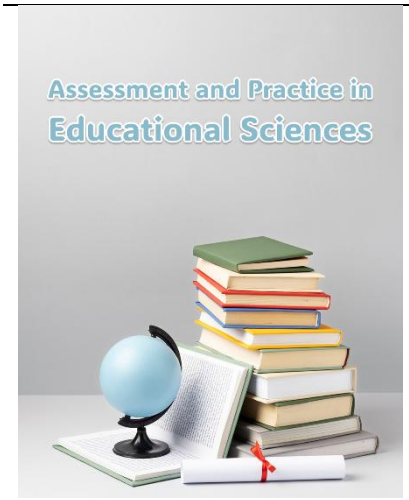
Assessment and Practice in Educational Sciences



Teacher-Perceived Factors Affecting the Sustainability of Formative Feedback Practices

ABSTRACT

This study aimed to explore the teacher-perceived factors that influence the sustainability of formative feedback practices in secondary school classrooms. The research employed a qualitative design grounded in an interpretive paradigm to examine the experiences of 29 secondary school teachers in Tehran. Participants were selected using purposive sampling to ensure relevant experience with formative assessment practices. Data were collected through in-depth, semi-structured interviews and analyzed using thematic analysis. The coding process followed open, axial, and selective coding stages, supported by the use of NVivo software. Data collection continued until theoretical saturation was reached, and ethical protocols including informed consent and confidentiality were strictly observed. Analysis revealed three main themes: (1) teacher beliefs and professional identity, (2) institutional and structural support, and (3) student engagement and response. Within these themes, subcategories such as growth-oriented mindsets, feedback confidence, workload constraints, leadership support, peer collaboration, student receptivity, and feedback literacy emerged as key factors influencing sustainability. Teachers described formative feedback as a dynamic and reflective process shaped by their educational philosophy, institutional culture, and student behaviors. The sustainability of feedback practices depended on the interplay of internal motivation, systemic facilitation, and student participation. Sustaining formative feedback requires more than individual commitment; it necessitates coherent policy support, school leadership, professional development, and student readiness. Teachers' identities, confidence, and collaboration with peers enhance feedback persistence, while institutional constraints and student disengagement pose significant barriers. Enhancing feedback sustainability will involve empowering teachers and students alike within a supportive and aligned educational ecosystem.

Keywords: Formative feedback; teacher beliefs; sustainability; assessment practices; student engagement; professional development; qualitative research

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Article type:
Original Research

Article history:
Received 13 February 2023
Revised 17 March 2023
Accepted 28 March 2023
Published online 01 April 2023

How to cite this article:
Dowlatshahi, N. (2023). Teacher-Perceived Factors Affecting the Sustainability of Formative Feedback Practices. *Assessment and Practice in Educational Sciences*, *1*(2), 28-36. https://doi.org/10.61838/japes.1.2.4

Introduction

In recent decades, formative assessment has emerged as a transformative pedagogical approach intended to enhance student learning by embedding evaluation within instructional processes (Black & Wiliam, 1998). Unlike summative assessments that primarily judge learning outcomes, formative assessment aims to inform instruction and support ongoing student development (Sadler, 1989). At the heart of formative assessment lies feedback—specific, timely, and actionable information provided to learners with the intent to improve their understanding and performance (Hattie & Timperley, 2007). Despite its well-documented benefits, the consistent implementation and sustainability of formative feedback practices remain challenging in everyday educational contexts (Carless & Boud, 2018). Teachers often struggle to maintain these practices amidst institutional

pressures, personal constraints, and student-related barriers. This study explores the teacher-perceived factors that influence the sustainability of formative feedback, drawing on insights from Iranian educators in secondary schools in Tehran.

Formative feedback plays a critical role in promoting metacognitive skills, self-regulation, and student engagement. Research has shown that high-quality formative feedback positively impacts academic achievement when it is specific, task-focused, and oriented toward future learning goals (Shute, 2008). However, evidence also reveals that many feedback practices are superficial or inconsistently applied, reducing their effectiveness (Winstone & Nash, 2016). Teachers often revert to traditional evaluative models under the pressure of curriculum coverage, standardized testing, and administrative expectations (Torrance, 2012). Furthermore, the sustainability of formative feedback depends not only on individual teacher commitment but also on systemic and cultural supports (Bennett, 2011). Understanding how teachers perceive and navigate these complexities is crucial for improving formative practices across educational settings.

The sustainability of formative feedback is not merely a matter of pedagogical knowledge or technical skill; it is embedded within teachers' professional identities and beliefs. According to Brookhart (2011), teachers' perceptions of their role in learning significantly influence how and whether they use feedback as a developmental tool. Teachers who view themselves as facilitators of learning, rather than gatekeepers of grades, are more likely to engage in dialogic and growth-oriented feedback. Additionally, teachers' beliefs about student capability and the value of feedback can mediate their commitment to sustained implementation. If educators perceive feedback as time-consuming or ineffective due to student disinterest or limited uptake, they may abandon it in favor of more manageable instructional strategies (Nicol, 2010).

Cultural and contextual variables also shape how feedback is understood and enacted. In collectivist or exam-oriented educational environments, students may perceive feedback as a form of judgment rather than support, thereby undermining its intended purpose (Zhu & Carless, 2018). Teachers operating within such contexts often face resistance when attempting to introduce formative strategies that deviate from conventional authority-based instruction (Panadero et al., 2018). In Iran, where high-stakes exams and content-heavy curricula dominate secondary education, formative feedback can be perceived as supplementary rather than integral to teaching and learning. Previous research in the Iranian context has highlighted a disconnect between policy-level advocacy for formative practices and the classroom realities faced by teachers, who must juggle competing demands with limited institutional support (Pishghadam et al., 2013).

Another critical aspect influencing feedback sustainability is institutional structure. Time constraints, class sizes, lack of training, and misaligned evaluation policies often limit the frequency and quality of feedback provided by teachers (Smith & Gorard, 2005). Sustained formative feedback requires teachers to engage in reflective practice, plan individualized responses, and monitor student progress—tasks that are difficult to accomplish without structural backing. Moreover, professional development programs frequently emphasize assessment literacy but fall short of offering ongoing support for feedback practices (Havnes et al., 2012). Teachers may be aware of best practices but unable to apply them due to organizational constraints or insufficient autonomy in the classroom.

Student response also plays a significant role in determining whether teachers continue using formative feedback. Studies suggest that when students are receptive, proactive, and capable of engaging with feedback, teachers are more likely to view the practice as worthwhile (Winstone et al., 2017). Conversely, perceived student apathy, emotional resistance, or inability to apply feedback can diminish teacher motivation to persist with formative approaches. Carless and Chan (2017) emphasize the importance of building feedback literacy among students—helping them understand the purpose of feedback, interpret it correctly, and use it for improvement. Without such literacy, even well-designed feedback risks being ignored or misunderstood, leading to frustration for both teachers and learners.

Sustainability, therefore, must be conceptualized as a multifactorial process involving intrapersonal, interpersonal, and systemic dimensions. From an intrapersonal perspective, teachers must possess self-efficacy, a growth-oriented philosophy, and an intrinsic commitment to reflective teaching. At the interpersonal level, teacher-student relationships based on trust and respect are vital to feedback uptake and effectiveness. Systemically, supportive leadership, aligned policies, and accessible resources function as enablers that allow feedback practices to persist over time (Andrade, 2010). A lack of any one of these elements can compromise the long-term viability of formative feedback efforts, despite initial enthusiasm or training.

Given the multidimensional nature of sustainability in formative feedback, qualitative inquiry offers a rich avenue to explore how teachers perceive and interpret their experiences. While much of the existing literature relies on quantitative assessments of feedback frequency or effectiveness, fewer studies delve into the contextualized perspectives of teachers who must navigate the daily realities of instructional decision-making (Lee & Thompson, 2017). This is particularly relevant in settings such as Iran, where cultural, curricular, and policy-specific challenges intersect in unique ways. By centering teachers' voices, this study aims to identify the internal and external factors that facilitate or hinder the continuity of formative feedback practices in Tehran's secondary schools.

The present study adopts a constructivist lens, viewing teachers not as passive implementers of policy but as active agents who negotiate feedback practices based on their beliefs, experiences, and environmental conditions. This perspective aligns with research that treats teaching as a situated activity, shaped by both individual agency and institutional frameworks (Lave & Wenger, 1991). Exploring how teachers conceptualize sustainability—what makes feedback endure in some classrooms but not in others—can inform more responsive training programs, supportive school cultures, and coherent policy frameworks.

Ultimately, sustaining formative feedback practices demands more than sporadic workshops or policy mandates. It calls for an ecosystem in which teachers are empowered, students are engaged, and institutions are aligned in their commitment to formative learning. This study contributes to that endeavor by examining how Iranian secondary teachers perceive the factors that support or undermine their efforts to maintain formative feedback as an ongoing, meaningful part of their pedagogy. Through understanding their experiences, policymakers and practitioners can better design systems that sustain, rather than erode, the transformative potential of formative assessment.

Methods and Materials

Study Design and Participants

This study employed a qualitative research design aimed at exploring the subjective experiences and perceptions of teachers regarding the factors that influence the sustainability of formative feedback practices in educational settings. The interpretive paradigm guided the overall approach, focusing on meaning-making through the lived experiences of participants. The target population consisted of secondary school teachers from Tehran with varied teaching backgrounds and subject specializations. Purposive sampling was used to ensure the inclusion of participants who had direct and sustained engagement with formative feedback practices in their classrooms. A total of 29 teachers participated in the study. Recruitment continued until theoretical saturation was reached, ensuring that no new themes emerged from subsequent interviews.

Data Collection

Data were collected exclusively through semi-structured, in-depth interviews. An interview guide was developed to explore teachers' understandings of formative feedback, their perceived enablers and barriers to sustaining such practices, and the contextual factors influencing their continued use. The interviews were conducted in person and lasted between 45 and 75

minutes. All interviews were audio-recorded with participants' consent and transcribed verbatim. Ethical considerations, including informed consent, voluntary participation, confidentiality, and the right to withdraw at any time, were strictly observed throughout the data collection process.

Data analysis

Data analysis followed a thematic approach, drawing from the principles of grounded theory to allow themes to emerge inductively from the data. NVivo software was used to facilitate the coding, categorization, and organization of the qualitative data. The process began with open coding of the transcripts to identify initial concepts, followed by axial coding to establish relationships among categories, and finally selective coding to develop core themes that represented the central phenomena under investigation. The credibility of the analysis was enhanced through peer debriefing and iterative comparison of codes across interviews. To ensure trustworthiness, strategies such as member checking and audit trails were employed throughout the analytical process.

Findings and Results

Category 1: Teacher Beliefs and Professional Identity

Teachers frequently emphasized their commitment to student growth as a foundational motivator for sustaining formative feedback. They expressed belief in students' potential and the importance of encouraging progress through personalized and constructive comments. A participant noted, "Even when students perform poorly, I always try to focus on what they can do, not just what they didn't do." This growth mindset was central to how teachers viewed their role in helping learners improve gradually.

Participants articulated a distinct feedback philosophy, highlighting that formative feedback should be dialogic and developmental rather than evaluative or punitive. Teachers consistently positioned feedback as an opportunity for scaffolding learning. One teacher stated, "Grades say little. What matters is how students use what I say to change their thinking." Many expressed a clear preference for feedback as a continuous learning tool rather than a post-performance judgment.

Reflective practice emerged as a critical subtheme in sustaining formative feedback. Teachers discussed how they often revisited their own approaches and adapted feedback techniques over time. This involved self-assessment and seeking input from peers. A respondent shared, "After each term, I go back to my notes and see which feedback methods actually led to visible changes. It's a process of trial and reflection."

Regarding perceived role in learning, most participants viewed themselves as facilitators or mentors rather than authoritative figures. They believed that sustaining formative feedback required adopting a learner-centered identity. As one teacher put it, "My job is not to judge but to guide. I'm not here to measure; I'm here to help them grow."

Teachers also discussed their confidence in feedback skills. Some felt highly capable, while others described uncertainty and fear of miscommunication, especially with struggling students. One participant admitted, "Sometimes I don't know how to say things without discouraging them. It's hard to be honest and kind at the same time."

Finally, teacher autonomy and ethical considerations were cited as conditions that shaped their feedback behavior. Many wanted the freedom to personalize strategies without rigid institutional protocols. Ethical concerns, such as avoiding student embarrassment, also influenced how and when they provided feedback. "I avoid pointing out mistakes in front of peers. Students need to feel safe if feedback is to work," said one teacher.

Category 2: Institutional and Structural Support

The theme of institutional conditions was dominated by time and workload constraints. Teachers described intense grading demands and a lack of scheduled time for in-depth feedback. “Giving quality feedback takes time,” one teacher explained. “When I have five classes and 150 students, I can’t go beyond surface comments.” This structural limitation often led to inconsistent feedback practices.

Teachers also voiced a strong desire for professional development tailored specifically to formative feedback. Most had never received formal training in how to give constructive, actionable feedback. “No one teaches us how to give feedback,” said one participant. “We just do it by instinct. But there’s a science to it that we don’t know.”

Leadership support was another critical factor. Participants who felt encouraged and recognized by their school administrators were more likely to persist in using formative feedback. “When my principal notices the way I give comments and appreciates it, I feel like it matters,” one teacher shared. Conversely, a lack of acknowledgment contributed to diminished motivation.

Another key issue was the policy and assessment alignment. Teachers described a fundamental contradiction between feedback-oriented learning and the pressures of high-stakes testing. One teacher remarked, “We’re told to promote learning, but then everything comes down to test scores. It’s like talking two different languages.” This mismatch often led to confusion and discontinuity in practice.

Teachers also spoke about the importance of a collaborative culture. Schools where feedback practices were shared and discussed among peers saw higher levels of consistency and innovation. “I got the idea of giving verbal recorded feedback from a colleague in our weekly sessions,” a participant said. These interactions made the feedback process more dynamic and less isolating.

Lastly, the availability of resources influenced the practicality of sustaining formative feedback. Teachers pointed to the usefulness of tools like feedback rubrics, digital platforms, and annotated exemplars. However, many lacked access. “Sometimes just having a good template makes all the difference,” one teacher explained.

Category 3: Student Engagement and Response

The sustainability of formative feedback was closely linked to student receptivity. Teachers noted that when students were defensive or dismissive, feedback often lost its power. “Some students shut down the moment you point out an error,” one teacher observed. Conversely, students who embraced critique often became active participants in their own growth.

Teachers repeatedly emphasized the role of the student-teacher relationship. Trust, emotional safety, and mutual respect were seen as essential for feedback to be effective. One teacher stated, “If the student feels I care about them, they take my feedback seriously. It’s not just about words—it’s about the relationship behind those words.”

Another major subtheme was feedback utilization by students. While some learners actively applied suggestions and revised their work, others ignored comments altogether. “I write detailed notes, but half the time they don’t even read them,” a participant shared. This inconsistency raised questions about students’ metacognitive skills and feedback literacy.

Student motivation also shaped the feedback dynamic. Participants explained that highly motivated students tended to seek feedback proactively and use it constructively. “The ones who want to improve always ask for more. They’re curious about how they can get better,” said one teacher. By contrast, students driven solely by grades often lacked interest in the feedback process.

Finally, communication barriers posed challenges, especially among students with limited academic language skills or learning difficulties. Misunderstandings of feedback content, or an inability to translate it into concrete action, were commonly reported. One participant noted, “Sometimes I realize the student didn’t even understand what I meant. We need to teach them how to use feedback, not just give it.”

Discussion and Conclusion

This study set out to explore the teacher-perceived factors affecting the sustainability of formative feedback practices in secondary schools in Tehran. Drawing on rich qualitative data from 29 teachers, the findings reveal a multifaceted framework composed of three overarching themes: teacher beliefs and professional identity, institutional and structural support, and student engagement and response. Together, these themes reflect the complex and dynamic nature of sustaining formative feedback within real-world classroom environments.

A central finding of the study pertains to the influence of teacher beliefs and professional identity on the persistence of formative feedback practices. Teachers who identified as facilitators of learning, mentors, or developmental guides were more likely to view formative feedback as a long-term pedagogical commitment rather than a one-off instructional strategy. This aligns with Brookhart's (2011) assertion that teachers' self-perceptions are foundational to their assessment behaviors. Participants' emphasis on student growth and a feedback philosophy grounded in dialogue and reflection echoes earlier findings that formative feedback is most sustainable when integrated into teachers' core instructional identities (Nicol, 2010; Hattie & Timperley, 2007). Furthermore, self-efficacy emerged as a powerful factor. Teachers who felt confident in their feedback skills were better equipped to navigate challenges and maintain consistent feedback routines—corroborating Winstone and Nash's (2016) notion that professional confidence enhances feedback engagement.

The theme of reflective practice also proved crucial. Many teachers described how they routinely evaluated the success of their feedback through informal reflection or peer consultation. This iterative process of experimentation and adaptation supports Lave and Wenger's (1991) situated learning theory, which positions practice as evolving through interaction with context. Teachers' inclination to adjust their feedback strategies over time illustrates that sustainability is not a static outcome but an ongoing, responsive process. However, the findings also indicate that reflection alone is insufficient without structural support—underscoring the importance of the second major theme.

Institutional and structural support significantly shaped the feasibility of maintaining formative feedback practices. Participants repeatedly cited *time constraints* and *workload* as key barriers. This mirrors global research showing that large class sizes and heavy grading loads limit teachers' ability to engage in detailed, student-centered feedback (Smith & Gorard, 2005; Carless & Boud, 2018). Even when teachers possessed the philosophical and professional will to implement feedback, the logistical realities of schooling often forced them to deprioritize it. In particular, the lack of dedicated time during the school day for individualized feedback planning and student follow-up was highlighted as a major impediment.

Teachers also expressed a strong demand for professional development. While most had been exposed to general assessment training, few had received in-depth instruction on how to deliver and sustain effective formative feedback. These findings resonate with Havnes et al. (2012), who argue that most professional development efforts remain insufficiently targeted and disconnected from teachers' daily realities. The need for feedback-specific training—preferably ongoing, collaborative, and situated within teachers' instructional contexts—is evident. Without it, feedback practices risk becoming performative or sporadic rather than deeply embedded in pedagogy.

Another key subtheme was the degree of leadership support and policy alignment. Teachers who reported encouragement from school leaders—whether in the form of verbal recognition, strategic support, or policy coherence—felt more empowered to persist with feedback practices. This supports Bennett's (2011) view that institutional climates must be conducive to formative learning for feedback practices to thrive. Conversely, participants described how misaligned policies—such as rigid exam schedules or conflicting grading mandates—undermined formative goals. These tensions reinforce Torrance's (2012)

critique that assessment reform often suffers from conceptual contradictions between formative ideals and summative accountability structures.

The role of peer collaboration emerged as both a motivator and enabler of feedback sustainability. Teachers who engaged in regular feedback discussions with colleagues felt more confident, inspired, and less isolated. This aligns with Carless and Chan's (2017) emphasis on dialogic professional cultures and the benefits of peer modeling in enhancing feedback literacy. In contrast, schools lacking a feedback-oriented culture saw teachers operating in silos, often defaulting to minimal feedback due to lack of mutual support.

The third main theme—student engagement and response—highlighted how student behavior, attitudes, and capacities directly influenced the sustainability of feedback practices. Teachers reported that students who were open to critique, engaged with comments, and revised their work encouraged them to maintain formative strategies. These findings affirm the arguments made by Winstone et al. (2017) and Zhu and Carless (2018), who emphasize that feedback must be a shared, dialogic process rather than a unidirectional act. Teachers also observed that relational trust and emotional safety were prerequisites for effective feedback, echoing findings that student-teacher rapport significantly mediates feedback uptake (Hattie & Timperley, 2007).

Despite teachers' best intentions, however, many faced communication barriers that limited the efficacy of their feedback. These included students' limited academic language, difficulty in interpreting feedback, or low motivation. In such cases, feedback—even when well-designed—failed to result in behavioral or cognitive change. This highlights the critical need to build student feedback literacy, a concept emphasized by Carless and Boud (2018), who argue that students must be explicitly taught how to interpret and act upon feedback. Without such scaffolding, feedback efforts risk becoming cyclical and ineffective.

Taken together, the study's findings reinforce a conceptual model in which feedback sustainability is a function of both internal (beliefs, identity, reflection) and external (institutional, relational, pedagogical) dynamics. Teachers require not only the will but also the way—meaning systemic structures that support rather than obstruct formative intent. Additionally, sustainability depends on the responsiveness of students who, when engaged meaningfully, become co-constructors of the feedback process.

Acknowledgments

We would like to express our appreciation and gratitude to all those who helped us carrying out this study.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adheried in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

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