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Araştırma Makalesi * Research Article

**Examination of Primary School Teachers' Attitudes and Self-Efficacy Levels
Towards Formative Assessment**

**İlkokul Öğretmenlerinin Biçimlendirici Değerlendirmeye Yönelik Tutum ve
Özyeterlik Düzeylerinin İncelenmesi***

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Abstract: Formative assessment helps teachers to identify learning needs and challenges as well as helping students to develop a stronger understanding of their own academic strengths and weaknesses. The aim of this study is to determine the effect of a formative assessment training programme for primary school teachers on teachers' attitudes towards formative assessment and their self-efficacy perceptions. A total of 79 primary school teachers working in Kahramanmaraş province in the 2024-2025 academic year participated in the study. Teachers' attitudes and self-efficacy perceptions towards formative assessment before and after the training were compared. The results showed that there was a statistically significant increase in teachers' attitudes and self-efficacy levels towards formative assessment after the training. Attitude and self-efficacy levels did not differ according to gender and professional experience, but it was seen that the self-efficacy levels of the participants with postgraduate education were higher. Finally, teachers' positive and negative opinions on formative assessment were analysed. Teachers' positive opinions are generally in the themes of formative assessment supporting student improvement and providing rapid feedback. Negative opinions, on the other hand, centred on the themes that formative assessment is time-consuming and difficult to implement in crowded classrooms.

Keywords: Formative assessment, attitude, self-efficacy, primary school teachers

Öz: Biçimlendirici değerlendirme, öğretmenlerin öğrenme ihtiyaçlarını ve zorluklarını belirlemelerine yardımcı olmanın yanı sıra öğrencilerin kendi akademik güçlü ve zayıf yönlerine ilişkin daha güçlü bir anlayış geliştirmelerine yardımcı olur. Bu çalışmanın amacı, ilkökul öğretmenlerine yönelik bir biçimlendirici değerlendirme eğitim programının öğretmenlerin biçimlendirici değerlendirmeye yönelik tutumları ve öz yeterlik algıları üzerindeki etkisini belirlemektir. Çalışmaya 2024-2025 eğitim-öğretim yılında Kahramanmaraş

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ilinde görev yapan toplam 79 ilkokul öğretmeni katılmıştır. Öğretmenlerin eğitim öncesi ve sonrası biçimlendirici değerlendirmeye yönelik tutumları ve öz yeterlik algıları karşılaştırılmıştır. Sonuçlar, eğitim sonrasında öğretmenlerin biçimlendirici değerlendirmeye yönelik tutum ve öz yeterlik düzeylerinde istatistiksel olarak anlamlı bir artış olduğunu göstermiştir. Tutum ve öz yeterlik düzeyleri cinsiyet ve mesleki deneyime göre farklılık göstermezken, lisansüstü eğitime sahip katılımcıların öz yeterlik düzeylerinin daha yüksek olduğu görülmüştür. Son olarak, öğretmenlerin biçimlendirici değerlendirmeye ilişkin olumlu ve olumsuz görüşleri analiz edilmiştir. Öğretmenlerin olumlu görüşleri genellikle biçimlendirici değerlendirmenin öğrenci gelişimini desteklemesi ve hızlı geri bildirim sağlaması temalarındadır. Olumsuz görüşler ise biçimlendirici değerlendirmenin zaman alıcı olduğu ve kalabalık sınıflarda uygulanmasının zor olduğu temalarında yoğunlaşmaktadır.

Anahtar Kelimeler: Biçimlendirici değerlendirme, tutum, öz yeterlik, ilkokul öğretmenleri

INTRODUCTION

Assessment in education plays a critical role in measuring student achievement, monitoring learning processes and evaluating the effectiveness of teaching methods. Evaluation processes, beyond providing information to students, are organised in order to guide the teaching process, identify weaknesses and ensure continuous improvement in education. In general, assessment types can be categorised into two main categories: summative assessment and process-oriented assessment. Summative assessment is a type of assessment that is carried out at the end of the learning process and measures whether students have achieved certain objectives. Process-orientated assessment, on the other hand, aims to monitor and guide the learning process and support students' learning by providing continuous feedback to them (Taras, 2005). Traditionally, summative assessment methods are used to measure students' achievement. However, such assessment methods may be limited in terms of monitoring progress in the learning process or providing feedback to students. In this context, formative assessment, which is one of the main examples of process-oriented assessment (Black & Wiliam, 1998), involves students more actively in the learning process by identifying their strengths and aspects open to improvement. One of the most important contributions of formative assessment emphasised in the literature is that it provides regular feedback to students and increases students' learning motivation through this feedback (Sadler, 1989).

In the educational literature, the positive effects of formative assessment on student achievement are frequently emphasised (Hattie & Timperley, 2007). Research shows that if formative assessment is used effectively, students' motivation to learn increases and more permanent learning is achieved (Wafubwa, 2020). Hattie and Timperley (2007) considered feedback as one of the most important components of formative assessment as it enables students to gain awareness of their own learning processes. In particular, effective feedback guides students in which areas they can improve by showing their current learning situation (Morris et al., 2021; Shute, 2008). In this context, improving teachers' formative assessment skills plays a critical role in improving the quality of feedback processes for students.

Teachers' attitudes towards formative assessment and their perceptions of self-efficacy also have a decisive importance in carrying out this process effectively (Yan & Cheng, 2015). In particular, teachers' approach to formative assessment processes can directly affect their intention to apply this type of assessment and their self-confidence. According to Yan and Cheng's (2015) study, although teachers have high positive attitudes and intentions towards formative assessment, there are some barriers that make it difficult for them to implement this type of assessment regularly in their classrooms. These barriers include factors such as classroom management difficulties, time limitations, and the fact that assessment processes require additional effort in terms of planning. Despite these difficulties, the increasing adoption of formative assessment among teachers reveals the importance of the need for training on this subject (Heritage, 2007).

Teachers' Training Needs on Formative Assessment

Formative assessment is an important method that supports the learning process in education and provides continuous feedback on students' development (Black & Wiliam, 1998). However, the effective

application of this method in educational environments requires teachers to have sufficient knowledge, skills and application tools. In this context, the trainings that teachers need in order to improve their knowledge and skills about formative assessment have gained more and more importance in educational research (Heritage, 2007). Various studies emphasise the necessity of supporting teachers' professional development in order to implement formative assessment effectively.

In order for teachers to gain formative assessment skills, it is important that they acquire both theoretical knowledge and practical skills. Schildkamp et al. (2020) study addresses the effective use of formative assessment in the classroom and reveals the importance of equipping teachers with techniques that can support student development. In this study, the effectiveness of formative assessment is discussed in the context of its impact on teachers' implementation competences and assessment techniques. In addition, Arrafii and Sumarni (2018) stated that English teachers' level of knowledge about formative assessment has a direct impact on their practices and that meeting teachers' development needs in this area contributes to students' learning process.

It is emphasised in different studies that professional development programmes should be structured to help teachers overcome the difficulties they face in formative assessment processes. Widiastuti and Saukah (2017), in their study conducted in Indonesia, stated that English teachers need training in managing formative assessment processes and revealed that they face difficulties such as time constraints and lack of resources in the training process. It was stated that such barriers make it difficult for teachers to use formative assessment techniques effectively and that professional development programmes should provide teachers with the necessary knowledge and skills to overcome these difficulties.

For the applicability of formative assessment in classrooms, it is important for teachers not only to learn how to conduct formative assessment, but also to develop their ability to provide effective feedback in these processes. Heritage (2007) emphasises that teachers' ability to monitor student performance and provide effective feedback is one of the most important components of formative assessment in classroom practice. The ability to provide effective feedback enables teachers not only to indicate students' successes or failures, but also to provide guidance that can improve their learning processes. Similarly, Pastore et al. (2019) reported that Italian teachers developed positive attitudes towards formative assessment and providing feedback, but had difficulties in using these techniques effectively in their classrooms due to the difficulties they experienced in practice.

Providing the required training support for teachers to feel competent in formative assessment practices and to integrate this type of assessment into classroom practices will contribute to students' learning processes. Boerst et al. (2019) addressed the skills developed by pre-service teachers in formative assessment processes and emphasised the importance of increasing the competencies of teachers to monitor students' learning processes. According to the study, it is seen that formative assessment trainings for pre-service teachers improve their skills in providing effective feedback and evaluating student learning processes. This situation provides important tips on the need to determine the training needs of teachers and to support them in the training process.

In conclusion, it is of great importance to provide comprehensive, practice-oriented and structured training programmes to improve teachers' formative assessment skills. In order for formative assessment to be used effectively in teachers' classroom practices, professional development programmes should provide a comprehensive content, support implementation skills and enable teachers to develop strategies to overcome the difficulties they face.

This study aims to examine the effects of 'Formative Assessment Methods Training in Primary Schools' on teachers' attitudes, intentions and self-efficacy perceptions. Through a pre-test administered before the training programme and a post-test administered after the programme, the changes in teachers' perceptions of formative assessment were analysed. In addition, analysing teachers' positive and negative opinions on formative assessment is important for a deeper understanding of the impact of training on these elements. The study also aims to provide important findings on how formative assessment can be effectively adopted in educational settings by analysing the results according to teachers' demographic characteristics. The findings may contribute to

supporting students' learning processes more effectively by providing recommendations for educational policies and meeting teachers' professional development needs. For these aims, answers to the following three problem statements will be sought in the research.

Q1. Is there a significant difference in teachers' attitudes and self-efficacy levels towards formative assessment before and after the training?

Q2. Do teachers' attitudes and self-efficacy levels towards formative assessment differ significantly according to teachers' demographic characteristics?

Q3. What are the positive and negative opinions of teachers towards formative assessment?

METHOD

Research Design

In this study, the effects of formative assessment training on teachers' attitudes and self-efficacy perceptions towards formative assessment were examined in a single group pretest-posttest experimental design. In this design, an independent variable is applied to a certain group and the measurements are made before and after the experiment and the pre-test and post-test scores of the group are compared. In this design, there is no randomisation and matching (Büyüköztürk et al., 2015).

Sample

In the 2024-2025 academic year, 79 classroom teachers working in Kahramanmaraş were the study group of the research. 'Formative Assessment Methods Training in Primary Schools' lasting 12 hours was applied to the teachers in four groups. Demographic information was collected from the teachers before the training. Demographic characteristics of the study group are given in Table 1.

Table 1. *The Demographic Characteristics of the Sample*

Variable	Category	Frequency	Percent
Gender	Female	35	44.3
	Male	44	55.7
Professional Experience	Less than 20 Years	25	31.6
	20 Years and More	54	68.4
Education Level	Undergraduate	70	88.6
	Postgraduate	9	11.4

When Table 1 is analysed, it is seen that approximately 56% of the participants are male teachers. 68% of the teachers have 20 years or more experience. When the distribution according to educational background is analysed, it is seen that 88.6% of the participants have undergraduate education and only 11.4% of them have postgraduate education.

Data Collection Tool

In the study, "Teachers' Conceptions and Practices of Formative Assessment Scale", which was adapted into Turkish by Karaman and Şahin (2017), was used as a data collection tool. The original scale was developed by Yan and Cheng (2015) and consists of 40 items and seven sub-dimensions. The adaptation study consists of six sub-dimensions and 38 items. According to the confirmatory factor analysis results, the fit indices confirmed the factor structure of the scale ($\chi^2 = 848.79$, $sd = 446$, $p = .00$, $\chi^2 / sd = 1.90$, $RMSEA = .055$, $RMR = .034$, $GFI = 0.85$, $AGFI = .82$, $CFI = .92$, $TLI = .92$, $IFI = .92$). Cronbach Alpha (α) and McDonald Omega (ω) internal consistency coefficients for the sub-dimensions of the scale were also reported to be at a high level. In this study, attitude and self-efficacy sub-dimensions of the scale

were applied to teachers. The scale is a five-point Likert scale with 10 items in the attitude sub-dimension and 6 items in the self-efficacy sub-dimension.

In addition, two open-ended questions were included in the data collection tool to obtain teachers' positive and negative opinions on formative assessment.

Data Analysis

The scale was administered to the participants before and after the training twice. Demographic information on gender, professional experience and educational level were also collected from the teachers. The data obtained were transferred to SPSS 27 program. For the first sub-problem of the study, the normality of the distributions in the attitude and self-efficacy dimensions for the pre-test and post-test scores were tested. It was seen that the normality assumption was met. Dependent samples t-test was used to test whether there was a difference between the averages for the pre-test and post-test scores. In the second sub-problem, according to the post-test data, it was examined whether there was a significant difference between the groups according to gender, professional seniority and educational status in teachers' attitudes and self-efficacy levels towards formative assessment. Normality assumptions were tested for each independent variable group. It was seen that at least one of the groups for the independent variables did not meet the normality assumption. For this reason, the Mann-Whitney U test was used to test whether there was a difference between the independent variable groups consisting of two categories. For the last sub-problem, teachers' positive and negative opinions about formative assessment were obtained. Teachers' responses were coded separately for positive and negative opinions and two categories were formed. Positive and negative opinions were combined under thematic headings and reported comparatively.

RESULTS

In this section, the findings of the research are presented for each sub-problem respectively.

Q1. Is there a significant difference in teachers' attitudes and self-efficacy levels towards formative assessment before and after the training?

Table 2. Pre-test and Post-test Results of Teachers' Attitudes and Self-efficacy Levels Towards Formative Assessment

Factor	Test	N	\bar{x}	sd	t	p
Attitudes	Pre-Test	79	37.11	78	3.03	0.003
	Post-Test	79	39.52	78		
Self-efficacy	Pre-Test	79	21.52	78	3.02	0.003
	Post-Test	79	23.09	78		

When Table 2 is examined, according to the results of the dependent samples t-test conducted to evaluate the effect of the training program, there is a statistically significant difference between the pre-training ($\bar{x}=37.11$) and post-training ($\bar{x}=39.52$) attitude scores of the participants ($t(78) = 3.03, p<.05$). The post-training scores were significantly higher than the pre-training scores, indicating that the training program was effective in increasing the attitude scores of the participants. When self-efficacy scores were examined, a statistically significant difference was found between the pre-training ($\bar{x}=21.52$) and post-training ($\bar{x}=23.09$) self-efficacy scores ($t(78) = 3.02, p<.05$). This situation similarly shows that the training program was effective in increasing the self-efficacy scores of the participants. In Figure 1, the effect of formative assessment training on teachers' formative assessment attitudes and self-efficacy levels is presented with a violin plot.

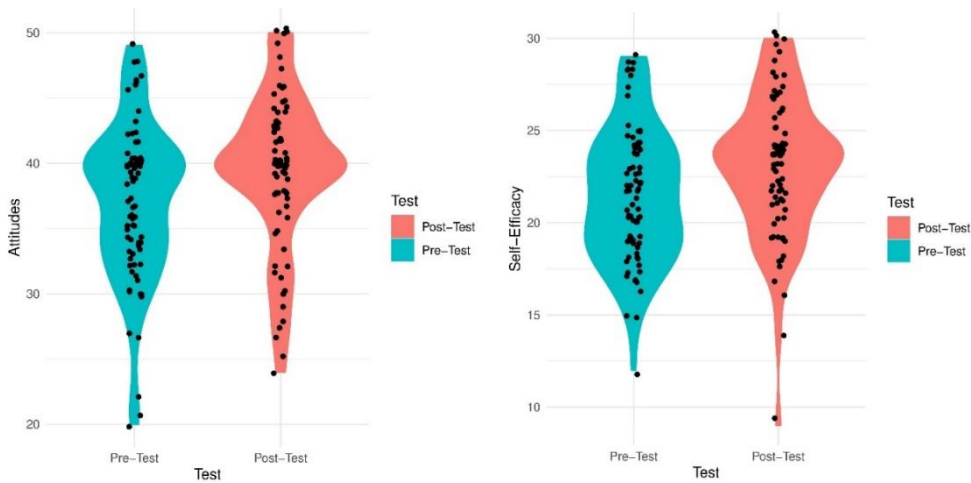


Figure 1. Comparison of Attitude and Self-Efficacy Levels Before and After Training

When Figure 1 is analyzed, it is seen that both teachers' attitudes and self-efficacy levels towards formative assessment increased in the posttests compared to the pretest. In addition, in both attitude and self-efficacy variables, low and medium level scores in the pretest increased and moved to medium and high level scores in the posttest. This finding shows that formative assessment training increased the attitudes and self-efficacy levels of the participants with low or medium scores towards formative assessment more.

Q2. Do teachers' attitudes and self-efficacy levels towards formative assessment differ significantly according to teachers' demographic characteristics?

Table 3. Examination of the difference between groups according to gender

Variable	Gender	N	Row Mean	Row Sums	U	p
Attitude	Male	44	41.88	1842,50	687,50	0.412
	Female	35	37.64	1317,50		
Self-Efficacy	Male	44	43.42	1910,50	619,50	0.134
	Female	35	35.70	1249,50		

According to Table 3, no statistically significant difference was found between the attitude levels of male participants (Median = 40.00) and female participants (Median = 40.00) ($U = 687.50, p > .05$). For self-efficacy levels, no significant difference was found between male participants (Median = 24.00) and female participants (Median = 23.00) ($U = 619.50, p > .05$). In Table 4, it was examined whether the attitudes and self-efficacy levels of teachers differed according to professional experience.

Table 4. Examination of the difference between groups according to Professional experience

Variable	Professional Exp.	N	Row Mean	Row Sums	U	p
Attitude	Less than 20 years	25	36.60	915,00	590,00	0.366
	20 years and more	54	41.57	2245,00		
Self-Efficacy	Less than 20 years	25	34.90	872,50	547,50	0.175
	20 years and more	54	42.36	2287,50		

When Table 4 is examined, no significant difference was found between the attitude levels of the participants with less than 20 years of professional experience (Median = 36.60) and the attitude levels

of the participants with 20 years or more of professional experience (Median = 41.57) ($U = 590.00$, $p > .05$). For self-efficacy levels, no significant difference was found between the participants with less than 20 years of professional experience (Median = 34.90) and the participants with 20 years or more of professional experience (Median = 42.36) ($U = 547.50$, $p > .05$). In Table 5, it is analyzed whether teachers' attitudes and self-efficacy levels differed according to their education level.

Table 5. Examination of the difference between groups according to educational level

Variable	Edu Level	N	Row Mean	Row Sums	U	p
Attitude	Undergraduate	70	38.87	2721,00	236.00	0.219
	Postgraduate	9	48.78	439,00		
Self-Efficacy	Undergraduate	70	37.97	2658,00	173.00	0.027
	Postgraduate	9	55.78	502,00		

When Table 5 is examined, no significant difference was found between the attitude levels of the participants with undergraduate education (Median = 38.87) and the attitude levels of the participants with graduate education (Median = 48.78) ($U = 236.00$, $p > .05$). However, for self-efficacy levels, a significant difference was found between the participants with undergraduate education (Median = 34.90) and the participants with graduate education (Median = 42.36) ($U = 173.00$, $p < .05$). Participants with postgraduate education had higher self-efficacy levels.

Q3. What are the positive and negative opinions of teachers towards formative assessment?

Teachers' positive and negative opinions on formative assessment were examined and content analysis was conducted. Table 6 was created by determining the themes and frequency numbers.

Table 6. Teachers' Opinions on Formative Assessment

Opinions	Theme	Frequency
Positive	Student Improvement	27
	Rapid Feedback	26
	Identify Strengths and Weaknesses	17
	Teaching Quality	2
Negative	Time Management	35
	Applicability in Crowded Classrooms	20
	Paperwork Load	16
	Motivation and Energy Needs	1

When Table 6 is examined, themes related to positive opinions were student improvement, rapid feedback, identify strengths and weaknesses, and teaching quality. Themes related to negative opinions were time management, applicability in crowded classes, paperwork load, motivation and energy needs. Seven of the participants did not express any positive or negative opinions. In total, the opinions of 72 teachers were received. Some teacher responses regarding positive and negative opinions are given below.

Positive Opinions

T3: It helps us to get to know the students better and to eliminate deficiencies. It saves unnecessary repetition.

T5: It can be useful for students' academic success. Since it can be applied in digital environment, it can prevent paper waste.

T27: It allows students to help each other. Student motivation can be provided more easily. It can be a more fair evaluation.

T46: It supports permanent learning by instantly identifying what students have learned, their deficiencies, and the aspects that need to be strengthened during the education process and giving feedback.

T72: It is important in terms of being a process-oriented evaluation. Learning can take place better with the feedback given.

Negative Opinions

T13: It needs many years for full implementation.

T20: Time may not be enough. The teacher needs to show serious effort and dedication. The intensity of the curriculum, high class size and short class hours are important problems.

T48: I think that students may have difficulties in the future because it is not suitable for the central exam system.

T66: It may not be economical in terms of material. It may not be applied in every unit.

T69: It takes a lot of time. The topics are too many. The number of students is high. It is difficult to apply for every student. It would be easier if it is in e-school etc. platforms.

DISCUSSION AND CONCLUSION

Formative assessment is seen as a critical tool in education to increase student achievement and support learning processes (Andersson & Palm, 2017). This type of assessment provides continuous feedback to students, helping them to recognize learning deficiencies in a timely manner and enabling more effective participation in learning processes (Black & Wiliam, 1998; Sadler, 1989). However, effective implementation of formative assessment by teachers is only possible if they have sufficient knowledge and skills about this method (Heritage, 2007). This study examines whether teachers' attitudes and self-efficacy perceptions towards formative assessment differ significantly before and after the training and the effect of demographic characteristics on these perceptions. The findings of the study show that the formative assessment training program significantly increased both teachers' attitudes and self-efficacy levels. The findings obtained from the pre-test and post-test analyses show that teachers developed a positive orientation towards formative assessment approaches and their perceptions of efficacy regarding these assessment processes increased significantly. This result shows that formative assessment practices can be effective in supporting teachers' professional development. Many studies in the literature are similar to the findings of this study (Babinčáková et al., 2023; Yan et al., 2022; Yan et al., 2021).

The findings also examined the role of demographic variables on teachers' perceptions of formative assessment. Analyses in terms of gender and professional experience showed that these demographic characteristics did not create a significant difference in teachers' attitudes and self-efficacy levels. This suggests that formative assessment provides similar perceptions and efficacy levels in all teacher groups regardless of gender and experience. However, in the analyses conducted in terms of education level, it was observed that the self-efficacy scores of teachers with postgraduate education were higher. This finding suggests that educational level may be a determining factor in teachers' adoption of formative assessment and their competencies in managing these assessment processes. Arin (2023) examined teachers' perceptions of formative assessment according to different variables. The findings of the study showed that teachers' attitudes and self-efficacy levels towards formative assessment did not differ significantly according to gender, experience and education level. The findings of the current study are similar to the findings of Arin (2023) in terms of gender and experience.

In this study, teachers' positive and negative opinions on formative assessment were evaluated through content analysis and these opinions were classified under various themes. Among the positive opinions, themes such as supporting student improvement, identifying strengths and weaknesses, providing rapid feedback and improving the teaching quality came to the fore. This finding shows that the contribution of formative assessment to the learning process is appreciated by teachers and that it provides a more constructive and supportive learning environment for students. The findings of this study are similar to many studies in the literature that formative assessment increases student motivation and provides deeper insight into the learning process (Haug & Ødegaard, 2015; Stanja et al., 2023; Weurlander et al., 2012). However, among the negative opinions, difficulties related to the teaching process such as time management, applicability in crowded classrooms and paperwork load came to the fore. These findings suggest that various structural and technical adjustments are needed to increase the applicability of formative assessment. Similar to the positive opinions, the negative opinions identified in this study are also found in many studies in the literature (Glazer, 2014; López-Pastor et al., 2013; Ozan & Kincal, 2018).

As seen in the literature review, the training that teachers need on formative assessment is not only about gaining theoretical knowledge but also includes practical skills to integrate this assessment method into classroom practices (Widiastuti & Saukah, 2017; Schildkamp et al., 2020). Heritage (2007) stated that teachers should improve their techniques of providing feedback, while Shute (2008) pointed out that feedback has positive effects especially on low-performing students. In this context, improving teachers' feedback skills will support more efficient implementation of formative assessment in the classroom. Schildkamp et al. (2020) emphasized that formative assessment should be seen as a tool not only for student achievement but also for teachers to evaluate and improve their teaching methods. In this study, it was seen that teachers' attitudes and self-efficacy levels towards formative assessment changed positively after the training they received. For these reasons, training programs that combine theoretical knowledge with practical applications should be offered to improve teachers' formative assessment skills. These programs should be enriched with interactive and practice-oriented activities that address the challenges teachers face in the classroom (Boerst et al., 2020).

Research shows that formative assessment offers multidimensional contributions such as providing effective feedback, improving students' self-regulation skills and increasing their responsibility for learning (Hattie & Timperley, 2007; Shute, 2008). In this context, teachers' development of formative assessment skills will contribute to students' more active and responsible management of the learning process. As Widiastuti and Saukah (2017) found in their study, one of the biggest barriers teachers face when implementing formative assessment is the classroom management difficulties encountered during the planning and implementation stages of these processes. Providing implementation-oriented support by addressing such practical barriers in teacher trainings will increase the applicability of formative assessment in the classroom. Yan and Cheng (2015) found that despite teachers' positive attitudes towards formative assessment, they faced implementation challenges such as time constraints, classroom management and lack of resources. Within the scope of this study, it can be stated that the positive and negative teacher opinions towards formative assessment are similar in scope. Therefore, in order for teachers to use this type of assessment more effectively, professional development programs are needed to help them overcome these barriers.

In conclusion, given the critical role of formative assessment in education, the importance of professional development programs to support teachers' knowledge and skills in this type of assessment emerges. Comprehensive training programs are needed to strengthen teachers' ability to provide feedback, monitor student progress, and improve learning processes. In addition, teachers need to be supported in areas such as time management, classroom management and integration of assessment tools in order to use formative assessment more effectively. In this context, comprehensive and continuous development opportunities should be provided to meet teachers' training needs in formative assessment. The effectiveness of formative assessment will be enhanced if teachers have adequate knowledge of feedback techniques. Therefore, professional development programs focusing on feedback strategies and individual feedback skills appropriate to student needs should be organized. In order for pre-service teachers to acquire formative assessment skills, this type of assessment should be included in teacher training programs. These programs should provide pre-service teachers with

basic skills on how to use formative assessment techniques effectively. In order to implement formative assessment effectively, schools need to provide a supportive infrastructure and administrative support. It is believed that school policies that encourage the feasibility of formative assessment will make it easier for teachers to use this type of assessment more widely. In sum, in order to strengthen the role of formative assessment in education, teachers' training needs for this type of assessment should be addressed comprehensively and educational policies should be shaped accordingly.

RECOMMENDATIONS

Based on the findings of this study, three recommendations are suggested for the effective implementation of formative assessment by teachers. First, tools and resources to support the practice should be developed. In order to overcome barriers such as time management and workload, teachers should be provided with digital tools and resources to support their effective use of formative assessment. For example, digital assessment tools where formative assessment products can be uploaded and artificial intelligence-supported platforms that provide quick feedback should be prepared and their use should be encouraged. Secondly, formative assessment trainings should be provided. The findings of this study show that formative assessment training has a positive effect on teachers' attitudes and self-efficacy levels towards formative assessment. Therefore, trainings that will improve teachers' classroom assessment and evaluation skills and increase their skills towards formative assessment should be organized. Third, in order to increase teachers' feedback skills in formative assessment, professional development programs on feedback techniques and strategies should be organized for teachers.

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