; Cisse et al., 2021; Elden, 2019; Yan & Brown, 2021). For instance, providing individualized feedback becomes challenging in classrooms with more than 30 students (Yan & Brown, 2021), and the opportunities for conducting peer and self-assessments are similarly restricted. Teachers often report that their busy curricula and perceptions of limited time hinder their ability to allocate sufficient time for formative assessment.

Heterogeneous Learning Groups: Heterogeneous groups are generally believed to foster more effective learning. However, in the case of formative assessment, the presence of students with widely varying learning levels can pose a barrier, especially when combined with the issue of large class sizes, creating a classroom climate that hinders the effective use of *formative assessment practices*.

Resistance to Change: Another critical factor is teachers' reluctance to change their assessment practices (Brown, 2004; Remesal, 2007). Cisse, Ndinga, and Sane (2021) observed that many teachers resist adopting formative assessment practices. This reluctance may stem from a preference for established habits, comfort with existing methods, and hesitation to explore new approaches. Marshall (2014) noted that teachers are more likely to employ formative and student-centred assessment strategies in subjects where they feel confident, while they tend to rely on traditional summative assessments in areas where they lack confidence. Furthermore, teachers' resistance to using formative assessment increases when they are inadequately prepared or lack the necessary knowledge and resources (Cisse et al., 2021).

Lack of Awareness: A lack of awareness or understanding of the benefits of formative assessment is another critical factor. Some teachers may not believe in the necessity of key elements of formative assessment, such as continuous feedback and student involvement, and this resistance can hinder its practical implementation.

To effectively use formative assessment in classrooms, both individual and contextual factors must be addressed. The existing literature offers a partial perspective on this issue, but a deeper investigation into how teachers perceive formative assessment within their specific contexts and the barriers they face in using it effectively could open the door to realizing the full potential of formative assessment across all types and levels of education.

Purpose of This Study

This study aims to gain a deeper understanding of how teachers perceive formative assessment, the challenges and barriers they face in its classroom application, the resources they need, the influence of educational policies, their suggestions for

improvement, and their professional development needs. These insights aim to provide a foundation for improving formative assessment practices.

- How do teachers define formative assessment, and what themes emerge from their definitions?
- What systemic issues hinder the effective implementation of formative assessment in classrooms?
- How does the constructivist nature of the curriculum and centralized exam systems affect teachers' use of formative assessment?
- What resources and professional development opportunities do teachers need to implement formative assessment effectively?
- How does the lack of technological infrastructure impact the use of formative assessment in classrooms?
- How do education policymakers and school administrators support or hinder the use of formative assessment?
- What strategies can be implemented to overcome the systemic challenges and improve formative assessment practices?

The research questions will provide detailed explanations and insights based on teachers' experiences, offering important information for the improvement of formative assessment practices.

Method

Research Design

This study was designed using a qualitative method, aiming to understand how teachers experience and interpret formative assessment and the barriers to its application in their classroom practices (Creswell, 2014). In phenomenological research design, the purpose is to explore how participants perceive and interpret similar experiences and identify commonalities in these interpretations. These commonalities can be expressed as the essence of experiences (Fraenkel & Wallen, 2006). In this way, the current state of formative assessment in the classroom can be understood based on the shared experiences and interpretations of the participant group.

Participants/study group

The study group comprised 24 teachers who hold master's degrees in Educational Measurement and Evaluation. Participants were selected through expert sampling, a purposive sampling method designed to leverage their expertise and experience to meet the study's objectives (Etikan & Bala, 2017). Purposive sampling is particularly effective for identifying information-rich cases that allow for in-depth examination (Patton, 1990). Teachers with advanced education in Educational Measurement and Evaluation possess enhanced knowledge, analytical skills, and a deeper understanding of formative assessment practices. Therefore, public school teachers with master's degrees in this field were chosen for their specialised expertise. The aim was to gain detailed insights into

the implementation, challenges, and potential improvements in formative assessment practices. Descriptive information about the participants is provided in Table 1.

Table 1. Descriptive information about the teachers in the study group

Code	Subject	School Type	Professional Experience (Years)	Number of Students
T1	Primary Mathematics	Middle School	2	35
T2	Classroom Teaching	Primary School	14	45
T3	Primary Mathematics	Middle School	11	24
T4	Turkish	Middle School	17	30
T5	Primary Mathematics	Middle School	10	35
T6	Preschool Teaching	Preschool	5	16
T7	Primary Mathematics	Middle School	3	25
T8	Turkish	Middle School	16	40
T9	English	Middle School	3	15
T10	Primary Mathematics	Middle School	10	30
T11	Primary Mathematics	Middle School	3	35
T12	Primary Mathematics	Middle School	3	40
T13	Primary Mathematics	Middle School	10	30
T14	Information Technologies	Middle School	11	40
T15	Information Technologies	Middle School	19	10*
T16	Primary Mathematics	Middle School	22	30
T17	Primary Mathematics	Middle School	9	35
T18	Primary Mathematics	Middle School	2	35
T19	Primary Mathematics	Middle School	1	-
T20	Primary Mathematics	Middle School	2	35
T21	Turkish	Middle School	15	40
T22	Primary Mathematics	Middle School	8	20
T23	Classroom Teaching	Primary School	11	30
T24	Classroom Teaching	Primary School	3	35

Among the teachers in the study group, 15 are female and 9 are male, showcasing a balanced gender representation. Their teaching experience varies significantly, ranging from 1 to 22 years. This range indicates that the study group includes both novice teachers who are just starting their careers and seasoned professionals with extensive experience. The variety in school types contributes to a rich exchange of ideas and practices among the participants, as they bring different perspectives based on their educational settings. To ensure maximum diversity, the selection of teachers considered various factors such as specialties, genders, school types, and levels of experience. This approach allows for a comprehensive understanding of the challenges and successes faced by teachers in different contexts.

Data Collection Tools

Data were collected through semi-structured interviews with teachers to gain in-depth insights into their perceptions and experiences with formative assessment. This approach allows for a nuanced understanding of how teachers apply formative assessment in diverse educational settings. Teachers were asked six main questions, with follow-up

probes provided for each question. An example question from the form is: "What resources do you need to make formative assessment more effective as a teacher? – Probes: Individual, Contextual, Technological."

The draft of the data collection tool was developed by combining a review of the literature with the research focus. It was then submitted for expert opinion to ensure content validity. Based on the feedback from the experts, the final interview form was created. No questions were removed or added during the pilot interviews; however, new follow-up probes were included, which enabled the researchers to gain deeper insights from participants.

Researcher Role

The researchers played an active role in both the design and execution of the research process. The researchers were responsible for developing the data collection tools, conducting the interviews, and ensuring ethical considerations were met. As the primary interviewer, the researchers established rapport with the participants, creating a comfortable and open environment for sharing their experiences. The researchers also transcribed the interviews, analyzed the data using thematic analysis, and ensured the reliability and validity of the findings through methods such as member checking and triangulation. Throughout the process, the researchers maintained an objective stance, aiming to accurately represent the participants' perspectives without introducing personal biases.

Data Collection Processes

Before the interviews, participants were provided with an information sheet outlining the purpose of the study. After obtaining their consent, decisions were made regarding the interview location. Some participants preferred to conduct the interviews in their workplaces, while others chose an external location. The face-to-face interviews lasted an average of 33 minutes, and audio recordings were made with the participants' consent.

The audio recordings were transcribed, resulting in approximately 14 pages of text per participant. The transcriptions were then sent back to the participants for verification, where they were asked if they wanted to add or revise any points. This process aimed to ensure both validation and additional contributions, fostering a collaborative environment that respects the voices and perspectives of the participants.

Data Analysis

Thematic analysis was employed to analyze the qualitative data. This method involves carefully examining the data, identifying common themes, and understanding participants' experiences and thoughts around these themes. The results were presented descriptively, often referencing participants' narratives. The findings were interpreted in line with the emerging themes and patterns (Yıldırım & Şimşek, 2008).

Credibility and Ethics

To ensure the credibility of this qualitative research, several strategies were employed throughout the study. First, *member checking* was utilized, where participants were allowed to review and verify the accuracy of their interview transcriptions. This process allowed for the correction of any potential misunderstandings or misinterpretations. Second, *triangulation* was employed by comparing the findings from interviews with existing literature to ensure the consistency and validity of the results.

In terms of ethical considerations, the study followed ethical guidelines for qualitative research. Informed consent was obtained from all participants before data collection. Participants were fully briefed about the purpose of the study, the confidentiality of their responses, and their right to withdraw from the study at any point. To maintain confidentiality, pseudonyms were used, and personal identifiers were removed from the data to protect participants' identities. The researchers also adhered to institutional ethical protocols, ensuring that the study met all ethical requirements.

Findings

This study explores the various definitions of formative assessment as articulated by teachers. It highlights the key themes that emerge from their perspectives, including the importance of monitoring student development, improving instructional processes, and providing continuous feedback.

Understanding Formative Assessment

The teachers' definitions of formative assessment can be summarized as follows: the teacher's ability to understand and assess the student, improve and support the instructional process, monitor student performance, identify learning deficiencies, provide continuous and individualized feedback, and conduct assessments that are not aimed at assigning grades.

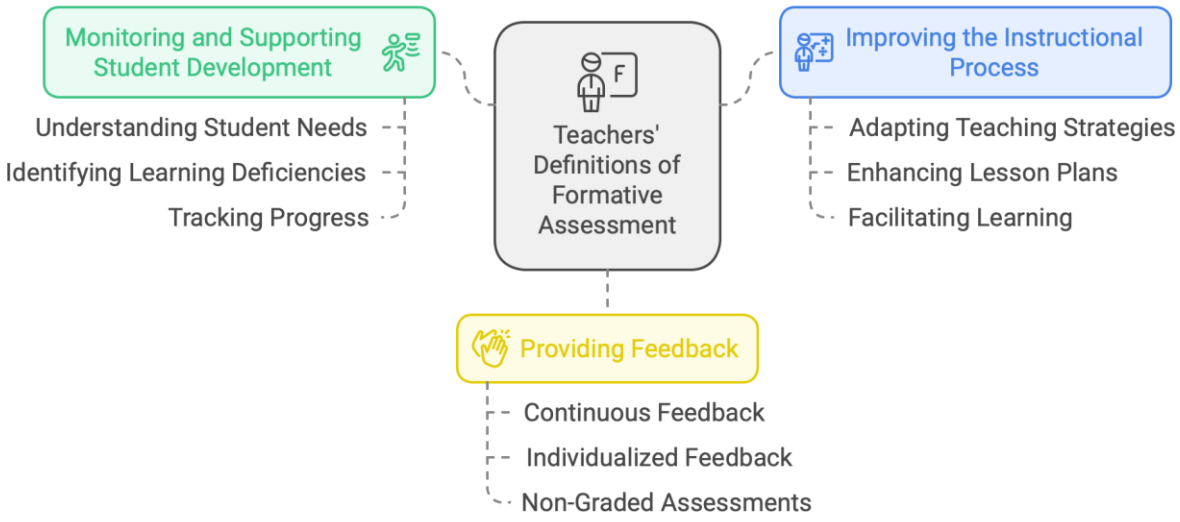


Figure 2. Teachers' Definitions of Formative Assessment

These statements reflect the key aspects that teachers focus on when defining formative assessment. Among these definitions, the most frequently repeated themes were monitoring and supporting student development (13 occurrences), improving the instructional process (6 occurrences), and providing feedback (4 occurrences).

Monitoring and Supporting Student Development

When defining formative assessment as monitoring and supporting student development, teachers highlighted that this assessment method aims to identify and address students' learning deficiencies and to ascertain the degree to which students have attained the desired behaviours. One teacher's perspective on this is that "formative assessment refers to the activities that contribute to determining the extent to which students have achieved the target behaviours or the areas where students encounter difficulties in learning." (T1).

The teachers emphasized that the process helps provide feedback to students, enabling them to recognize their learning deficiencies while also helping teachers decide how to proceed with the instructional process. This perspective is illustrated by T5: "Formative assessment helps provide feedback to students during the learning process. Through feedback, students can see whether they have learned sufficiently and what their deficiencies are. It also helps the teacher decide how to continue with the instructional process."

Additionally, teachers stated that formative assessment supports the learning process, serving as a tool for identifying and correcting misconceptions throughout the instructional process. One teacher's view on this is that "It is a process that supports the learning process, identifies and corrects misconceptions during the learning process, and aims to impart the knowledge and skills intended to be taught (T3)."

Improving the Instructional Process

The second most frequently mentioned theme after monitoring and evaluating student development was the improvement of the instructional process. Teachers emphasized that formative assessment aims to support and improve the instructional process by assessing student performance. They described formative assessment as a way for teachers to better understand their students and enhance communication. The following view from T4 illustrates this "I define it as an assessment that allows teachers to understand their students comprehensively; to better assess their interests, skills, learning styles, and deficiencies; and to strengthen teacher-student communication."

Moreover, teachers defined formative assessment as an ongoing process to assess learning, identify challenges, and address them during instruction. One teacher's view on this is that "It is a type of assessment conducted during the instructional process to determine the extent to which the knowledge intended to be learned has been learned, by identifying the missing or incorrect points and correcting the mistakes and filling in the gaps (T12)."

Providing Feedback

Another prominent theme in the teachers' definitions of formative assessment was the provision of feedback. In this context, formative assessment was defined as an assessment practice aimed at continuously providing feedback to students, identifying learning deficiencies, correcting mistakes, and supporting student development. "Formative assessment helps provide feedback to students during the learning process. Through feedback, students can see whether they have learned sufficiently and what their deficiencies are. It also helps the teacher decide how to continue with the instructional process (T5)."

In conclusion, teachers' definitions of formative assessment focused on identifying and addressing students' learning deficiencies and determining the extent to which they have achieved the desired behaviours. In these definitions, feedback was expressed as an essential part of the process.

Factors that Hinder Teachers' Implementation of Formative Assessment

One of the research questions aimed to identify the main challenges teachers face when implementing formative assessment in their classrooms.

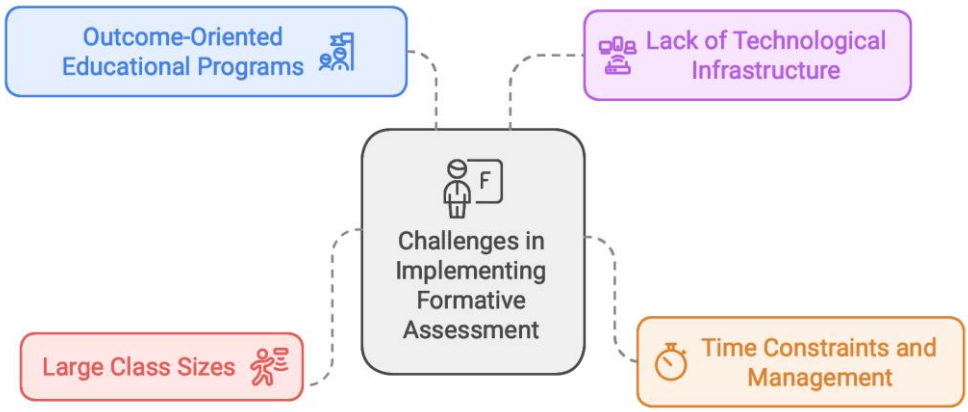


Figure 3. Challenges in Implementing Formative Assessment

The key difficulties encountered by teachers in applying formative assessment include large class sizes, time constraints and management, outcome-oriented educational programs, and a lack of technological infrastructure. These factors affect the formative assessment process and make its implementation in the classroom more difficult.

Large Class Sizes

The first challenge is large class sizes, which were mentioned by 13 out of 23 participants. Teachers expressed that managing a high number of students complicates the identification of learning difficulties and the provision of personalized feedback. For instance, T10 stated that "Having large class sizes makes it difficult to carry out additional work addressing each student's learning difficulties."

Teachers indicated that formative assessment is more manageable in smaller classes, where they can focus on individual student needs. T15 emphasized, "In my opinion, one of the biggest challenges in implementing formative assessment is class size."

Time Constraints and Management

Time constraints also emerged as a significant barrier. Teachers reported that providing individual feedback can disrupt the flow of the curriculum and lead to classroom disorder. T23 echoed this opinion, stating, "The insufficient time allocated for each learning outcome and the excessive number of lessons and subjects make time management difficult."

Maintaining classroom order during formative assessment is particularly challenging when students are unmotivated or disengaged. T11 noted, "Since students are unfamiliar with this type of assessment, they tend to disregard the feedback, and the teacher's efforts remain ineffective."

Outcome-Oriented Educational Programs

The outcome-oriented nature of the educational system poses another challenge. The emphasis on exam results often undermines the value of process-oriented approaches, leading to the underutilization of formative assessment. T16 stated, "The lack of adoption of formative assessment stems from the dominance of an outcome-oriented assessment culture, which is driven by the education system and its stakeholders."

Lack of Technological Infrastructure

Finally, the lack of access to technological tools significantly hampers the implementation of formative assessment. Teachers reported difficulties due to inadequate resources, such as smart boards, projectors, and internet access. T9 commented, "The lack of equipment at the school, such as internet/phone connection issues, shortages of books/notebooks, and worn-out or broken equipment, makes it difficult to implement formative assessment." T22 added, "Not having access to technological tools such as smart boards and projectors, or not being able to use Web 2.0 tools, creates challenges."

In conclusion, teachers experience both systemic and individual difficulties in implementing formative assessment. These individual challenges can often be viewed as reflections of broader systemic issues within the classroom context.

Resources Teachers Need to Make Formative Assessments More Effective

This theme delves into the essential resources and professional development opportunities that educators require to enhance the effectiveness of formative assessment in their classrooms.

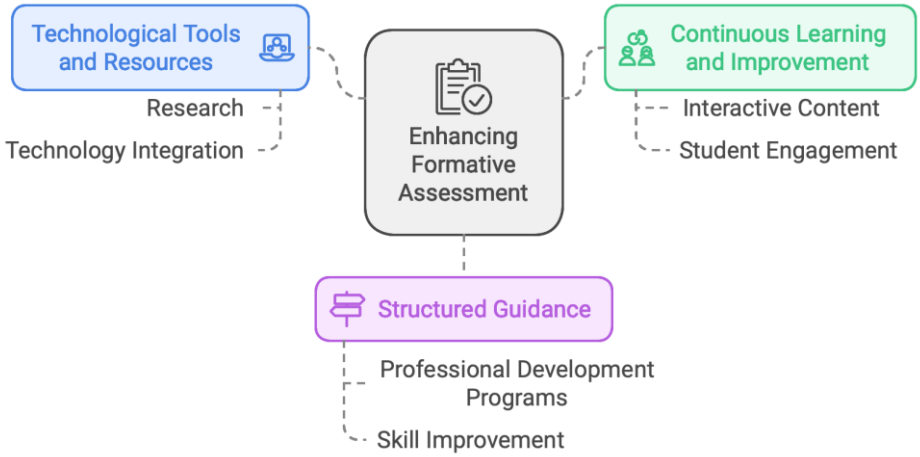


Figure 4. Enhancing Formative Assessment

It underscores the importance of technological tools, engaging instructional materials, and systematic guidance to support educators in capturing students' engagement and promoting active participation. Additionally, it addresses teachers' recommendations for

enhancing formative assessment competencies, emphasising the value of research, technology integration, and structured professional development programs.

Technological Tools and Resources

In line with this theme, teachers focused on the need for access to technological tools, sample resources, guidebooks, and the integration of digital tools. To make formative assessment more effective, resources that engage students' interest and curiosity, such as Web 2.0 tools and interactive applications, as well as customized materials and activities, visually stimulating media, and other educational content, could be used. Such resources play an important role in capturing students' attention, encouraging active participation, and enhancing learning motivation. "I try to spark curiosity in students. I use Web 2.0 tools to make learning fun and help them learn from their mistakes. I need resources that will capture students' attention (T1)."

Many teachers expressed that they require technological infrastructure to make formative assessment more effective. Smart boards, fast internet connections, and digital assessment materials and applications can help facilitate student participation, feedback, and engagement in the learning process.

Additionally, it was found that teachers need sufficient and exemplary resources to make formative assessments more effective. These resources could include teacher guidebooks, sample activities that guide teachers, and formative assessment applications tailored to specific lessons and subjects. In summary, although the teachers in this study are aware of the significance and benefits of formative assessment, they emphasized the need for guidance and support in terms of resources and technology.

Structured Guidance

Teachers expressed that they could develop their skills in formative assessment by engaging in research, utilizing available resources, using educational technologies, participating in professional development programs, improving their planning and evaluation processes, specializing in their fields, increasing student motivation, and focusing on professional growth. They indicated that they strive to improve themselves by reading the literature and conducting research in the field. T18 commented "I've read a few articles on this topic, and I'm aware of its impact. That's why I try to implement assessments in my classroom by reviewing evaluations conducted in the field. I can improve myself by conducting more practical studies."

Continuous Learning and Improvement

Teachers emphasized the value of ongoing professional development and staying updated on new practices:T6: "I try to attend any training seminars I can participate in on this topic." T23 added: "By participating in national and international professional development programs...". Teachers also expressed that they could increase their knowledge by reviewing resources related to their fields. T22: "I try to read related

publications (articles, etc.), I have participated in in-service training offered by the Ministry of Education, and I follow other relevant training programs."

By participating in in-service training, reviewing resources, and effectively using technology, teachers can develop their skills in formative assessment and aim to provide more effective education for their students.

Results and Discussion

When teachers define formative assessment, it becomes evident that the key aspects they emphasize align with the core principles of the concept. Therefore, it can be argued that the understanding of formative assessment has become well-established among teachers who have pursued graduate-level education in measurement and evaluation. Based on this, and considering the goal of disseminating formative assessment to support students' holistic development and the achievement of educational goals, it is recommended that teachers, in general, receive training in measurement and evaluation, with a particular focus on formative assessment. In other words, enhancing teachers' literacy in formative assessment could help them better understand the concept and apply it in their classroom practices. The central discussion here revolves around the notion that one cannot implement what is not understood. Given the relative novelty of formative assessment in pre-service and in-service teacher training programs, it is advisable for teachers to first become acquainted with the concept and observe practical examples that they can implement in their classrooms. This study suggests that teacher education programs should focus on formative assessment. Similarly, the national literature suggests that only a small proportion of teachers have achieved the desired level of theoretical and practical understanding of formative assessment (Kaya, Atasoy, Candan-Helvacı, & Pektaş, 2020).

Research has revealed both conceptual (DeLuca, 2012; Schneider & Bodensohn, 2017) and practical (Yan, 2021) deficiencies in teachers' formative assessment literacy. Vogt and Tsagari (2014) found that most teachers receive inadequate assessment training and rely heavily on on-the-job experience. These deficiencies suggest that more professional development programs focused on formative assessment literacy should be encouraged. In this study, although teachers' understanding of formative assessment is based on theoretical knowledge, the challenges they face in practice are largely shaped by factors such as class size, time constraints, and educational policies. Even teachers with a high awareness of formative assessment who attempt to apply it in the classroom encounter difficulties in practice.

One of the most notable challenges is the large number of students in the classroom, which complicates the identification of learning difficulties and the process of providing feedback. Similarly, crowded classrooms hinder the ability to conduct additional work aimed at addressing each student's learning difficulties. Teachers have noted that while it is easier to implement formative assessment in smaller groups, it becomes significantly

more challenging in larger classes. As class size increases, it becomes harder for teachers to monitor individual students (Cisse et al., 2021) and identify learning difficulties. Consequently, effectively implementing formative assessment and providing individualized support becomes a demanding task in larger classrooms. As the number of students decreases, teachers find it easier to closely monitor students and focus on their individual needs. This study presents significant findings on how educational policies, such as class size, time constraints, and exam-focused curricula, limit teachers' implementation of formative assessment. In particular, it has been observed that as class sizes increase, teachers struggle to monitor student performance and the process of providing individualized feedback becomes hindered. This situation creates negative effects on teachers' assessment practices and directly impacts student achievement.

In the Turkish context, as in international literature, a large class size refers to classrooms with 30 or more students (Işık, 2012). The fact that the research participants predominantly teach in crowded classrooms may have brought this issue to the forefront. Andersson and Palm (2015) emphasize that during formative classroom practices, a heavy workload makes it difficult to allocate time for developing and implementing the method.

The findings of this research align with those of Elden (2019), who studied formative assessment practices in early childhood education; Büyükarıcı (2014), who examined elementary school English teachers; and Cisse et al. (2021), who researched middle school teachers. In these studies, teachers also reported difficulties with assessment due to large class sizes, time constraints, and additional workload.

In addition to class size and related issues such as feedback and identifying learning difficulties, systemic challenges were also raised. Although Turkey's curriculum is said to be based on a constructivist educational philosophy, there is still a structured curriculum that must be completed within a specified time frame. The outcome-oriented nature of centralized exams has transformed the education system, with stakeholders such as parents, students, administrators, and inspectors ultimately expecting teachers to cover the curriculum. Similarly, in the study conducted by Kansızoğlu,Kansızoğlu & Karataş (2024) it was emphasized that improving teachers' formative assessment competencies, expanding national policies in this direction, and reducing the negative effects of test-oriented examination systems are essential. The findings show that teachers struggle to implement formative assessment under the influence of centralized exams in education. This issue should be examined not only within the framework of educational policies but also in the context of broader socioeconomic factors. For example, a more detailed analysis of how resource shortages or the socioeconomic level of the school's location limit teachers' formative assessment practices would add depth to this topic.

As a result, there is limited opportunity to implement formative classroom practices that could provide rich feedback and guide each student’s learning journey. Student diversity also complicates the implementation of formative assessment. Teachers indicated that students have different learning needs, interests, and skill levels. This diversity requires

teachers to make additional efforts to adapt formative assessment to different student profiles and meet each student's needs.

Andersson and Palm (2015) highlighted that mixed-age groups, large classes, or groups with a wide range of abilities make it difficult for teachers to apply formative classroom practices.

Teachers with sufficient knowledge and expertise in measurement and evaluation still require access to resources such as Web 2.0 tools, interactive applications, and student-specific materials and activities to effectively use formative assessment in their classrooms. These resources not only encourage active student participation but also guide teachers, helping them manage the assessment process more efficiently.

Based on participants' understanding of formative assessment, as discussed above, the importance of literacy and professional development was highlighted. Participants provided supportive insights on how both they and their colleagues can improve in this area. Teachers aim to enhance their formative assessment practices by engaging in research, utilizing resources, applying educational technologies, attending in-service training, and continually updating themselves. Black and Wiliam (1998) describe formative assessment as a complex process requiring comprehensive professional development. Teachers need professional support (Wylie & Lyon, 2015) to strengthen their understanding of formative assessment and effectively implement assessment strategies. Greater knowledge and understanding of formative assessment will help teachers apply it more frequently in their classrooms (Li et al., 2023). This perspective underscores the necessity for teachers to continually improve themselves to enhance the formative assessment process. Formative assessment in the classroom requires teachers to know each student individually, and this, in turn, demands that teachers stay up-to-date.

Recommendations

Based on the findings of this study, several recommendations can be made to address the challenges teachers face in implementing formative assessment and to enhance their formative assessment literacy. These recommendations take into account both individual and contextual factors that shape teachers' practices, with an emphasis on addressing the broader systemic issues highlighted by the research.

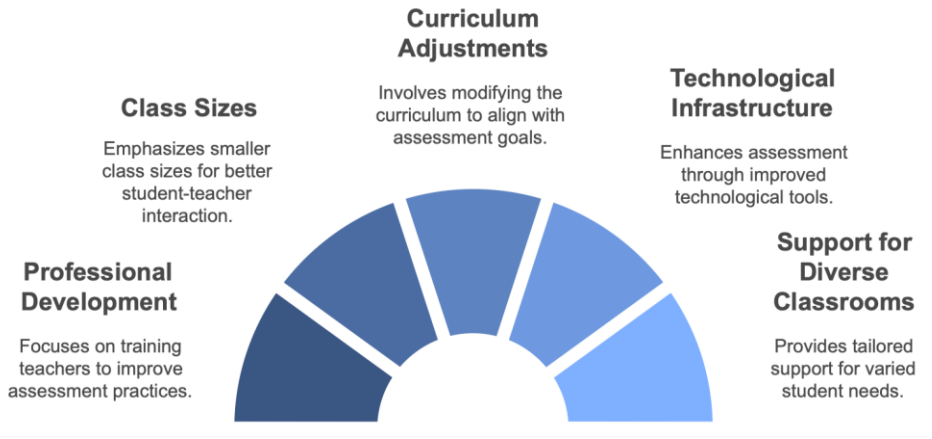


Figure 4. Formative Assessment Enhancement

Teachers should receive comprehensive training in formative assessment practices in pre-service and in-service teacher education programs. This training should not only focus on theoretical knowledge but also offer practical applications to ensure that teachers can implement formative assessment strategies in diverse classroom settings. Understanding how contextual factors—such as class size, socioeconomic conditions, and curriculum pressures—impact formative assessment practices should be included as part of this training.

Education policymakers should consider reducing class sizes, especially in schools with large student populations. Smaller class sizes would allow for more personalized feedback and the ability to identify and address learning difficulties more effectively. These efforts must consider the broader socioeconomic contexts of schools, as smaller class sizes alone may not resolve issues in resource-poor environments.

A reevaluation of the curriculum should be undertaken to allocate sufficient time for formative assessment activities. Teachers often face time constraints due to an overloaded curriculum, which limits the opportunity to implement formative assessment effectively. This reevaluation should consider the balance between curriculum goals, the time needed for formative assessment, and the overarching educational policies that emphasize standardized testing and outcome-oriented education.

Schools should be equipped with the necessary technological tools, such as smart boards, projectors, and reliable internet access, to support the implementation of formative assessment. Additionally, teachers should be trained to use these tools effectively in formative assessment practices, making use of Web 2.0 tools and interactive applications.

Teachers should be provided with resources and strategies to address the diverse learning needs of their students. Professional development programs should focus on adapting formative assessment to meet the varying levels of abilities, learning styles, and interests within the classroom. This could include differentiated instruction strategies that

allow for more individualized assessment and feedback, particularly in classrooms with significant student diversity.

There should be a shift away from the outcome-oriented nature of the current education system, which places excessive emphasis on high-stakes testing. Formative assessment, which is process-oriented, should be integrated more deeply into the assessment culture of schools, with stakeholders (teachers, parents, and administrators) valuing the process of learning over exam results.

Schools and districts should promote a collaborative culture where teachers can share their experiences, challenges, and successes in implementing formative assessment. Peer learning and mentorship can help teachers improve their formative assessment practices and address common obstacles.

References

Acar-Erdol, T.,& Yıldızlı,H. (2018). Classroom assessment practices of teachers in Turkey. *International Journal of Instruction, 11*(3), 587-602. https://doi.org/10.12973/iji.2018.11340a

Andersson, C., & Palm, T. (2018). Reasons for teachers' successful development of a formative assessment practice through professional development–a motivation perspective. Assessment in Education: Principles, Policy & Practice, 25(6), 576-597. https://doi.org/10.1080/0969594X.2018.1430685

Black, P., & Wiliam, D. (1998a). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7-74.

Black, P. J., & William, D. (1998b). Inside the black box: Raising standards through classroom assessment. *The Phi Delta Kappan, 80*(2), 139–148.

Brookhart, S., Moss, C., & Long, B. (2008). Formative assessment. *Educational Leadership, 66*(3), 52-57.

Brown, G. T. L. (2004). Teachers' conceptions of assessment: Implications for policy and professional development. *Assessment in Education: Principles, Policy & Practice,11*, 301–331. https://doi.org/10.1080/0969594042000304609

Cisse, F., Ndinga, P.,& Sane, M.V.L. (2021). Challenges related to the practice of formative assessment in the context of the competency-based approach in Quebec. *International Journal of Innovation and Research in Educational Sciences, 8*(4), 2349–5219.

Büyükkarcı, K. (2014). Assessment beliefs and practices of language teachers in primary education. *International Journal of Instruction, 7*(1), 107-120. https://eric.ed.gov/?id=EJ1085246

Creswell, J. (2014). *Research design. Qualitative, Quantitative, and Mixed Methods Approaches.* (Fourth ed.). Sage.

Çelikkaya, T., Karakuş, U. ve Öztürk-Demirbaş, Ç. (2010). Sosyal Bilgiler öğretmenlerinin ölçme-değerlendirme araçlarını kullanma düzeyleri ve karşılaştıkları sorunlar. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi, 11*(1), 57-76.

Decristan, J., Klieme, E., Kunter, M., Hochweber, J., Büttner, G., Fauth, B., Hondrich, A. L., Rieseri Svenja, R., Hertel, S. & Hardy, I. (2015). Embedded formative assessment and classroom process quality: How do they interact in promoting science understanding. *American Educational Research Journal, 52*(6), 1133-1159. https://doi.org/10.3102/0002831215596412

DeLuca, C. (2012). Preparing teachers for the age of accountability: Toward a framework for assessment education. *Action in Teacher Education, 34*(5-6), 576-591. https://doi.org/10.1080/01626620.2012.730347

Elden, A. (2019). Okul öncesi öğretmenlerinin biçimlendirici değerlendirme uygulamaları (Tez No. 554302) [Yüksek lisans tezi, Başkent Üniversitesi-Ankara]. Yükseköğretim Kurulu Ulusal Tez Merkezi.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, *5*(6), 00149. https://doi.org/10.15406/bbij.2017.05.00149

Fraenkel, J. R., & Wallen, N. E. (2003). *How to Design and Evaluate Research in Education*. New York, NY: McGraw-Hill.

Furtak, E. M., Kiemer, K., Circi, R. K., Swanson, R., de León, V., Morrison, D., & Heredia, S. C. (2016). Teachers' formative assessment abilities and their relationship to student learning: Findings from a four-year intervention study. *Instructional Science, 44*(3), 267–291. https://doi.org/10.1007/s11251-016-9371-3

Gelbal, S. ve Kelecioğlu, H. (2007). Öğretmenlerin ölçme ve değerlendirme yöntemleri hakkındaki yeterlik algıları ve karşılaştıkları sorunlar. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 33*, 135-145.

Hattie J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Işık, S. (2024). Sosyal Bilgiler Dersinde Sınıf içi Geri Bildirim Uygulamalarının Öğrenci Başarısına Etkisi (Master's thesis, Marmara Universitesi (Turkey)).

İnaltun, H., & Ateş, S. (2018). Fen Bilimleri eğitiminde biçimlendirici değerlendirme: Literatür taraması. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 38*(2), 567-612. https://doi.org/10.17152/gefad.353975

Kansızoğlu, N., Kansızoğlu, H. B., & Karataş, F. Ö. (2024). Turkish Language Teachers' Formative Assessment Competencies and Barriers for Formative Assessment: A Mixed-Methods Study. *Pegem Journal of Education and Instruction*, *14*(4), 457-473. https://doi.org/10.47750/pegegog.14.04.44

Kaya, G., Atasoy, V., Candan-Helvacı, S., & Pektaş, M. (2020). Fen öğretmenlerinin biçimlendirici değerlendirmeye yönelik farkındalığının sınıf içi uygulamalarındaki rolü. *Eğitim ve Bilim, 46*(205), 335-357. https://doi.org/10.15390/EB.2020.8934

Kippers, W. B., Wolterinck, C. H. D., Schildkamp, K., Poortman, C. L., & Visscher, A. J. (2018). Teachers' views on the use of assessment for learning and data-based decision making in classroom practice. *Teaching and Teacher Education, 75*, 199–213. https://doi.org/10.1016/j.tate.2018.06.015

Kitchen, H., et al. (2019), OECD Reviews of Evaluation and Assessment in Education: Student Assessment in Turkey. OECD Reviews of Evaluation and Assessment in Education, OECD Publishing. https://doi.org/10.1787/5edc0abe-en.

Li, Z., Yan, Z., Chan, K. K. Y., Zhan, Y., & Guo, W. Y. (2023). The role of a professional development program in improving primary teachers' formative assessment literacy. *Teacher Development*, *27*(4), 447-467. https://doi.org/10.1080/13664530.2023.2223595

Lysaght, Z., Scully, D., Murchan, D., O'Leary, M., & Shiel, G. (2019). Aligning assessment, learning and teaching in curricular reform and implementation. Retrieved from: https://ncca.ie/media/4442/aligning-assessment-learning-and-teaching-in-curricular-reform-and-implementation.pdf

McMillan, J. (2015). *Sınıf içi değerlendirme, etkili ölçütlere dayalı etkili bir öğretim için ilke ve uygulamalar* (A. Arı,Trans. Ed.) Eğitim Yayınevi.

Oo, C. Z., Alonzo, D., & Asih, R. (2022). Acquisition of teacher assessment literacy by pre-service teachers: A review of practices and program designs. *Issues in Educational Research*, *32*(1), 352-373.

Patton, M. (1990). Qualitative evaluation and research methods (pp. 169-186). Beverly Hills, CA: Sage.

Remesal, A. (2007). Educational reform and primary and secondary teachers' conceptions of assessment: The Spanish instance, building upon Black and Wiliam. *The Curriculum Journal, 18*(1), 27-38. https://doi.org/10.1080/09585170701292133

Schneider, C., & Bodensohn, R. (2017). Student teachers' appraisal of the importance of assessment in teacher education and self-reports on the development of assessment competence. Assessment in Education: Principles, Policy & Practice (24) 127–146. https://doi.org/10.1080/0969594X.2017.1293002

Torun, B., & Pektaş, M. (2023, September). Fen Eğitiminde Biçimlendirici Değerlendirme Bileşenlerinin Kullanılmasına Yönelik Bir Durum Çalışması. In Conference Abstract Book (p. 44).

Vogt, K., & Tsagari, D. (2014). Assessment literacy of foreign language teachers: Findings of a European study. *Language Assessment Quarterly*, *11*(4), 374-402. https://doi.org/10.1080/15434303.2014.960046

Yan, Z., & Brown, G. T. (2021). Assessment for learning in the Hong Kong assessment reform: A case of policy borrowing. Studies in Educational Evaluation, 68, 100985. https://doi.org/10.1016/j.stueduc.2021.100985

Yan, Z., & Cheng, E. C. K. (2015). Primary teachers' attitudes, intentions and practices regarding formative assessment. Teaching and Teacher Education, 45, 128-136. http://dx.doi.org/10.1016/j.tate.2014.10.002

Yan, Z., Li, Z., Panadero, E., Yang, M., Yang, L., & Lao, H. (2021). A systematic review on factors influencing teachers' intentions and implementations regarding formative assessment. *Assessment in Education: Principles, Policy & Practice*, *28*(3), 228-260.

https://doi.org/10.1080/0969594X.2021.1884042

Yan,Z. (2021) Assessment-as-learning in classrooms: the challenges and professional development. *Journal of Education for Teaching, 47*(2), 293-295, https://doi.org/10.1080/02607476.2021.1885972

Yıldırım, A., ve Simsek, H. (2008). *Sosyal bilimlerde nitel araştirma yöntemleri* (7.Baskı).Seçkin Yayıncılık.

Wolterinck, C. H. D. (2022). Teacher professional development in Assessment for Learning. [PhD Thesis - Research UT, graduation UT, University of Twente]. University of Twente. https://doi.org/10.3990/1.9789036554664

Xuan, Q., Cheung, A., & Sun, D. (2022). The effectiveness of formative assessment for enhancing reading achievement in K-12 classrooms: A meta-analysis. Frontiers in Psychology, 13, 990196. . https://doi.org/10.3389/fpsyg.2022.990196

Genişletilmiş Türkçe Özet

Araştırmalar, öğretmenlerin biçimlendirici değerlendirmenin etkili bir öğretim yaklaşımı olduğunu bilmelerine rağmen, gerçek sınıf ortamlarında bu yöntemi sık ve etkili bir şekilde uygulamakta zorluk yaşadıklarına dikkat çekmektedir. Bu çalışmanın amacı, öğretmenlerin biçimlendirici değerlendirme uygulamalarında karşılaştıkları engelleri keşfetmek, bu kavramı nasıl algıladıklarını, sınıf içi uygulamalarda karşılaştıkları zorlukları, ihtiyaç duydukları kaynakları, eğitim politikalarının etkilerini ve mesleki gelişim ihtiyaçlarını derinlemesine incelemektir. Fenomenolojik desen ile tasarlanan bu araştırma, ölçme ve değerlendirme alanında lisansüstü eğitim almış 24 öğretmenin deneyim ve görüşlerine dayanmaktadır. Katılımcılar biçimlendirici değerlendirmeyi, öğrenci gelişimini izlemek, öğretim sürecini geliştirmek, geri bildirim sağlamak ve öğrenme eksikliklerini tespit etmek amacıyla kullanmaktadır. Ancak, sınıf mevcudunun fazla olması, zaman sınırlamaları, müfredat yoğunluğu, öğrenci çeşitliliği, sonuç odaklı eğitim programları ve teknolojik altyapı eksiklikleri gibi faktörler, biçimlendirici değerlendirmenin sınıf içinde etkili bir şekilde uygulanmasını zorlaştıran temel engeller olarak ortaya çıkmıştır. Öğretmenler, ayrıca biçimlendirici değerlendirme süreçlerini geliştirmek için mesleki gelişime ihtiyaç duyduklarını belirtmişlerdir.

Katılımcılar tarafından vurgulanan en önemli zorluklardan biri kalabalık sınıflardır. Bu durum, öğrenme güçlüklerinin tespit edilmesini ve öğrencilere bireysel geri bildirim verilmesini zorlaştırmaktadır. Öğretmenler, sınıf mevcudunun 30'un üzerinde olduğu Türkiye'de, her öğrencinin öğrenme sürecini yakından izleyebilmenin zorlaştığını ve biçimlendirici değerlendirmenin büyük sınıflarda uygulanmasının daha zor olduğunu belirtmişlerdir. Zaman yönetimi ve müfredatın yoğunluğu da sıkça dile getirilen engeller arasındadır. Öğretmenler, geniş müfredat kapsamı altında biçimlendirici değerlendirme için yeterli zaman bulmakta zorlandıklarını ifade etmişlerdir.

Eğitim sisteminin sonuç odaklı yapısı da öğretmenlerin biçimlendirici değerlendirme kullanmalarını zorlaştırmaktadır. Öğrenci başarısının sınav sonuçlarına göre değerlendirilmesi, süreç odaklı eğitim yaklaşımlarını ikinci plana itmekte ve biçimlendirici değerlendirmenin sınıf içinde uygulanmasını sınırlamaktadır. Ayrıca, akıllı tahta, projeksiyon cihazı ve internet gibi teknolojik araçlara erişim eksikliği, öğretmenlerin biçimlendirici değerlendirme süreçlerinde karşılaştıkları önemli bir başka engeldir.

Buna rağmen, ölçme ve değerlendirme alanında güçlü bir altyapıya sahip olan öğretmenler, biçimlendirici değerlendirmenin potansiyel faydalarını fark etmiş ve geri bildirimin öğrenme sürecinde önemli bir rol oynadığını vurgulamışlardır. Katılımcılar, biçimlendirici değerlendirmenin sürece yayılması gerektiğini, öğrencilerin kavram yanılgılarını tespit etmek ve düzeltmek için kullanılması gerektiğini belirtmiştir. Bu anlayış, öğretmenlerin biçimlendirici değerlendirmeyi teorik düzeyde benimsediklerini ancak uygulamada sistemsel ve bireysel engellerle karşılaştıklarını göstermektedir.

Bu bağlamda, biçimlendirici değerlendirmenin yaygınlaştırılması için öğretmenlerin hem hizmet öncesi hem de hizmet içi eğitimlerle desteklenmesi gerektiği önerilmektedir. Eğitim politikaları, sonuç odaklı sınavların baskın olduğu sistemden uzaklaşıp, biçimlendirici değerlendirmeyi merkeze alan süreç odaklı yaklaşımları teşvik etmelidir. Ayrıca, teknolojik altyapının iyileştirilmesi ve sınıf mevcudunun azaltılması, öğretmenlerin bu yöntemi daha etkili kullanmalarını sağlayacaktır. Son olarak, öğretmenlerin eğitim teknolojilerini kullanma, mesleki gelişim programlarına katılma ve alan yazını takip etme gibi bireysel çabalarla biçimlendirici değerlendirme uygulamalarını daha etkili hale getirebilecekleri de belirtilmiştir.

Bu araştırma, öğretmenlerin karşılaştıkları engelleri aşmalarına yardımcı olabilecek stratejiler sunarak, biçimlendirici değerlendirmenin sınıflarda daha etkin bir şekilde kullanılmasına katkı sağlamayı hedeflemektedir. Bulgular, eğitim politikaları ve uygulamalarını biçimlendirici değerlendirme süreçlerine entegre etmek için önemli ipuçları sunmaktadır.

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