# Assessment and Practice in Educational Sciences

# Contextual Factors Influencing the Implementation of Self-Assessment in Primary Schools

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## ABSTRACT

This study aimed to explore the contextual factors that influence the implementation of self-assessment practices in primary school classrooms from the perspective of educators. A qualitative research design was employed to gain an in-depth understanding of teachers' and administrators' experiences with self-assessment. Data were collected through semi-structured interviews with 19 primary school educators from Tehran, selected via purposive sampling to ensure relevance and diversity of perspectives. Interviews were conducted until theoretical saturation was achieved. All interviews were audio-recorded, transcribed verbatim, and analyzed using thematic analysis, facilitated by NVivo software. The analysis followed an inductive coding process involving open, axial, and selective coding to identify recurrent patterns and conceptual themes across participants' narratives. The data analysis revealed three major themes: (1) school-level structural conditions, including leadership support, resource availability, policy coherence, and workload; (2) teacher-related beliefs and practices, such as pedagogical style, assessment literacy, and perceptions of student readiness; and (3) student-centered environmental factors, including classroom culture, peer dynamics, and home-school collaboration. Teachers highlighted both enablers (e.g., professional development and administrative encouragement) and barriers (e.g., large class sizes, conceptual confusion, and high-stakes testing culture) that shaped their implementation of self-assessment. Variations in understanding and execution of self-assessment reflected differing levels of training, motivation, and support systems. The successful implementation of self-assessment in primary schools is highly dependent on contextual variables at the institutional, pedagogical, and interpersonal levels. For self-assessment to function as an effective formative tool, comprehensive efforts must be made to address structural limitations, build assessment literacy, and foster supportive classroom cultures. Policymakers, school leaders, and teacher educators must collaborate to align practice with pedagogical intent.

**Keywords:** Self-assessment, formative assessment, primary education, contextual factors, teacher beliefs, qualitative research, Tehran, assessment literacy, classroom culture, implementation barriers.

## Introduction

In recent decades, educational paradigms have increasingly shifted from teacher-centered instruction toward learner-centered approaches that emphasize active student engagement, metacognitive development, and formative feedback. One of the central tools in this pedagogical transformation is self-assessment, a process wherein learners evaluate their own learning, progress, or performance based on set criteria, often as part of a broader formative assessment strategy (Panadero et al., 2016). Self-assessment is not merely a reflection tool—it is a metacognitive practice that enhances students' awareness of their learning process, promotes goal-setting, and fosters autonomy and self-regulation (Andrade, 2019). Particularly in primary education,

where foundational learning habits are formed, the implementation of self-assessment is considered critical for cultivating lifelong learners capable of independent and reflective thinking (Yan & Brown, 2021).

Despite its well-documented benefits, the actual integration of self-assessment into daily classroom practice remains limited and uneven, especially in primary school settings (Boud & Falchikov, 2006). While educational policy documents and curricular guidelines in many countries advocate for student involvement in assessment, including self-assessment, classroom-level implementation is often inconsistent, and its pedagogical potential is underrealized (Andrade & Brookhart, 2020). The discrepancy between policy rhetoric and instructional reality has prompted scholars to investigate the underlying contextual factors—both enabling and constraining—that influence how self-assessment is perceived, understood, and operationalized by educators (Harris & Brown, 2018).

Understanding the contextual landscape of self-assessment is essential because it is not a neutral, one-size-fits-all technique. It is deeply embedded in the institutional, cultural, and interpersonal fabric of the classroom and the broader school system (Klenowski, 2009). For example, research has shown that teacher beliefs about students' developmental readiness can significantly shape the extent to which self-assessment is adopted in early education (Brown & Harris, 2013). In contexts where students are perceived as incapable of reflective thinking, teachers may be reluctant to implement self-assessment practices, regardless of training or curricular expectations. Similarly, the degree of administrative support, the coherence of school-wide assessment policies, and the availability of resources such as time, professional development, and teaching materials have been consistently identified as influencing implementation fidelity (Lee et al., 2019).

The concept of formative assessment, of which self-assessment is a subset, has itself undergone considerable evolution. As defined by Black and Wiliam (2009), formative assessment involves eliciting evidence of learning during the instructional process to inform teaching and improve student outcomes. Within this model, self-assessment is not an ancillary activity but a central component that contributes to feedback loops, encourages student ownership, and enhances motivation (Wiliam, 2011). However, for self-assessment to serve its intended function, it must be properly scaffolded and situated within a supportive learning environment—conditions that are not always present in practice.

Research also suggests that a significant barrier to effective implementation lies in the assessment literacy of educators. Assessment literacy encompasses the knowledge and skills required to design, interpret, and act upon various forms of assessment (Brookhart, 2011). When teachers lack a clear understanding of what constitutes effective self-assessment, or how it differs from peer assessment, grading, or simple reflection, the practice can become diluted or misapplied (Panadero et al., 2016). Moreover, there is often a tension between formative goals and summative accountability pressures, especially in educational systems that prioritize standardized testing. This tension can disincentivize teachers from investing time in activities such as self-assessment, which may not directly contribute to external evaluation metrics (Havnes et al., 2012).

Cultural and systemic factors also play a significant role. In educational contexts where authority and expertise are traditionally vested in teachers, the idea of students evaluating their own work may be seen as undermining professional authority or classroom discipline (Carless, 2007). Particularly in more hierarchical or exam-driven educational cultures, self-assessment may be viewed with skepticism, both by teachers and by parents who are concerned with grades and performance rather than process and reflection (Yan, 2018). These sociocultural dynamics must be carefully considered when designing professional development programs or policy interventions aimed at promoting self-assessment.

In addition, school leadership and institutional culture are widely recognized as critical in shaping teachers' assessment practices. Principals who actively promote a formative assessment culture, encourage experimentation, and provide structured opportunities for reflection can create a climate conducive to the adoption of self-assessment (Torrance, 2012). Conversely, a lack of leadership support or misalignment between school goals and assessment practices can stifle innovation. Structural

constraints such as large class sizes, insufficient time, and administrative workload further exacerbate the difficulty of implementing self-assessment in a meaningful and sustainable way (Brown & Harris, 2013).

While the literature has extensively examined individual teacher attitudes and general barriers to formative assessment, fewer studies have focused specifically on the interplay of contextual factors that affect self-assessment in primary schools. Most existing research tends to be situated in secondary or higher education, where students are assumed to have more advanced metacognitive skills (Andrade, 2019). Primary education, with its unique developmental considerations and institutional characteristics, presents distinct challenges that warrant targeted investigation. Furthermore, there is a scarcity of research from non-Western contexts, including Iran, where localized cultural, curricular, and policy factors may significantly shape implementation realities. Addressing this gap is vital for generating context-sensitive insights and informing practice and policy in culturally relevant ways.

The current study seeks to explore the contextual factors that influence the implementation of self-assessment in primary schools in Tehran. Using a qualitative methodology based on semi-structured interviews with teachers and administrators, the study aims to uncover the structural, pedagogical, and environmental conditions that either facilitate or hinder the use of self-assessment in classroom practice. By focusing on the perspectives of practitioners directly involved in primary education, the research contributes to a nuanced understanding of how self-assessment operates within real-world constraints and possibilities. Such insights are essential for designing effective interventions, professional development programs, and assessment frameworks that are responsive to the lived realities of educators and learners alike.

## Methods and Materials

### Study Design and Participants

This study employed a qualitative research design to explore the contextual factors that influence the implementation of self-assessment practices in primary school settings. The research was conducted using an interpretive paradigm, which allowed for an in-depth examination of participants' subjective experiences and perspectives in relation to the educational contexts in which self-assessment is practiced. The aim was to understand how school-level, classroom-level, and broader systemic factors shape teachers' and administrators' engagement with self-assessment strategies.

The research adopted a purposive sampling strategy to recruit participants with direct experience and insight into the application of self-assessment in primary education. A total of 19 participants were selected, including classroom teachers, school principals, and educational support staff, all of whom were working in primary schools located in Tehran. Participants were chosen based on their involvement in assessment planning, implementation, or pedagogical decision-making related to student self-assessment. The sample included both male and female educators, representing a range of years of teaching experience and school types (public and private). Interviews continued until theoretical saturation was reached—that is, when no new themes or insights were emerging from subsequent interviews.

### Data Collection

Data were collected through semi-structured, face-to-face interviews conducted in Persian, each lasting approximately 45 to 60 minutes. The interview guide included open-ended questions designed to elicit detailed responses about participants' perceptions of enabling and constraining contextual factors in the implementation of self-assessment practices. Follow-up prompts were used to clarify or deepen understanding of specific points raised. All interviews were audio-recorded with participants' informed consent and subsequently transcribed verbatim for analysis.

## Data analysis

Thematic analysis was used to interpret the qualitative data, facilitated by NVivo software (version 12) to assist with data organization, coding, and retrieval. The analysis followed an inductive approach, beginning with open coding of the interview transcripts to identify key concepts and patterns. These initial codes were then grouped into axial categories based on conceptual similarities, and finally refined into overarching themes that captured the essence of the contextual influences described by participants. Coding and theme development were carried out iteratively, with continuous comparison across interviews to ensure consistency and saturation. To enhance the credibility of the findings, peer debriefing and member checking were employed during the analysis phase.

## Findings and Results

Thematic analysis of the interview data yielded three major themes: school-level structural conditions, teacher-related beliefs and practices, and student-centered environmental factors. Each theme comprises multiple subcategories that reflect key contextual influences on the implementation of self-assessment in primary schools.

Theme 1: School-Level Structural Conditions

Leadership Support emerged as a foundational element. Participants repeatedly emphasized that support from school leadership significantly affected their willingness and ability to engage in self-assessment practices. One teacher noted, "When the principal supports us and gives us room to try new assessment methods, we feel more confident to take risks with self-assessment." In schools where administrators encouraged reflective teaching, teachers described a more open culture of experimentation and feedback.

Resource Availability was another crucial factor. Many educators expressed concerns over inadequate teaching materials, digital tools, and especially time constraints. A participant shared, "Self-assessment needs time, both during class and outside. We don't even have enough time to finish the syllabus." The lack of access to basic resources was cited as a persistent barrier across both public and private schools.

The Assessment Policy Coherence subcategory revealed tensions between national curriculum mandates and local implementation. Several teachers reported that summative assessment pressures from education authorities hindered their use of formative practices. One educator explained, "We are expected to do formative assessment, but in the end, everything is judged by standardized exams. It's contradictory." This policy-practice gap often led to confusion and selective compliance.

Professional Development was recognized as a facilitating factor. Teachers who had attended workshops or had access to peer-learning groups reported better understanding and integration of self-assessment methods. As one teacher put it, "After attending a training, I began to see how self-assessment could help students become more aware of their own progress." The quality and frequency of training opportunities were highly variable across schools.

The Administrative Workload was identified as a significant hindrance. Participants reported excessive paperwork and responsibilities that left little time for innovation. "We are so overloaded with administrative duties that there's hardly time for thoughtful assessment," remarked a frustrated teacher. Many participants echoed this concern, noting that meaningful self-assessment requires time for reflection, feedback, and adjustment.

Finally, Class Size and Structure influenced teachers' ability to facilitate individualized feedback and self-assessment. Overcrowded classrooms were described as incompatible with personalized assessment practices. A participant observed, "With more than 30 students, how can I really help each child assess themselves properly?" Teachers indicated that classroom composition and size directly impacted their instructional strategies.

Theme 2: Teacher-Related Beliefs and Practices

Beliefs about Student Capacity affected how teachers approached self-assessment. Some educators expressed doubts about whether young students could engage in meaningful self-evaluation. "I think they are too young to understand what they are doing when you ask them to assess themselves," said one teacher. This belief limited the integration of self-assessment into daily routines.

The Understanding of Self-Assessment varied widely. Several participants conflated it with teacher grading or peer feedback, indicating conceptual confusion. One teacher admitted, "Honestly, I'm not exactly sure what self-assessment should look like in practice." This lack of clarity resulted in inconsistent implementation.

Pedagogical Style emerged as a deeply embedded influence. Teachers who favored direct instruction or teacher-led evaluation found it difficult to relinquish control. One participant commented, "I prefer to keep control of the assessment process. When students assess themselves, I feel things might go wrong." In such cases, self-assessment was seen as a disruption to traditional classroom order.

Motivation and Attitude also shaped teachers' engagement. Resistance to change and fear of failure were cited as psychological barriers. A teacher confessed, "I don't want to try something new and then have it backfire. We are judged by our students' results." This apprehension was particularly strong in high-stakes school environments.

The role of Reflective Practice was mixed. Some teachers regularly reflected on their teaching and saw value in self-assessment as a tool for student reflection. As one participant said, "I keep a teaching journal and I encourage my students to do something similar in their own way." Others, however, had no habitual self-reflection routines and saw little relevance in fostering such habits among their students.

Prior Experience played a mediating role. Teachers who had tried self-assessment in the past—whether successfully or not—were influenced by those experiences. One noted, "I tried it a few years ago but the students just wrote random things. It didn't seem useful." Positive experiences, however, encouraged continued use and adaptation.

Finally, Assessment Literacy differentiated confident implementers from hesitant ones. Participants with a strong foundation in formative assessment understood how to scaffold self-assessment tasks effectively. One remarked, "You need to teach them how to assess. It's not automatic. That's what we learned in the workshop." A gap in assessment literacy often resulted in vague or ineffective practice.

Theme 3: Student-Centered Environmental Factors

Student Readiness was a frequently mentioned challenge. Teachers reported that some students lacked the emotional maturity or cognitive skills to engage in self-assessment meaningfully. A participant explained, "Some kids just circle 'excellent' on every item because they don't know how to judge themselves." Age, prior exposure, and individual traits all influenced readiness.

The Home-School Collaboration subcategory revealed the importance of parental reinforcement. Teachers noted that students whose parents supported self-monitoring at home were more responsive. "When parents talk to kids about learning at home, those students do better with self-assessment," one teacher observed. Conversely, mismatches in expectations led to confusion or resistance.

Peer Dynamics influenced how students engaged with self-assessment. Some teachers observed that students mimicked peers or were influenced by classroom competitiveness. "They look at their friend's form and copy it. Or they rate themselves higher just to keep up," said one participant. These social dynamics could either support or undermine self-reflection.

Classroom Culture played a crucial role. Environments marked by psychological safety and open dialogue enabled deeper reflection. One teacher shared, "In my class, we always talk about our mistakes. That helps when we do self-assessment because kids feel safe." In contrast, rigid or punitive environments discouraged honesty.

Finally, Motivation for Self-Assessment emerged as an important condition. Intrinsically motivated students were more engaged, while those accustomed to external rewards were often indifferent. "Some students really want to know how they're doing, others just want the grade," explained a teacher. Teachers noted that cultivating a growth mindset was essential for sustaining motivation.

## Discussion and Conclusion

The findings of this study illuminate the complex interplay of structural, pedagogical, and environmental factors that influence the implementation of self-assessment in primary schools. Drawing on qualitative data from 19 educators in Tehran, the study reveals that while many teachers acknowledge the potential benefits of self-assessment, its integration into daily practice is often hindered by contextual constraints. The results resonate with prior research on formative assessment and extend the literature by offering a nuanced, locally grounded perspective on implementation challenges in primary education.

One of the most prominent themes identified in this study is the importance of leadership support at the school level. Participants highlighted that when school principals or administrators actively endorse formative assessment practices, including self-assessment, teachers feel empowered and supported in their efforts. This aligns with prior research emphasizing the role of school leadership in fostering a culture of reflective learning and pedagogical innovation (Torrance, 2012). Studies by Lee, Mak, and Yuan (2019) similarly found that administrative encouragement plays a pivotal role in sustaining assessment for learning in primary classrooms. The absence of such leadership often results in a lack of coherence between school-level expectations and classroom practice.

Resource availability emerged as a major concern, particularly in relation to time, teaching materials, and access to digital tools. Participants expressed frustration over limited instructional time, which is often consumed by mandated curricular content and administrative duties. This finding echoes the work of Havnes et al. (2012), who noted that time constraints are among the most cited barriers to formative assessment implementation. Inadequate professional resources also mirror the global trend reported by Andrade and Brookhart (2020), in which teachers often lack access to tailored materials or digital platforms to facilitate student self-assessment, especially in resource-limited educational settings.

Another significant barrier identified was the misalignment between assessment policy and classroom realities. Although national or district-level curricula may promote self-assessment as a formative strategy, teachers reported that external accountability systems—such as high-stakes examinations—undermine their ability to engage in student-centered assessment. This policy-practice tension is well documented in the literature. Black and Wiliam (2009) have criticized the dominance of summative cultures in shaping classroom assessment, warning that without structural reform, formative methods like self-assessment may remain peripheral or tokenistic.

The study also highlights the pivotal role of professional development. Teachers who had received targeted training on assessment literacy reported greater clarity about the purpose and implementation of self-assessment. This supports Brookhart's (2011) assertion that effective assessment hinges on educators' capacity to design and interpret formative tasks meaningfully. However, the variability in training access across participants reflects an ongoing gap in equitable professional support. Panadero et al. (2016) similarly noted that a lack of clear, scaffolded instruction on self-assessment contributes to conceptual confusion and inconsistent application in the classroom.

The administrative workload faced by teachers further complicated the picture. Participants described being overwhelmed with bureaucratic tasks that left little room for instructional innovation. This finding corroborates Torrance's (2012) critique of "conformative assessment," where institutional priorities focus on compliance rather than student growth, leaving minimal time or incentive for reflective practices like self-assessment. In this study, teachers perceived the task of implementing self-assessment as a desirable but logistically burdensome responsibility.

In terms of classroom-level conditions, class size and structure significantly impacted teachers' ability to personalize self-assessment practices. Overcrowded classrooms were frequently mentioned as a deterrent to effective feedback and individualized monitoring. This finding is consistent with studies by Harris and Brown (2018), which demonstrated that smaller class sizes and manageable student-to-teacher ratios facilitate more active and meaningful engagement with formative assessment tools, including self-evaluation.

The second major theme—teacher-related beliefs and practices—revealed how personal attitudes, professional identity, and pedagogical orientation mediate the use of self-assessment. Teachers who held doubts about students' developmental readiness were less likely to use self-assessment, often citing students' age and perceived immaturity. This perception, although understandable in primary education contexts, has been challenged by research showing that even young learners can engage meaningfully in self-assessment when given appropriate scaffolding (Andrade, 2019; Yan & Brown, 2021). Such beliefs suggest the need to address developmental misconceptions in teacher training programs.

Conceptual misunderstandings of self-assessment were also apparent. Some participants equated it with grading or peer assessment, while others lacked clarity on its purpose or execution. This finding resonates with Panadero et al. (2016), who argue that the successful use of self-assessment requires a robust understanding of its formative intent, as well as a clear distinction from summative processes. Without such conceptual clarity, teachers may implement self-assessment superficially, reducing it to a checklist or redundant activity.

Teachers' pedagogical styles—particularly preferences for teacher-centered instruction—emerged as an impediment to integrating self-assessment into regular practice. Educators who valued control and directive teaching expressed concern that self-assessment could lead to classroom disorder or misjudgment by students. Carless (2007) discusses how traditional power dynamics in classrooms can inhibit learner-centered assessment strategies, especially in cultures where authority and discipline are highly valued. Thus, any reform effort must also address these deep-seated pedagogical orientations.

In addition, teachers' motivational stance and prior experience influenced their adoption of self-assessment. Participants who had positive previous encounters with the method were more likely to embrace it again, while those who experienced confusion or student disengagement became skeptical. This echoes the findings of Brown and Harris (2013), who emphasize that successful implementation requires not only technical knowledge but also psychological readiness and resilience.

Finally, assessment literacy emerged as a decisive factor differentiating effective implementers from hesitant adopters. Teachers who could design clear, student-friendly rubrics and embed reflection into learning tasks demonstrated more success with self-assessment. This confirms Brookhart's (2011) claim that teacher competence in designing and interpreting formative tools is essential for meaningful student involvement.

The third major theme focused on student-centered environmental factors, beginning with student readiness. While some teachers viewed primary students as too young for self-assessment, others recognized the importance of age-appropriate scaffolding. This variation supports the view of Yan and Brown (2021), who argue that primary students can engage in self-regulation when supported by clear instructions, consistent modeling, and feedback loops. However, the lack of uniform beliefs among teachers suggests the need for age-specific professional development resources.

Home-school collaboration also influenced implementation. Students whose families encouraged self-reflection and learning autonomy were perceived as more receptive to self-assessment. This finding aligns with Andrade and Brookhart (2020), who emphasize that formative assessment is most effective when reinforced across learning environments, including the home.

Classroom peer dynamics played a complex role. While peer modeling and social interaction could support reflective behaviors, competitiveness or conformity also led some students to falsify or exaggerate their self-evaluations. Panadero et al. (2016) note that social comparison can distort the integrity of self-assessment unless properly managed through structured norms and feedback systems.

A supportive classroom culture was critical. Teachers who fostered a psychologically safe environment—where mistakes were viewed as learning opportunities—reported greater honesty and depth in student self-assessments. This finding supports Black and Wiliam's (2009) model of formative assessment as a social and emotional process, not just a cognitive one.

Finally, student motivation influenced the uptake of self-assessment. Students intrinsically motivated to learn were more likely to engage meaningfully, while extrinsically motivated students viewed the process as a task to be completed rather than an opportunity for growth. This reiterates the conclusions of Havnes et al. (2012), who argue that cultivating a growth mindset is essential for sustaining engagement in formative practices.

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