

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

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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

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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.

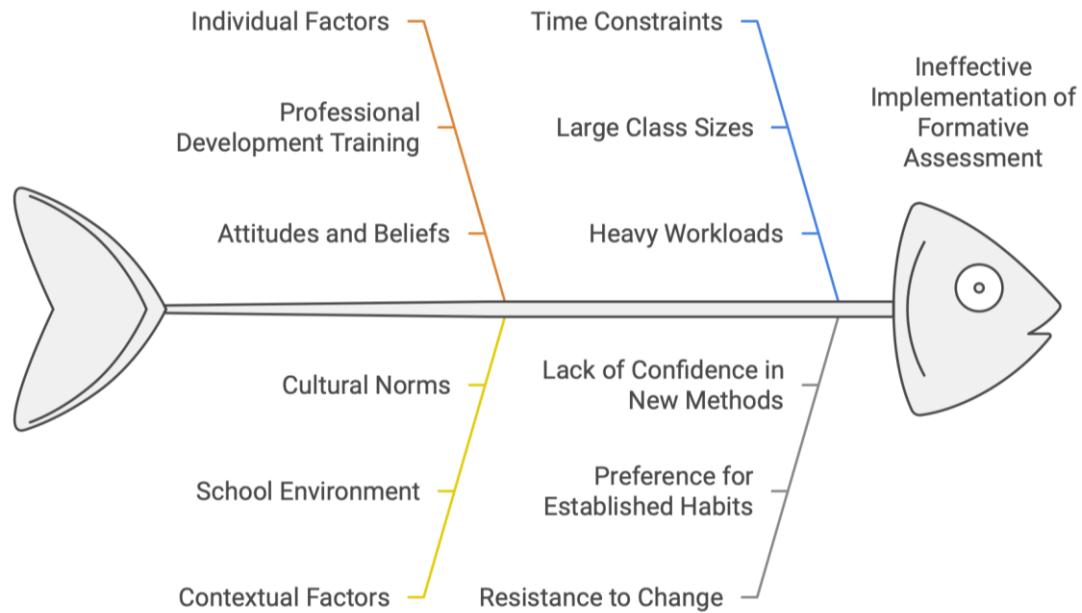


Figure 1. Barriers to Effect Implementation of Formative Assessment

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 (Büyükkaracı, 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.

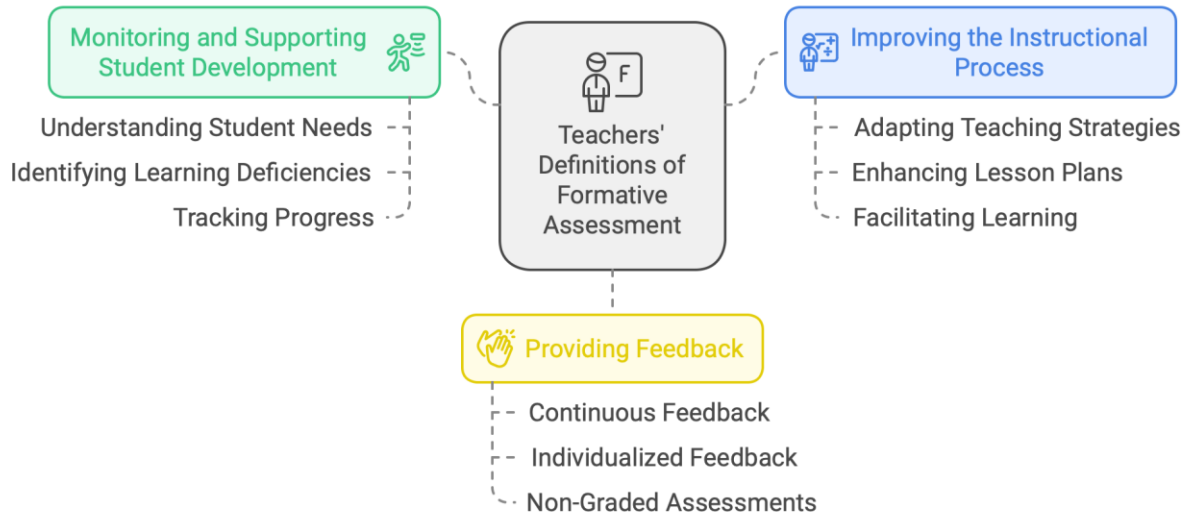


Figure 2. Teachers' Definitions of Formative Assessment

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.

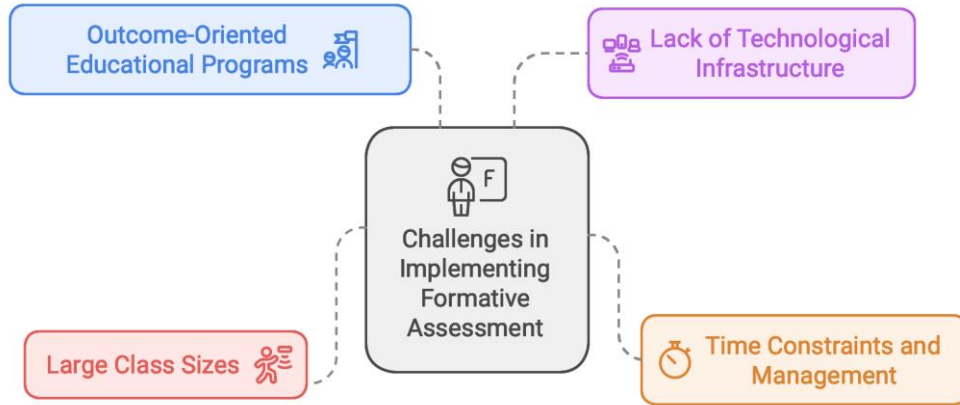


Figure 3. Challenges in Implementing Formative Assessment

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.

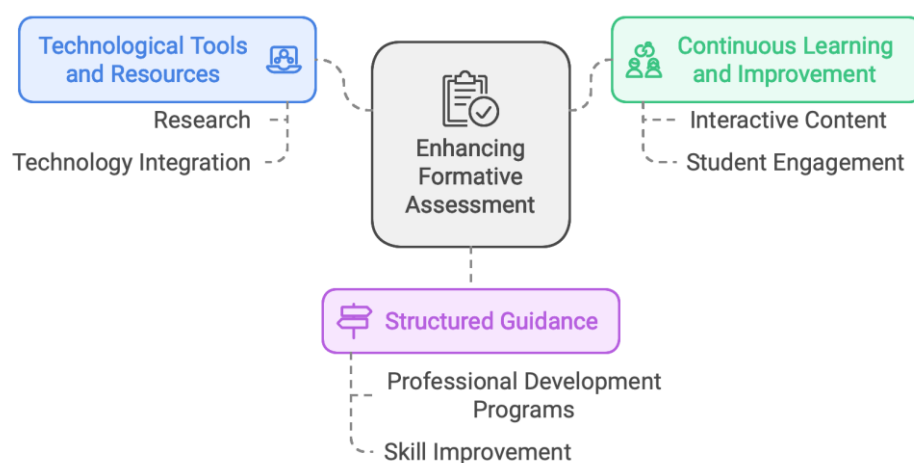


Figure 4. Enhancing Formative Assessment

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-Helvaci, & 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.

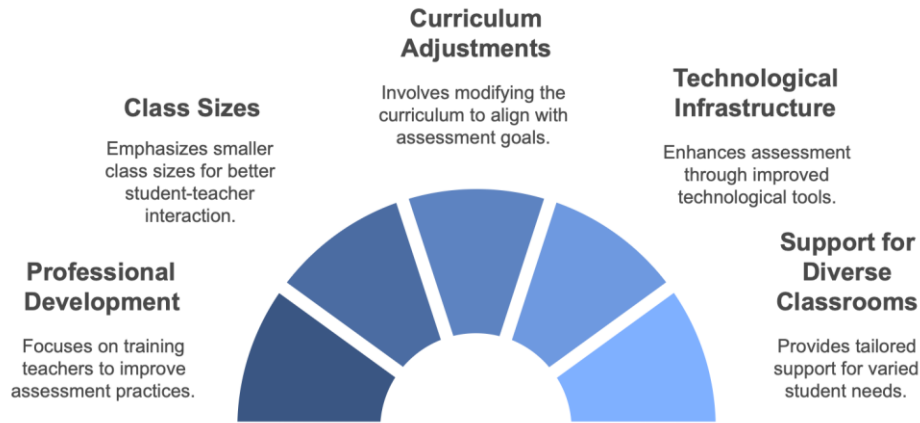


Figure 4. Formative Assessment Enhancement

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.

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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 bildirim 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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