

Exploring the Primary School Teachers' Perceptions, Practices and Challenges in
Implementing Formative Assessment: Evidence from Urban Sindh, Pakistan

Hafsa Lakho

Hafsa.mphils25@iba-suk.edu.pk

MPhil Education in Leadership and Management

Dr. Sayyed Tanweer Ahmed Shah

tanweer.ahmed@iba-suk.edu.pk

Lectures Education, Sukkur IBA University

Hatim Ali

Hatim.mphils25@iba-suk.edu.pk

MPhil Education in Leadership and Management

Mehr U Nisa

Mehr.mphils25@iba-suk.edu.pk

MPhil Education in Leadership and Management

Corresponding Author: Hafsa Hafsa.mphils25@iba-suk.edu.pk

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ABSTRACT

This study explores primary school teachers' perceptions, practices, challenges, and proposed solutions regarding the implementation of formative assessment in urban Sindh, Pakistan. Grounded in a qualitative phenomenological design, the research aimed to understand teachers' lived experiences and the meanings they attribute to formative assessment within their classroom contexts. Data were collected through semi-structured interviews with ten purposively selected public primary school teachers in Sukkur. The interviews were conducted in Sindhi and Urdu, audio-recorded with consent, transcribed, translated into English, and analyzed using Braun and Clarke's (2006) six-phase thematic analysis approach. The findings reveal that teachers perceive formative assessment as a dynamic and reflective pedagogical tool that supports instructional adjustment, enhances professional growth, and fosters stronger teacher-student relationships through continuous dialogue and feedback. Participants described formative assessment as a "daily mirror" and a "conversation rather than an examination," emphasizing its role in responsive teaching and emotional support. However, several contextual barriers hinder its effective implementation. These include limited parental understanding of formative assessment, with a predominant focus on summative grades; curriculum rigidity and exam-driven instructional demands that restrict flexibility; and a weak culture of peer collaboration characterized by limited professional learning communities and competitive norms. To address these challenges, teachers proposed context-sensitive strategies such as enhancing parental engagement through workshops, visual learning evidence, and digital communication platforms; integrating formative assessment into curriculum planning through teacher-led customization; and cultivating collaborative professional learning communities supported by mentoring, peer observation, and leadership involvement. The study underscores that sustainable implementation of formative assessment in primary education requires institutional flexibility, stakeholder collaboration, and culturally responsive communication. By providing localized insights from an under-researched region of Sukkur, Sindh, Pakistan, this research contributes to the literature on learner-centered assessment reform and offers practical implications for policy and school-level practice.

Keywords: Formative Assessment, Primary School Teachers, Perceptions, Practices, Challenges, Pedagogical Practices, Qualitative phenomenological, Sukkur, Pakistan

INTRODUCTION

Education serves as a foundation of individual and societal development, shaping the social, emotional and intellectual growth of learners (Black, 2011). It is through education that individuals acquire essential knowledge, skills and competencies necessary for personal development and active participation in society. A critical component of effective education is assessment, which plays a pivotal role in measuring student learning, guiding instructional practices and enhancing educational outcomes. Assessment serves as a mechanism for identifying students' strengths and areas for improvement, thereby enabling teachers to tailor teaching practices to meet diverse learning needs (Brookhart, 2013). Among various assessment practices, formative assessment has gained significant attention for its role in fostering student engagement and improving learning trajectories. Formative assessment refers to the range of evaluative practices employed during instruction to monitor student understanding, adapt teaching strategies and provide immediate feedback (Heritage, 2007). Unlike summative assessment, which assesses learning at the end of an instructional period, formative assessment is integrated in daily classroom activities, facilitating real-time adjustments to teaching and learning (William, 2011). This dynamic process includes various techniques including quizzes, teacher observation, peer assessment, and interactive discussions, all aimed at enhancing student understanding of subject matter and promoting active participation. These strategies not only help teachers gauge student's' learning progress but also encourage learners to take an active role in their education by engaging in self-reflection and self-regulated learning (Bennet, 2011). Recent research finds that most teachers have a positive perspective regarding formative assessments, viewing these as a realistic way of promoting student learning. Many teachers perceive that these ongoing assessments create a more interactive, student-centered environment in the classroom and allow teachers to identify gaps in learning and modify lessons immediately (Dixson, 2016). Moreover, teachers also point out that formative assessment helps to support a growth mindset in students by focusing on students' improvement, rather than focusing on a fixed number, and relieving some of the anxiety associated with high-stakes assessments. Furthermore, research suggests that teachers that use formative assessments effectively experience more job satisfaction because practices allow them to see students consistently improving and engaging in learning (Dixson, 2016). While formative assessment is well documented as benefiting students, there are challenges faced by teachers when using the formative assessment process. Research indicates that systemic and structural factors such as an emphasis on summative assessments, high workload, and limited time play a significant role in derailing teachers from incorporating formative assessment during instruction (Heritage et al., 2009). Because standardized testing is so prevalent, teachers often feel compelled to focus on the test preparation aspect and disregard continuous assessment altogether, thus reducing the potential of formative assessment as a tool for active engagement towards meaningful learning (Bennett, 2011). A lack of professional education and guidance also complicated the approach to formative assessment practice (Heritage, 2007). Educators found they frequently were not able to balance their primary job requirements with the extra time required to utilize formative assessment techniques appropriately. Studies have also provided evidence of logistical issues associated with the time permitted for completing student assessments such as classroom size, technology, and teacher material supports negatively impacted educators' ability to frequently provide timely feedback (Black, 1998). In the context of Pakistan, existing research identified that teachers recognized the potential of formative assessment to track students' progress; however, inconsistent implementation remains a result of systematic barriers (Ahmed et al., 2019). These include inadequate training, insufficient resources and a prevailing focus on summative assessment measures. However there is a notable gap in literature regarding the specific perceptions and challenges faced by primary school teachers in Sukkur, Sindh. Most of the studies have concentrated on different contexts and broader educational levels, leaving the formative assessment practices in the Sukkur region and in primary education underexplored. Additionally, most existing studies on formative assessment in Sindh, Pakistan have employed surveys that focus on broad statistical trends rather than in depth qualitative insights (Ahmad et al., 2019). To address this gap, his study employs a qualitative research method utilizing semi-structured interviews to provide in depth insights into how formative assessment is practiced in primary schools, the

obstacles primary school teachers encounter and the potential strategy to enhance its effectiveness within this specific educational setting. By exploring the perception and experiences of teachers in a primary school of Sukkur, this study seeks to contribute to the broader discourse on formative assessment implementation in primary schools of Sindh, Pakistan.

Problem Statement

Formative assessment is widely recognized as a pivotal educational practice that enhances student learning by providing continuous feedback to inform instructional strategies (Black & William, 1998). Despite its proven significance, the implementation of formative assessment in primary education faces challenges, particularly in government primary schools of Pakistan. Although formative assessment has been shown to improve student engagement, critical thinking, various systematic and institutional barriers impede its practical application in classrooms. Studies highlight that in Pakistan, teachers often face multiple challenges such as lack of professional training, insufficient instructional resources, time constraints which hinder teachers from implementing formative assessment (Ahmad, 2019). Likewise, Beesley et al., (2018) reported that most primary school teachers also do not demonstrate adequate knowledge of formative assessment practices which likely produces variations of application. In Sindh, Pakistan the dilemma intensifies as teachers are oriented towards summative assessment performance and place value in standard testing over assessment attempts on a continuous basis, and feedback provision (Hussain et al., 2019). Failure to overcome these issues will ultimately lead to lack luster teaching practices and subsequently lead to lower academic achievement for poor students. Additionally, a lack of formative assessment practices will further endorse students' reliance on rote learning as opposed to developing critical and problem solving skills necessary to promote students' development. If these challenges persist, the education system may continue to produce students with limited analytical skills, ultimately affecting national development and workforce readiness (Beeley, 2018). Despite extensive research on formative assessment in Pakistan, significant contextual and methodological gaps persist, particularly concerning primary schools in Sukkur, Sindh such as studies conducted in Sanghar, revealed that teacher often struggle with understanding and implementing formative assessment due to shortage of time, inadequate, lack of training on different assessment practices, students' behavior (Laghari, 2020). However, these findings may not fully reflect the situation in Primary schools of Sukkur due to variations in local educational policies, infrastructure and teacher support systems. Moreover, many studies predominantly employ quantitative methods which, while useful for general trends, do not capture teachers' detailed experiences and perspectives regarding formative assessment (Ahmad, 2019). This reliance on numeral data limited the development of targeted strategies that address specific challenges in formative assessment implementation. To address contextual and methodological gaps, this study aims to explore the perceptions, practices and challenges of primary school teachers at Sukkur, concerning formative assessment implementation. By employing qualitative research methods, this study aims to provide in depth insights into how formative assessment is practiced, the challenges teachers face, and the potential solutions and strategies to enhance effectiveness of formative assessment implementation within this specific educational setting.

Research Objectives

1. To explore the perceptions of primary school teachers regarding formative assessment practices.
2. To identify the challenges faced by primary school teachers in implementing formative assessment in their classrooms.
3. To explore possible solutions and strategies that can enhance effective use of formative assessment in primary education.

Research Questions

1. How do primary school teachers of Sukkur perceive formative assessment?
2. What challenges do primary school teachers encounter in implementing formative assessment in their classrooms?
3. What solutions and strategies do primary school teachers suggest for improving the implementation of formative assessment in primary education?

LITERATURE REVIEW

This literature review examines key aspects of formative assessment, including its theoretical foundations, practical applications, barriers to effective implementation and potential strategies for enhancing its impact on teaching and learning.

Understanding Formative Assessment

Formative assessment is an essential tool for evaluating students' learning throughout the instructional process, focusing on continuous feedback to support and monitor their progress. Unlike summative assessment, which typically evaluates students' learning progress at the end of instructional period, formative assessment is integrated into the learning process and is used to inform teaching strategies and student activities in real time (Black and William, 1998). The ongoing nature of formative assessment allows teachers to make immediate adjustments to their instruction, ensuring it is dynamic and responsive to students' needs. The purpose of formative assessment is not merely to evaluate, but to foster learning by providing students with valuable insights into their strengths and areas requiring improvement, thus facilitating a more personalized educational experience. As highlighted by Hattie and Timperley (2007), feedback plays a critical role for student achievement; it must be timely, specific and constructive to have the most significant impact on students' learning. Well-designed formative assessments enable teachers to identify learning gaps, misconceptions, helping students make necessary adjustments in areas that require improvement.

A range of formative assessment techniques are employed in classrooms, including oral questioning, think-pair-share, peer assessments, self-assessments, and classroom discussions, all of which contribute to a continuous dialogue between teachers and students. These assessment techniques are particularly effective because they create low-stakes, frequent opportunities for feedback, fostering a classroom environment where students feel safe to take risks and focus on improvement rather than solely on performance (William, 2011). Research suggests that formative assessment is most effective when aligned with learning goals and instructional strategies. It goes beyond a simple evaluation tool to actively shape the learning process. When implemented effectively, formative assessment not only improves the quality of teaching but also leads to better student outcomes by supporting continuous, adaptive learning throughout the educational experience (Worrell, 2016).

Above studies emphasize that formative assessment is a continuous process used during instruction to monitor student progress. Unlike summative assessment, it provides real time feedback to guide teaching and learning. Its primary goal is to identify learning gaps and improve student outcomes.

Teachers' Perceptions and Practices of Formative Assessment

Formative assessment is widely recognized as a critical component of effective teaching and learning, yet

teachers' perceptions and practices vary significantly based on their understanding, training and contextual factors. Research indicates that many teachers perceive formative assessment as an essential tool for enhancing student learning by providing ongoing feedback and identifying learning gaps (Black & William, 2018). However, while teachers acknowledge its importance, they often struggle with its implementation due to time constraints, large class size, and lack of professional development (Dempsey, 2018). Other educators consider formative assessment as a tool of motivation and engagement of students with the belief that it would enhance the self-regulated learning of students and their metacognitive skills (Heritage, 2016). Some of them, though, have expressed concerns about the increased workload during frequent assessments and difficulties of the balance between formative and summative assessment in teaching practices (Brookhart, 2021). Moreover, the institutional requirements and the needs of standardized testing affect the perceptions of teachers, which could lead to the conflict between formative and summative priorities (Dunn 2020). What is more, the beliefs in student readiness and responsibility on the part of the teachers influence their practices regarding formative assessment. On the one hand, some of them consider students as active participants in the process and on the other hand, they see students as passive recipients of feedback (Brookhart, 2021).

In practice, Formative assessment can be in many ways, such as peer and self-assessment, questioning techniques, exit tickets, formative quizzes, and yet, the teachers only have the potential to use the practice adequately based on their pedagogical expertise and the limitations imposed by the contexts. According to research, systemic of formative assessment practice is most likely to be incorporated in the teaching when the desired professional development is received (William, 2018). However, many teachers rely on informal methods such as classroom discussions and observational assessments rather than structured formative techniques due to time limitations and curriculum demands (Heritage, 2016). Some educators successfully embed formative assessment in daily instruction by using real time feedback and mechanisms such as digital tools such as kahoot and student response systems, to adapt teaching strategies dynamically (Brookhart, 2021). In contrast, other teachers struggle with designing meaningful formative assessments that align with learning objectives and provide actionable insights for instructional adjustments (Cizek, 2019). Additionally, collaborative formative assessment practices, such as peer assessment and student-led conference, are more commonly implemented in classrooms where teachers view students as co-constructors of knowledge (Dunn & Mulvenon, 2020). However, challenges such as student resistance, lack of engagement, and difficulties in providing constructive peer feedback often hinder the effectiveness of these practices. Despite these challenges, teachers who integrate formative assessment effectively tend to foster a classroom culture of continuous improvement and adaptive learning, ultimately enhancing student outcomes. Although perceptions, shape practices, professional development, institutional support, and transition to student-centered assessment practices are factors necessary to get the maximum advantages of formative assessment in educational contexts.

In above research, it has been noted that the practice and perception of teachers' formative assessment contribute to the implementation. Teachers who feel that it can be applied to assist students in their continuous development tend to apply it, whereas, those teachers who see it as time consuming and a challenge to apply will not do so. Professional development maximizes the use of formative assessment by the teachers and effectiveness depends on teachers' beliefs, institutional support and context.

Students' Engagement and Response to Formative Assessment

Formative assessment is crucial in motivating students as it reduces boredom and offers the students a chance to improve. The findings of these studies show that actively involved students in formative assessment have higher makings of motivation and academic achievement (Black & William, 2018). Such forms of assessment are quizzes, peer review, group discussion, and reflective exercises that make the students take a sense of control over their learning by determining the gas and organizing their responses

accordingly (Hattie & Timperley, 2007). In cases when formative assessments are created interactively to align with the learning objectives, they have increased chances of meandering through the material developing a growth mindset (Dweck, 2006). Formative assessment process enables a shift in the emphasis off grades and on mastery and it also enables students to embrace challenges as sources of growth as opposed to threats to self-esteem. Also, it is important to provide on time and constructive feedback that will give the students idea about their improvements and weaknesses thus, they become more responsive to learning activities. Research findings also indicate that formative assessment induce less anxiety than high-stakes assessment because it is oriented towards learning than grading (Hattie, 2007). When the students understand that the formative assessment activities are aimed at facilitating and not evaluating their skills, the student feel free to take such risk and to embark on self-regulated learning. Such involvement can be especially observed in those cases where assessments are made low-stakes with a strong emphasis on interactions, offering the students a chance to display comprehension several times with appropriate feedback.

The success of formative assessment however, may vary, depending on how much students are willing to interact with the feedback given to them and how much they take appropriate actions on the same. Lack of knowledge about the purpose of formative opportunities and guidance about how they should respond to formative feedback might cause some students not to take full advantage of the opportunity (Worrell, 2016). To enhance it to the fullest, educators should formulate formative activities that are meaningful and low-stakes and built into learning. As an example, the student engagement can be boosted by the implementation of technology-enhanced formative assessment (online polls) and adaptive learning that allows rendering feedback individualized and timely (Beesley, 2018). Moreover, the students can be made more responsive to formative assessments by developing a classroom culture that regards mistakes as learning opportunities (Brookhart, 2013). Students who feel that formative assessments are not as evaluative but are more supportive are in a sense more motivated to participate actively and eventually elevate their performance in the long run. The teachers are also supposed to be the role models on how they can interpret and apply feedback because students normally require to be told directly on how the assessment data can be used on planning their learning. Formative assessment is best accomplished through integration into everyday lessons and the constant focus of teachers on the importance of formative assessment as growth. In this way teachers can establish a learning environment in which students accept the responsibility to take control of their learning.

The literature above focuses on the positive role that timely feedback, interactive tasks, and alignment of the formative assessment with learning goals play in the process of student engagement and response to the formative assessment. It points out that, it enhances self-regulated learning and attention to mastery rather than performance. The studies however also mention that formative assessment tends to be efficient based on the ability of the students to receive the feedback and act accordingly and this is based on the articulation of instructions and classroom climate in which the assessments are incorporated.

Challenges in Implementing Formative Assessment in Classrooms

Formative assessment can be evaluated as the process during which the learning process of students is constantly examined in order to give feedback and modify teaching and is well recognized to have the ability to enhance the quality of education. Nevertheless, it is highly challenging to apply it in the classroom. Among the issues is inadequate program free training and professional development of the teachers. Formative assessment design and implementation preparation is not adequately done among many educators. Black and Wiliam (2009) state that one of the main challenges that teachers face regarding formative assessment is adapting it to their everyday routine, which happens to be because they have a restricted knowledge about the principal and methods of the formative assessment. The compulsion of embracing standardized curricula and high stakes tests makes this problem worse and can make a teacher

discouraged to use formative assessment (Heritage, 2010). Lack of proper training and professional evolution can lead the teachers to avoiding appropriate and consistent use of formative assessment becoming instead a weak tool with limited potential of promoting learning among students.

Scarcity of resources and time limits of the educators is another burden. Formative assessment is a constant process involving monitoring, responding and modification and this might prove to be time consuming in crowded classrooms where students have different needs in learning. The studies note that formative assessment may not align with the requirements to meet as little curriculum, where teachers have little time to effectively incorporate formative assessment (Bennett, 2019). Moreover, the unavailability of relevant tools and technologies may discourage the processing and aggregation of formative assessment data (Wiliam, 2011). The obstacles to the formative assessment practice multiply in low-resource contexts where schools might not have support systems and structures to support the formative assessment practice (Andrade et al., 2019). Moreover, formative assessment may also be hindered by the cultural and institutional barriers including resistance to change and the generally summative focus (Heritage, 2010). These issues highlight the necessity of systematic alterations to accommodate teachers with the view of eliminating these barriers and capitalizing on the potential of the formative assessment.

Besides these difficulties, the inconsistency in how students would respond to the formative assessment is also another difficulty. The effect of formative assessment techniques on students of various cultural and socio-economic backgrounds might be different and influence the general outcomes of the practices. According to Heritage (2010), what works in one context as far as formative assessment is concerned may not apply effectively in the other, and therefore there is a need to have a more sophisticated approach to implementation of practices. In addition to that, the mismatch between the current educational policies and the practices of formative assessment may cause additional issues. Policymakers are focused on summative assessment type often and, thus, there is a dis-alignment of the goal of formative assessment in relation to school objectives (Black & Wiliam, 2009). Such lack of form can lead to the absence of institutional backing to the formative assessment initiative, further contributing to poor implementation of the same. The combination of specific professional development, policy changes, and sufficient resources and support systems is a complex approach that must be implemented to tackle these challenges.

Above research indicates that one of the barriers to implementing formative assessment is inadequate training of teachers which reduces the capability of teachers to make full use of formative assessment practice. Implementation is further hampered by time constraints and inadequate resources particularly in the classrooms with a high population and inadequate resources. Additionally, the integration of formative practices is impeded by more cultural opposition and institutional utility on standardized rating. Moreover, there are varied student reactions and a lack of alignment with policies in education, which contribute to complexity.

Strategies and Solutions for Effective Implementation of Formative Assessment

Formative assessment is a valuable tool for improving student learning, but it must be utilized purposefully. One best practice is to establish a series of feedback loops with continual assessment. Feedback should be kind and time specific, direct, and actionable for the student (Wiliam, 1998). This encourages self-regulation and gives them the opportunity to assess their own learning gaps. Additionally, using techniques such as questioning types including open response and higher order questions, allows the teacher to gauge student levels of engagement and understandings in the moment (Hattie, 2009). Research also suggests that technology plays a crucial role; digital tools provide opportunities for quizzes and interactive platforms which capture data in the moment so that, the educator can respond to a gap in learning (Popham, 2008) immediately in the moment. These practices highlight the importance of wanting to be responsive, formative assessment is a process not an event, my activity needs to become a continuous change rather

than treat formative assessment as an afterthought.

Another important solution is professional development activities for teachers to strengthen their capacity for formative assessment practices. The literature indicates that many teachers do not appropriately plan for or implement formative assessments because of their lack of training (Heritage, 2010). Workshops, collaborative learning communities, and mentoring programs can provide teachers with the tools they need to develop meaningful assessments while aligning them to learning objectives. Student engagement in the assessment process with self-assessment and peer feedback, also increases progress in students' ownership of learning and metacognitive skills (Andrade, 2009). For example, rubrics and reflection journals create opportunities for students to critically assess their progress. Assessments based on students' points of view not only improve learning but also enable a culture in the classroom where people can view the assessment as a systematic support rather than punishment.

Institutional support is vital for implementing formative assessment successfully as it establishes the conditions for activity to flourish over time. Research indicates that supporting teachers' autonomy in choosing and adapting formative assessment activities provides teachers with a sense of ownership, and makes the formative assessment activities more relevant to their own use in the classroom (William, 2011). Providing flexibility in assessment framework gives teachers the opportunity to adapt their ways to the needs of their appointments. Institutional support offers teachers the time to engage in professional development opportunities, and practice integrating new activities. When working collaboratively in professional learning communities or workshops, this builds on implementation because teachers can share their experiences, and collaboratively change their ideas starting with knowledge of the context in which they work (Herman, 2009). Systematic support is critical for viability at the institution level. School leaders need to prioritize formative assessment by building the conditions where structured time can be allocated for teacher collaboration, data conversations, and strategy implementation. Plans to reduce reliance on high-stakes accountability-related testing can also help to free and support formative practice, which shifts the focus away from accountability and high stakes assessment to growth-oriented and low-stakes assessments. Additionally, involving parents by proactively giving them clear and precise information about the purpose and means of assessment, combined with their child's learning progress, enables and encourages parents to extend learning beyond the classroom, creating a supportive environment for student achievement (Tweed, 2018).

These recommended measures underscore a shift toward a more unified approach, where formative assessment is integrated into the curriculum design, teaching strategies and established priorities of a school. Formative assessment, even if designed well, needs support at all levels to be most effective.

Research studies outlined above show that effective use of formative assessment requires implementation of purposeful feedback, real time questioning and using digital tools that foster student learning. Other studies showed that ongoing professional development, such as workshops and teacher mentoring is effective in supporting teachers, to be better at designing assessments. There is also emphasis from the research studies that the impact of metacognition, ownership and peer feedback through self-assessment engages learning. Finally, providing increased teacher autonomy, opportunities for collaboration, and reducing the number of mandated high stakes tests are some of the solutions proposed for establishing sustainable formative assessment practices.

Conclusion

Formative assessment is a highly effective educational process that improves learning experiences through continuous feedback and adaptive instruction. Formative assessment's effectiveness ultimately depends on a variety of teachers' beliefs and perceptions, student engagement, and overcoming barriers to the effective

implementation of formative assessment including constraints of time, a lack of professional training and development, and barriers from institutionalized practices and policies within the education system. A considerable number of studies have identified the benefits of the implementation of formative assessment; specifically the effect on fostering a growth mindset, enabling metacognitive skills or strategies, anticipating and reducing testing anxiety. Despite its documented benefits by empirical studies and research, formative assessments can only be effectively implemented if teachers are supported through professional development opportunities that align with the instructional goals, the education system also provides support to teachers regarding policies that govern academic and educational planning and lastly and lastly a shift to student-centered learning. If teachers develop professional practices, consideration of removing any barriers through collaborating, working with others, including a range of technological tools or access to, exploratory environments, we may shift to using formative assessment in dynamic and responsive classrooms versus those needed to meet governmental education expectations on a high-stakes assessment.

Literature gap

While formative assessment has been widely studied in developing contexts across Pakistan, there is a visible literature gap on studies that relate to formative assessments in Primary schools in Sukkur in Sindh, Pakistan. Most research has been carried out in other provincial and urban areas and has identified general challenges and practices. The outcomes of these studies may not reflect the socio-cultural and institutional context of Sukkur. This lack of localized research restricts the formulation of contextually relevant strategies to enhance formative assessment practices in the area. Additionally, there exists a methodological gap, as most previous studies have primarily employs quantitative method offering limited insight into the deeper perceptions teachers, notably, there is scarcity of qualitative research focuses on Sukkur that explores how primary school teachers perceive and experience formative assessment, which is essential for informing more effective and sustainable educational practices tailored to the region.

THEORETICAL FRAMEWORK

This research is based on Sociocultural Theory developed by Lev Vygotsky, where social interaction, context and culture are stressed as contributing factors to learning and development. Learning, according to Vygotsky, is socially mediated process which is realized through scaffolding, dialogue and feedback in a learners' zone of proximal development (ZPD). Formative assessment is in line with these principles since it entails ongoing feedback, teacher-student interaction, and collaborative working to recognize and target learning gaps. Through peer discussion, self-assessment, and questioning by the teacher, students are facilitated and guided from their present level of understanding to more advanced levels of cognitive competence. In the case of Sukkur primary schools where this research is being conducted, the sociocultural context like school culture, teachers' cooperation and parents' attitudes impacts upon how formative assessment is viewed and practiced. The framework affirms the belief that quality assessment is not all about examining students as individuals but co-constructing knowledge through interaction, reflection and collective responsibility. When formative assessment is combined with daily teaching, teachers can act as learning facilitators, giving suitable assistance based on students' levels and backgrounds. It is why this theory was preferred over constructivism and behaviorism, since it considers the context and relationships in formative assessment. Unlike constructivism that focuses solely on what individuals think about themselves and behaviorism which only notices final outcomes and test scores. Vygotsky's theory offers a thorough approach by including cultural, institutional and interpersonal factors in its analysis of the challenges explored in this study.

METHODOLOGY

Research Method

A qualitative method was chosen for this study to explore perceptions, practices and challenges faced by primary school teachers in implementing formative assessment. This method enables the researchers to gain deep insight into the experiences of participants and give a rich contextual account of complex educational phenomena (Creswell, 2013). Since the study deals with the subjective opinions and experiences of teachers, a qualitative approach will be especially appropriate because it allows the process of capturing a detailed description of opinions and experiences (Denzin, 2018). The qualitative method is also grounded in the context-specific knowledge practices and issues rather than on the statement of generalizability, in contrast to the quantitative method (Poth, 2018). Also the versatility of qualitative research, including semi structured interviews, made it possible to freely explore the perceptions of the participants and include those which might not be brought up when doing structured surveys (Tisdell, 2015). Therefore, the qualitative method was chosen to gain better insight into intricacies of formative assessment perceptions, practices, and the difficulties encountered by educators in Sukkur primary schools.

Research Design

This study employed phenomenological research design to explore the lived experiences of primary school teachers in implementing formative assessment. Phenomenological is well suited for understanding how individual perceive and make meaning of particular Phenomenon, in the case, formative assessment practices within primary schools. The design allowed for an in depth exploration of teachers' subjective experiences, challenges and interpretations related to formative assessment (Denzin, 2018). By focusing on the essence of their shared experiences, the study aimed to uncover the core meanings and insights that shape how formative assessment is understood and practiced in the specific context of Sukkur, Sindh.

Data Collection Tool

The instrument used to gather the data was semi-structured interviews, a well-known technique used in qualitative studies, which balance between a directed line of questions and an open-ended inquiry. Semi-structured interviews were appropriate because the researcher could gather enough information through probing but still sustain flexible arrangement that could flow with the way the participant responds (kallio, 2016). A research guide was created using the research questions of the study.

All the interviews were based on Sindhi and Urdu language which is the preferred language of participants so that the participant feels comfortable and can communicate clearly, and afterwards they were translated to English so that they could be analyzed. The interviews were conducted in the duration of about 25-30 minutes and audio-recorded by the agreement of the participants to guarantee the data completeness and accuracy.

Participants of the Study

The research is being carried out among the primary school teachers of Sukkur. Ten teachers were purposively chosen to participate. The method, which is also termed as purposive sampling, is a common one in a qualitative study where researchers chose to identify individuals that are specifically knowledgeable or experienced with the phenomenon of focus (Creswell, 2015).

The selection criteria of the participants were as follows:

- The participant must be a full time primary school teacher in public sector of Sukkur
- The participant must have a minimum of two years of teaching experience.
- The participant must be actively engaged in classroom level assessment practices including but not limited to formative assessment practices

Data Analysis

The collected data were analyzed using thematic analysis, following the approach outlined by Braun and Clarke (2006). Thematic analysis enabled the researcher to identify, analyze and report patterns within the data in a systematic manner. This method was suitable for uncovering recurring themes regarding how teachers perceive formative assessment and the challenges they encounter.

The analysis process involves the following six steps:

1. Familiarization with data: all interviews transcripts were read multiple times to gain deep understanding of the content.
2. Generalizing initial codes: key phrases and meaningful units of data were coded manually. These codes reflected significant parts of teachers' experience and were relevant to the research questions.
3. Searching for themes: codes were organized into potential themes
4. Reviewing themes: Themes were refined by rereading the data to ensure internal consistency and distinctiveness from one another.
5. Defining and naming themes: each theme was clearly defined and sub themes were developed where necessary to capture nuances within the data.
6. Writing the report: the final themes were described in detail and supported within direct quotes from participants to ensure authenticity and grounding in the data.

To ensure credibility and trustworthiness of the findings, the researcher employed member checking, where participants were invited to review a summary of findings to verify accuracy of the interpretation (Lincoln, 1985). Additionally, peer debriefing was used to discuss findings with colleagues to identify potential bias and to refine the analysis process.

FINDINGS/RESULTS

The following are the themes, identified from the data.

Formative Assessment as a Tool for Pedagogical Reflection and Adjustment

The findings revealed that participants perceive formative assessment not merely just as a strategy for monitoring student learning, but also as a reflective tool that informs and transforms their instructional decisions. Participant 1 stated, "*Formative assessment is my daily mirror, I see what worked and what didn't, and then I change my teaching next day.*" Likewise, the Participant 3 noted "*it's a learning map, which can be used to keep track of student comprehension and modify lesson plans.*" Such responses indicate that formative assessment is not only enabling teachers to assess student learning but they also

utilize it as a mechanism of enhancing their own learning as teachers.

Participant 6 explained, *“When I ask questions and find in the lesson some puzzled faces, I understand that I should re-teach the topic again differently.”* This is an example of responsive and adaptive practice in instruction, as the reaction of students is the factor that predetermines the immediate alteration of teaching practice. Participant 7 referred to *“formative assessment as a conversation, not an examination”* emphasizing on the interactive aspect of what they did in their classrooms. Instead of perceiving assessment as one sided process, teachers tried to highlight its presence to encourage mutual understanding and participation. Participant 9 claimed that *“it tells me when to go slowly or to provide more examples, that it was like real-time feedback to me,, not just the students.”*

In general the results point to the fact that, teachers consider formative assessment as a process which is dynamic and continual and makes students gain knowledge as well as the teacher grow professionally. It acts as a reflective instrument so that it allows them to modify the instruction according to the direct classroom data and helps in increasing the effectiveness of teaching as well as learning outcome.

Formative Assessment Strengthens the Teacher Student Relationships by Continuous Interaction

The results indicated that the formative assessment helps to develop a closer relationship between students and the teacher through the establishment of meaningful and frequent interactions in a given setting. As teachers indicated, with frequent feedback and informal questioning as well as supportive individual work, the students started to perceive their teachers as people who could help them rather than represent judgement in the process of learning.

Participant 2 asserted that, *“Personally, when I give feedback and inquire about the progress of students to them, they open up more, It builds trust.”* This idea was reinforced by Participant 4 who added, *“Formative assessment allows daily conversation with each child, not just about marks but about how they are learning. That makes them feel valued.”*

As a result interactions, students began to approach teachers more openly. Participant 6 explained, *“Students used to be scared to talk to me about their problems. Now they know I am here to guide, not to punish. This change came because of continuous interaction during assessments.”* This supportive communication also enhanced student motivation. Participant 8 noted, *“When I praise even small improvements, students feel motivated. They start sharing their thoughts more freely.”* Similarly, Participant 10 stated, *“I have seen students who were previously quiet become more connected to me because they feel seen and heard through regular feedback.”*

Overall, these insights suggest that formative assessment not only improves academic outcomes but also nurtures positive teacher-student relationships. By fostering open communication and emotional safety, it created a learning environment where students feel supported, respected, and engaged.

Limited Parental Understanding and Involvement as a Barrier to Formative Assessment

The findings revealed that limited parental understanding and involvement emerged a sustainable constrain to the effective implementation of formative assessment. Participants indicated that many parents continue to associate primarily with summative outcomes, such as examination scores, and often overlook the importance of continuous feedback, learning progress, and student development.

Participant 1 shared, *“Parents only care about grades, they ask how many marks their child got, not how much they understood.”* Similarly, Participant 4 stated that, *“I try to clarify learning goals and feedback,*

but parents just want marks. They believe anything else is not real assessment.” These views reflect a prevailing misconception that hinders teachers’ attempts to create a culture of formative learning.

Participant 5 emphasized the impact on students, stating, *“Even when students show improvement based on feedback, their parents disregard it unless it’s reflected in final results. This discourages students.”* Likewise, Participant 8 remarked, *“We provide weekly updates and suggestions, but many parents don’t acknowledge them and follow up.”* Moreover it was concluded by Participant 10 stating that, *“Formative assessment is most effective when teachers and parents collaborate. Without that, it becomes harder to reinforce learning at home.”*

Collectively, the responses suggest that parental misconceptions and disengagement limit the effectiveness of formative practices. In the absence of active parental involvement, the home-school partnership necessary for reinforcing formative assessment strategies remains weak, thereby reducing the long term impact of such assessments on student learning.

Curriculum Rigidity and Misalignment as a Barrier to Effective Formative Assessment Practices

The findings revealed that curriculum rigidity and misalignment with formative assessment principles emerged as a barriers to effective implementation of formative assessment in primary education. Teachers indicted that the curriculum is overly prescriptive and exam-driven, limiting flexibility for formative teaching approaches. Participant 2 shared, *“The curriculum is fixed and exam-driven; it gives no space for experiencing with formative tasks or giving personalized feedback.”* Similarly, Participant 6 stated, *“we are judged by how well we complete the syllabus, not how well the students learn. So we rush through chapters without knowing if they actually understood.”* These views reflect the conflict between a rigid content delivery and the dynamic, responsive nature of formative assessment.

Participant 8 highlighted pacing challenges, saying, *“Even if I want to slow down and use feedback, I feel stuck in a schedule that doesn’t allow it.”* Participants also noted the lack of curriculum-embedded formative tasks, which they considered essential for integrating assessment with instruction.

Overall, these findings highlights that curriculum inflexibility restricts teachers’ autonomy and reduces the effectiveness of formative assessment as an ongoing learning tool.

Ineffective Teacher Peer Collaboration Culture as a Barrier to Formative Assessment Implementation

The findings indicated that the existing culture of teacher peer collaboration substantially influence to implementation of formative assessment practices. Participant descried a professional environment marked by minimal collegial interaction, competitive attitudes, and insufficient opportunities for shared pedagogical dialogue, which collectively hinder the effective implementation of formative assessment.

Participant 3 reported, *“There is very little chance to discuss and share ideas about formative assessment with my colleague,”* highlighting a lack of structured collaborative platforms. Participant 4 similarly noted, *“Some teachers prefer to work alone and don’t engage in peer discussions on assessment practices,”* suggesting the presence of individualistic professional norms. Furthermore Participant 5 asserted, *“Without support from fellow teachers, it is hard to improve how I use formative assessment,”* illustrating the importance of collegial feedback in refining assessment literacy.

Moreover, Participant 7 stated, *“Collaborative planning and feedback sessions would help but are rarely organized, and there are institutional gaps in promoting professional learning communities.”* Participant

9 said that, “*Competition among teachers sometimes discouraged openness about challenges in implementing formative assessment,*” indicating how competitive dynamics can undermine collective learning.

In terms of these findings, such areas of under fulfilling culture of collaboration among peers shows that the issue is a persistent hindering factor when it comes to the application of formative assessment. Lack of organized, conversational and positive professional relationship compliant hindered the efficient implementation of formative assessment practices within primary school contexts.

Enhancing Parental Engagement through Collaborative Communication

Participants highlighted the need for proactive and sustained communication strategies to bridge the gap between home and school regarding formative assessment. Teachers suggested that fostering a collaborative culture with parents is essential to improve the positive impact of formative practices.

Participant 1 Proposed, “*We should organize regular workshops or orientation sessions to explain benefits of formative assessment in simple terms and demonstrate show how parents can support learning at home.*” Similarly, Participant 4 emphasized the value of accessible tools, stating, “*Using visual aids, student portfolios, or short videos showcasing classroom learning can help parents grasp what we are assessing beyond marks.*”

Participants also recommended using mobile-based apps or messaging groups to provide timely updates, feedback summaries and personalized suggestions. As Participant 8 noted, “*When we share feedback in real-time about student learning through WhatsApp, some parents start asking questions about their child’s progress and show more interest.*”

Additionally, building trust emerges as a key factor, as remarked by Participant 10, “*We need to make parents like partners, not outsiders. If they see purpose of our methods, they will gradually support them.*”

The findings suggest that consistent, transparent, and culturally relevant communication strategies can empower parents to become active stakeholders. By demystifying formative assessment and reinforcing its value through dialogue, teachers believe that meaningful parental involvement can be cultivated, ultimately enhancing the effectiveness of formative practices in primary education.

Integrating Formative Assessment into Curriculum Planning through Teacher-Led Customization and Stakeholder Collaboration

The findings highlight that empowering teachers to customize and embed formative assessment within lesson planning effectively addresses curriculum rigidity. Teachers emphasized the importance of integrating curriculum and formative assessment collaboratively, ensuring alignment with classroom realities.

Participant 2 noted, “*If we were allowed to modify lesson plans slightly based on student responses, we could embed formative assessment naturally.*” Participant 3 added, “*Curriculum needs to leave some space for teachers’ judgement, if I see my class struggling, I should be able to pause and review before moving on.*” These perspectives advocate for flexible pacing guides that respond dynamically to students’ learning needs through formative assessment.

A key recommendation was involving teachers in curriculum response planning related to assessment. Participant 5 shared, “*We need planning periods where teachers sit together to redesign parts of the*

syllabus to fit our students' pace and feedback." Participant 7 stressed, *"If our monthly plans had built-in checkpoints or reflection days, it would make formative assessment a natural part of teaching rather than extra work."*

Teachers urged curriculum developers and policy planners to actively consult frontline educators. Participant 9 remarked, *"We know what works in our classrooms. If response planners talk to us before making policies, formative assessment can be part of the curriculum from the start."* Excluding teachers' risks disconnecting policy from formative assessment practice.

In sum, teacher-led curriculum customization, supported by flexible institutional frameworks and inclusive planning with response planners, fosters integrated, sustainable formative assessment in primary education.

Cultivating Collaborative Professional learning communities to Enhance Formative Assessment Implementation

The findings suggest that to address ineffective culture of peer collaboration, which hinders the effective implementation of formative assessment in schools, participants recommended fostering professional learning communities (PLCs) as a key strategy.

Participant 3 emphasized, *"Regularly scheduled team meetings focused solely on formative assessment would create a safe space to share challenges and success,"* highlighting the need for dedicated time to collaborate. Participant 5 added, *"Peer observation sessions where teacher can observe each other implement assessments and give constructive feedback would boost confidence and skill development."*

Another solution involved leadership support in building a collaborative culture. Participant 5 indicated that, *"Leaders of schools must promote teamwork effectively through rewarding and recognizing collaborative work in terms of assessment practices."* On the same note, formal mentorship programs were also recommended by Participant 7, as she said *"pairing more experienced teachers with beginners can also help them to share their knowledge and develop trust."*

Moreover, Participant 9 proposed the combination of technology platforms to maintain peer discussion: *"It is possible to use group chats or internet forums where one can continue to discuss formative assessment practices even outside the face to face occasions."* This mobility would be able to surpass the schedules.

These responses, in combination, indicate that technology-based, structured and supportive professional networks should be designed. Competitive individualism can be converted into team commitment by creating a culture in which teamwork becomes the norm to provide better operatives by doing formative assessment in primary schools as a result of teaching and learning outcomes eventually.

DISCUSSION

The findings of this study illuminate the potentials and difficulties of formative assessment implementation at primary school in Sukkur. In this established formative assessment, teachers do not simply see it as a tool to assess students learning, but as a very much reflective pedagogical tool in making instructional choices. This point of view follows the initial definition by Black and William (2009) according to which formative assessment is the perpetual process based on the concept of receiving the feedback and integrating the aspects of the guidance regarding teaching and learning. The thoughts of the teacher to adjust what they are teaching as they get indications of confused students is very apparent to those actions that Schon (1983) refers to as reflection-in-action where evidence found in the classroom dictates and influences delivery of lessons in the classroom.

Furthermore, the participants explained that formative assessment is a practice which leads to closer and more important relationships with students. With the frequent feedbacks, dialogic interactions and supporting the emotions, the roles of the teacher no longer serve as an assessor but rather a learning facilitator. These insights resonate with Heritage (2010), who argues that formative assessment strengthens student-teacher connections by making assessment a shared, supportive process. When teachers act as co-learners, students feel more comfortable expressing learning difficulties, creating a crucial environment for meaningful learning to occur.

However, the findings also highlight several context-specific challenges in implementing formative assessment at the primary level. A prominent issue is the limited parental understanding and involvement in formative practices. Many parents in the study perceived academic success primarily through results and grades, overlooking the development value of continuous feedback. This aligns with the concerns raised by Jang (2014), who argues that in contexts dominated by summative assessment cultures, parental support for formative assessment practices remains limited unless schools make conscious efforts to clarify purpose and benefits of such assessments. The observed lack of collaboration between parents and schools undermines the reinforcement of formative assessment practices at home, thereby reducing their overall impact on students' learning and growth in primary education.

Curriculum rigidity also emerged as a structural barrier that hindered the effective implementation of formative assessment in primary classrooms. Teachers' concerns about fixed syllabus and exam-driven instruction hinder their ability to balance curriculum demands with innovation assessment practices. Torrance and Pryor (2001) argue that requires curriculum flexibility and teacher autonomy to succeed. Inflexible curricular demands force teachers to focus on content coverage rather than fostering deep learning, which hinders formative assessment from becoming a consistent, embedded practice. Furthermore, the absence of curriculum-aligned formative tasks further hinders the integration of formative assessment, limiting ongoing feedback and personalized learning opportunities.

Also the school culture affects the use of formative assessment. This research identified that the lack of the collaborative organizational systems, e.g., professional learning communities (PLCs) in the primary school context resulted in discontinuous and individualized assessment practices. This is in support of Vescio, and Adam, (2008) who presume that PLCs are effective in enriching assessment because of shared learning. In a similar way, Stiggins (2005) states that assessment literacy is also built as a result of a peer conversation and mentoring. Nevertheless, in this situation, competitive and individualistic school setting was a barrier to collaboration that limited the effectiveness of formative assessment.

These obstacles did not stop the teachers working at primary schools in proposing practical solutions based on the context. They also highlighted the structure necessary to improve the participation of parents in communication with clarity such as use of mobile messaging, visual demonstration and training sessions. The suggestions adhere to the findings of the study by Brookhart et al. (2019), who recommend practical and culturally responsive methods of conversation in order to involve families in assessment. And likewise, the demand of customizing the curriculum and decentralizing planning to teachers expresses a wish that lower level reforms be pursued. When teachers are involved in curriculum development, formative assessment is simplified because it would be adjusted to the reality in classrooms, which was suggested by Shepard (2000) who states that teacher authority should be involved in the reform of the assessment.

The fact that collaborative professional environment should also be constructed is also confirmed by these findings. The recommendations that include team planning meetings, peer observation, and digital platforms to discuss are manifestations of an understanding of sustainable change. A teacher does not always have to be a skilled assessor to implement formative assessment of high quality; institutional culture promoting professional conversation is also important. According to Stiggins (2002), formative assessment

also thrives in a context where a teacher has a collective responsibility in the learning of their students.

Finally, even though the teachers are aware of the transformational power of formative assessment, the imposed curriculum rigidity, lack of parental awareness and poor peer interaction defines the respective system of operation. Overcoming such obstacles using inclusive design, parental communication and professional learning communities in order to transform formative assessment into a sustainable, effective part of primary education. The analysis of the research is consistent with the fact that the effectiveness of formative assessment integrated into a contextualized embedded form and supported by joint efforts of professionals increases teacher learning as well as student achievement.

CONCLUSION

The current study explored the perception, practices and challenges of primary school teachers regarding the use of formative assessment at Sukkur. The findings revealed that teachers view formative assessment not only as a tool for evaluating student progress but also as a means of reflective teaching, responsive instruction, and relationship building. However effective implementation of formative assessment is hindered by contextual barriers such as curriculum rigidity, limited parental involvement, and insufficient peer collaboration. This study addresses a gap in the literature by focusing on a previously under-researched region Sukkur, Sindh, Pakistan and employing qualitative method to capture rich, localized teacher experiences. Unlike early quantitative studies, this research offers in-depth contextualization of formative assessment within real classroom environments. The study contributes to academic and policy discourse by suggesting practical strategies, such as collaborative curriculum planning, professional learning communities, and culturally responsive parental engagement. These insights advance understanding of how formative assessment can be sustainably integrated into primary education in Pakistan. Ultimately, this research highlights the transformative potential of teacher-led, context-sensitive assessment practices to improve both teaching effectiveness and student learning outcomes.

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