

TYPES OF IN-SCHOOL ASSESSMENT: FORMATIVE AND SUMMATIVE ASSESSMENTS

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Abstract. The article presents an analysis of formative and summative assessments, which are the main types of in-school assessment. It provides information about the types of assessment, as well as the aims and objectives, benefits, etc., of formative and summative assessment. Furthermore, the article includes information about the theories underlying these assessments. The study of these types of assessment plays a significant role in identifying the positive and negative aspects of their application in modern education. It is shown that the use of assessments significantly improves learning outcomes. Numerous studies have indicated that formative assessments facilitate deeper learning, increase student engagement, and enhance overall academic achievement. One of the main advantages is that learning gaps can be identified and addressed before they become entrenched. Regular assessments allow teachers to provide immediate feedback, correct misconceptions, and reinforce concepts when necessary. The article also analyzes the impact of using these assessments on learning outcomes.

Keywords: education strategies, teacher training, assessments, formative assessment, summative assessment.

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MƏKTƏBDAXİLİ QIYMƏTLƏNDİRMƏNİN NÖVLƏRİ: FORMATİV VƏ SUMMATİV QIYMƏTLƏNDİRMƏLƏR

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Annotasiya. Məqalədə məktəbdaxili qiymətləndirmənin əsas növlərindən formativ və summativ qiymətləndirmələrin təhlili təqdim olunur. Burada qiymətləndirmənin növləri, eyni zamanda formativ və summativ qiymətləndirmənin məqsəd və vəzifələri, faydaları və s. haqqında məlumat verilmişdir. Həmçinin, qiymətləndirmələrin əsaslandığı nəzəriyyələr haqqında da məlumatlar yer almaqdadır. Qiymətləndirmənin bu növlərinin araşdırılmasının müasir təhsil sahəsində tətbiqinin müsbət və çatışmayan cəhətlərinin müəyyənləşdirilməsində rolu böyükdür. Qiymətləndirmələrdən istifadənin təlim nəticələrini əhəmiyyətli dərəcədə yaxşılaşdırdığı göstərilmişdir. Çoxsaylı tədqiqatlar göstərmişdir ki, formativ qiymətləndirmələr daha dərinlən öyrənməyə kömək edir, tələbələrin fəallığını artırır və ümumi akademik nailiyyətləri artırır. Əsas üstünlüklərdən biri odur ki, öyrənmə boşluqları köklənməmişdən əvvəl müəyyən edilə və düzəldilə bilər. Müntəzəm qiymətləndirmələr müəllimlərə dərhal rəy bildirməyə, yanlış təsəvvürləri aradan qaldırmağa və lazım gəldikdə konsepsiyaları möhkəmləndirməyə imkan verir. Məqalədə bu qiymətləndirmələrdən istifadənin təlim nəticələrinə təsiri də təhlil edilmişdir.

Açar sözlər: təhsil strategiyaları, müəllim hazırlığı, qiymətləndirmələr, formativ qiymətləndirmə, summativ qiymətləndirmə.

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Məqalə tarixçəsi: göndərilib – 28.02.2025; qəbul edilib – 19.03.2025. CC BY 4.0. Müəlliflər açıq şəkildə öz əsərlərinin müəlliflik hüquqlarını təsdiq edir və jurnala Creative Commons Attribution 4.0 International (CC BY 4.0) lisenziyası çərçivəsində ilk nəşr hüququnu verirlər. Bu lisenziya, əsərin bu jurnalda yayımlandığı və orijinal müəlliflərə istinad edildiyi halda, onun sərbəst şəkildə digər şəxslər tərəfindən yayılmasına icazə verir.

Introduction / Giriş

School-based assessments refer to the various methods and techniques used in the classroom to measure student's progress and achievement. These assessments can be broadly divided into three types: formative, summative, and diagnostic. All three serve different purposes and contribute differently to the educational process.

- Formative assessments are conducted during the learning process and provide continuous feedback to students and teachers. These assessments provide immediate feedback to both students and teachers, allowing for real-time adjustments to teaching methods and learning strategies. Some experts argue that formative approaches should be part of a comprehensive system, where all components work together to facilitate learning [Bennett, 2011].

- Summative assessments are usually administered at the end of a unit or term, aiming to assess students' overall performance and mastery of specific content or skills.

- Diagnostic assessments are administered before the learning process begins, usually at the start of a course or unit, to identify students' knowledge, skills, and learning gaps.

Each of these types of assessments plays a crucial role in the ongoing improvement process by providing data that can be analyzed and used to enhance teaching practices, adjust learning objectives, and meet student needs.

Main part / Əsas hissə

Formative assessments, as mentioned earlier, are conducted during the learning process, primarily aimed at monitoring student progress and providing feedback that guides further instruction. They are usually low-scoring and include a variety of activities such as quizzes, class discussions, assignments, and projects. These assessments are designed to provide immediate feedback to both students and teachers, allowing them to adjust their teaching and learning strategies. For example, a teacher might use formative assessment to measure understanding of a specific concept, such as a short quiz or a group discussion. This real-time assessment allows students to continuously improve and allows teachers to identify learning gaps before they become more significant problems.

Formative assessments are particularly useful in creating a personalized learning environment that responds to students' needs. They offer opportunities for differentiation, allowing instructional methods to be tailored to the specific needs

of students. In addition, formative assessments help students develop self-regulation skills as they reflect on their own performance and learning progress. Formative assessments serve as a primary tool for evaluating and improving student learning. Among the various forms of assessment, formative assessment plays a unique and vital role. Unlike summative assessments, which assess students at the end of a learning period, formative assessments are ongoing processes that monitor student progress throughout the learning. These research studies examine the nature of formative assessment, its methodologies, theoretical foundations, and impact on the learning process, all of which contribute to its importance in school-based assessment frameworks. Formative assessment refers to a wide range of tools and techniques that teachers use to gather feedback on student understanding, skills, and performance. These assessments are typically low-stakes, offering actionable insights for both students and instructors to improve learning outcomes. The purpose of formative assessment is not to assign final grades, but to inform instruction, guide student learning, and identify strengths and weaknesses. Key characteristics of formative assessment include its timing, as it occurs during the learning process rather than at the end, and its focus on reinforcing learning instead of evaluating it. Examples of formative assessment methods include quizzes, surveys, class discussions, peer and self-assessments, homework, and written reflections. These methods allow teachers to regularly monitor progress and adapt teaching strategies to students' evolving needs.

Formative assessment draws from various educational and psychological theories, notably constructivist learning, theories and feedback mechanisms. Constructivist theories, notably those by Lev Vygotsky and Jean Piaget, emphasize the active role of learners in constructing their own understandings. From this perspective, formative assessment serves as a tool for knowledge construction through regular feedback and self-reflection.

Vygotsky's "Zone of Proximal Development" is crucial in understanding formative assessment. According to this theory, there is a gap between what learners can do independently and what they can achieve with guidance [Vygotsky, 1991]. Formative assessment helps to determine where a learner is in this zone, allowing teachers to provide targeted support and support that is slightly above the learner's current level of understanding. This concept encourages learners to expand their abilities, fostering deeper knowledge and skill development [Zaret-sky, 2007].

Formative assessment also relies on feedback loops. In this context, feedback is a central component of formative assessment, which is a dynamic process by which students learn about their own performance, reflect on it, and adjust their learning strategies accordingly. According to John Hattie and Helen Timperley's

feedback model, effective feedback should answer three key questions: Where am I going? How am I doing? and Where should I go next? These questions form the basis of the effectiveness of formative assessment, guiding a cycle of iterative assessment and improvement [Hattie, 2008].

Formative assessment is not a one-size-fits-all approach, but a flexible strategy tailored to the needs of individual students. Instead, it incorporates a wide range of methods and tools that can be adapted to specific classroom settings. Some of the key components of formative assessment include:

1. Regular monitoring of student progress: Teachers use various tools, from quizzes to oral inquiry, to gather continuous feedback. This helps identify misconceptions early, allowing for prompt corrective interventions.

2. Feedback: Providing timely, specific, and actionable feedback is essential in formative assessment. Feedback helps students understand their current level of knowledge and guides them to improve their skills. Feedback can range from teacher comments to peer and self-assessment.

3. Active student engagement: Formative assessments encourage students to reflect on their learning through self-assessment or peer feedback. This active engagement fosters metacognition as students think critically about their progress and improvement.

4. Adaptation of instruction: Based on the information gathered from formative assessments, teachers adapt their instructional strategies to address learning gaps or reinforce areas of strength. This adaptation is key to ensuring that all students are supported in their learning journeys.

5. Diverse assessment tools: Formative assessments use various forms to accommodate different learning styles, such as written tests, oral presentations, group projects, digital tools, and informal observations. Using multiple tools ensures a comprehensive and inclusive assessment process.

Formative assessment also boosts student motivation. Regular assessments encourage students to take more responsibility for their learning. The feedback helps students set achievable goals, track progress and build self-efficacy and ownership over their learning. Research by Black and Williams shows that formative assessment, especially when used consistently with quality feedback, can result in significant improvements in student performance [Hopfenbeck, 2018].

Formative assessment also promotes a more personalized approach to teaching. In classrooms with diverse learning needs, formative assessment allows teachers to tailor their teaching strategies to individual differences. Formative assessment promotes inclusion by offering individualized support, ensuring every student reaches their potential.

Despite its advantages, implementing formative assessment poses several

challenges. A major challenge is the time and resources needed to conduct regular assessments and provide meaningful feedback. Teachers often struggle to balance continuous assessment with curriculum demands and classroom management.

Formative assessments are most effective when well-designed and aligned with instructional objectives. Poorly designed assessments that do not address key learning outcomes fail to provide valuable insights. Therefore, careful planning and alignment with educational standards are essential for formative assessments to produce meaningful results.

Another challenge is student overload. In environments with frequent assessments, especially those framed as performance evaluations rather than opportunities for improvement, students may feel overwhelmed. Clear communication about the purpose of formative assessment is essential to reduce anxiety and ensure that students view these assessments as rewarding rather than stressful. Formative assessment plays a critical role in improving education by providing ongoing feedback that informs teaching and supports student learning. Rooted in constructivist theory and focused on feedback loops, formative assessment helps students develop critical thinking skills, fosters a growth mindset, and encourages personalized learning experiences. Despite its challenges in implementation, formative assessment offers significant benefits, including improving student performance and increasing motivation, making it an essential tool in modern education. When used effectively, formative assessment fosters a more dynamic, responsive, and student-centered approach to learning, making it a vital element in modern educational frameworks.

Summative assessments, are typically administered at the end of a learning period. They serve to assess the overall effectiveness of instruction. These assessments carry significant weight and have considerable consequences for students' grades and academic standing. Examples include final exams, end-of-term projects, standardized tests, and summative essays. Summative assessments are used to assess whether students have achieved the learning objectives stated at the beginning of a course or curriculum.

Although summative assessments offer a snapshot of student achievement at a specific point, they do not provide the same level of continuous feedback as formative assessments. However, they are essential for validating students' academic abilities to ensure that students meet the standards required to progress to the next level of education. They also serve as tools for teachers, administrators, and policymakers to evaluate the effectiveness of the education system as a whole. Assessments play a crucial role in shaping teaching strategies, guiding student learning, and determining educational outcomes in education. One prominent type

of assessment is summative assessment, which evaluates student learning, skills, and academic achievement at the end of an instructional period. Formative assessments monitor student progress throughout the learning process, while summative assessments are typically conducted at the end of a unit, term, or course to evaluate whether instructional objectives have been met. Research on this topic has focused on the nature of summative assessment and its theoretical foundations. It also examines its various forms, importance, and the scientific justification for application in education.

Summative assessment refers to the process of measuring student learning, skills, and academic achievement at the end of an instructional period. The primary purpose of summative assessment is to provide an overall view of the extent to which students have achieved predetermined learning objectives. In contrast to formative assessment, which is continuous and feedback oriented, summative assessments are high-stakes evaluations that influence final grades and other academic decisions.

Common forms of summative assessment include final exams, standardized tests, midterm exams, end-of-term projects, and presentations, and other types of evaluations. These assessments are intended to evaluate the general knowledge or skills that students have acquired during their education. They are usually designed to test a broad range of content and competencies, offering a clear indication of student proficiency at a given point in time.

Summative assessment is backed by various educational theories, especially those related to accountability, motivation, and the measurement of learning outcomes. Theories such as behaviorism and measurement theory form the foundation for the design and use of summative assessments, providing a scientific basis for their role in the educational process.

From a behaviorist perspective, summative assessment is grounded in the idea that learning can be observed through specific, measurable behaviors. Behaviorist theories, especially those by B.F. Skinner, emphasize that learning outcomes (i.e., the acquisition of specific skills or knowledge) can be measured through standardized testing. In this context, summative assessments serve as a means of confirming whether students have successfully acquired the behaviors or knowledge expected of them.

Behaviorism also supports using summative assessments as a form of reinforcement. If students perform well on summative assessments, they receive positive reinforcement through grades, which strengthens their motivation to continue learning. In this sense, summative assessments provide external validation of the educational process and contribute to measuring academic success [Baulo, 2019].

Measurement theory offers a more technical and scientific foundation for summative assessments. This theory focuses on creating valid and reliable tools for assessing educational outcomes. Summative assessments, particularly standardized tests, are designed with the principles of validity (consistent results) and reliability (accurate measurement). Classical test theory and item response theory suggest that summative assessments should be constructed to accurately reflect the skills or knowledge they intend to measure and ensure that the results can be generalized to other contexts.

Applying measurement theory to summative assessments ensures that they are fair, equitable, and consistent across diverse student groups. It ensures that summative assessments are unbiased, provide an objective measure of student learning, and accurately reflect academic performance.

Summative assessments come in a variety of forms, each designed to assess different aspects of student learning. Some of the most common forms of summative assessments include the following:

1. Final exams are the most traditional form of summative assessment, often evaluating students' mastery of all course content. Final exams can be written (e.g., multiple-choice, essay questions) or practical (e.g., oral exams, practical assignments) and are commonly used in various academic subjects.

2. Standardized tests are designed to measure student performance against a common standard across large groups of students. Examples include national or state-level exams such as the SAT, ACT, or GCSE. Standardized tests are commonly used in both primary and secondary education, providing a uniform measure of achievement.

3. End-of-term projects require students to demonstrate their understanding of course material through research, presentations, or creative work. Projects assess critical thinking, problem-solving, and the ability to synthesize and apply knowledge.

4. Portfolios are collection of students' work compiled over time, providing a comprehensive picture of their learning journey. Summative portfolios are commonly used in creative subjects like art, design, and writing, where students showcase their skills through a series of projects or assignments.

5. Cumulative essays or papers require students to produce in-depth written work on a specific topic, demonstrating their ability to research, analyze, and present complex ideas. Cumulative essays are also common in higher education serving as a method for assessing students' critical thinking and writing skills.

Summative assessment is important in the educational system due to its role in determining learning outcomes, ensuring accountability, and shaping future educational decisions. Several factors contribute to its significance and effectiveness.

Summative assessment is a key method for evaluating instruction effectiveness and determining whether students have mastered the learning objectives. Summative assessments provide a comprehensive picture of student achievement by assessing a wide range of knowledge and skills. The results help teachers and schools determine whether their teaching methods are successful and whether any curriculum adjustments are necessary. Summative assessment hold students, teachers, and educational institutions accountable. For students, these assessments reflect their academic performance and determine their progress to the next level of education. For teachers and schools, summative assessments provide insights into student achievement that can be used for performance evaluation, curriculum development, and accreditation processes. Summative assessments also contribute to a standardized approach to education, ensuring all students, regardless of their background or location, are held to the same academic standards. Standardized tests provide policymakers with data to evaluate and compare education systems across regions or countries. The results of summative assessments often have significant consequences for both students and teachers. For students, high-stakes summative assessments, such as final exams or standardized tests, determine graduation, college admissions, and career paths. For teachers, the results of summative assessments help inform teaching practices, curriculum planning, and professional development.

The results of summative assessment also play a role in educational research and policy. Data from large-scale assessments, such as national examinations, can identify trends in student achievement and highlight areas for improvement. This data-driven approach ensures that education systems are responsive to the needs of students and are working towards continuous improvement. Despite its widespread use, summative assessment has been criticized for several reasons. One significant issue is its high-stakes nature, which can increase pressure and anxiety among students. In some cases, students' entire academic future can depend on a single exam, which can create undue stress and hinder learning. Additionally, summative assessments, especially standardized tests, have been criticized for focusing narrowly on limited knowledge and skills, such as rote memorization, rather than promoting critical thinking, creativity, and problem-solving. This limitation can undermine the development of holistic learning and may not accurately reflect students' true abilities. Finally, it is important to note that summative assessments may not account for the diversity of students' learning styles. Traditional examinations often favor students who excel in written tests, disadvantaging students with diverse learning preferences.

Summative assessment is a crucial component of the school-wide assessment process, serving as the primary method to assess student achievement, measure

learning outcomes, and ensure accountability. Based on behavioral and measurement theories, summative assessments provide valuable data that informs educational decisions and shapes the future of students and the education system. While summative assessments are vital for determining academic success, it is important to consider their limitations, particularly in terms of student stress and the narrow scope of knowledge they often assess. To address these concerns, it is important to balance summative assessments with other forms of assessment, such as formative assessment, for a more comprehensive understanding of student learning and development [Glickman, 2009].

Another important form of school-wide assessment is diagnostic assessment. This assessment is typically administered before the start of a new unit or course to evaluate students' prior knowledge and skills. Diagnostic assessments help teachers identify students' strengths and weaknesses, allowing them to plan appropriate interventions and instructional strategies. These assessments may include pre-tests or informal surveys, providing a basis for understanding students' readiness to engage with new content [Ahmadov, 2014].

Effective assessment practices key to understanding and improving student learning outcomes. While summative and formative assessments are common in general education, diagnostic assessments serve as a key yet often underused tool for enhancing instructional practices and supporting student success. Diagnostic assessments identify students' pre-existing knowledge, skills, and learning needs before instruction begins or in the early stages of a unit.

Conclusion / Nəticə

School-based assessments play a critical role in enhancing the educational experience for both students and teachers. They contribute to the educational process in a variety of ways, including providing feedback, identifying learning gaps, and improving teaching practices.

One of the most important advantages of in-school assessment is its ability to provide students with timely and specific feedback. Formative assessments, in particular, help students understand their mastery of a subject. Feedback helps students identify their strengths and areas for improvement, allowing them to take proactive steps to enhance performance. When assessments are regularly integrated into learning, students manage their learning, build self-confidence, and become more independent learners. Additionally, constructive feedback delivered supportively fosters a growth mindset, encouraging students to view mistakes as learning opportunities. This can significantly improve student motivation and engagement in education. In-school assessments are also crucial for identifying

learning gaps early in the teaching process. By regularly assessing student understanding, teachers can identify which students are struggling and which concepts need further clarification or reinforcement. This early identification allows targeted interventions, such as tutoring, extra practice, or differentiated instruction, helping close learning gaps before they grow too large. Closing learning gaps is especially important in diverse classrooms where students may have different levels of prior knowledge, skills, and learning styles. Through in-school assessments, educators can ensure that all students have the opportunity to succeed, promoting equity and inclusion in the classroom. In-school assessments also provide valuable feedback for teachers, helping evaluate the effectiveness of their teaching methods and make necessary adjustments. If many students perform poorly on an assessment, it may indicate that teaching methods or materials need revision. Teachers can use assessment data to reflect on their teaching strategies, test the effectiveness of different teaching tools, and adapt to the diverse needs of their students. In addition, assessments encourage a student-centered teaching approach, where teachers continually respond to student needs. By engaging with assessment data, teachers can create more dynamic and effective learning environments that prioritize student growth.

Relevance of the article: School-based assessments play a critical role in the educational process, shaping how instruction is delivered, how student learning is monitored, and how academic progress is assessed. Formative and summative assessments provide feedback that guides instructional decisions and promotes better teaching practices.

Scientific innovation: As evidence-based teaching grows in focus, the use of assessments to improve teaching practices has gained scholarly attention. Educational research explores how school-based assessments can improve teaching practices when used appropriately, focusing on the relationship between assessment and instruction, data-driven decision-making, and using formative and diagnostic assessments to personalize learning.

Practical significance: Primary school teachers, subject teachers working in primary education, and experts conducting research on teacher training can benefit from the findings of this study.

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