Disclosure of Formative Assessment Practices in the Merdeka Curriculum

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ARTICLE INFO

ABSTRACT

Purpose – This research aims to analyze the experiences of middle school teachers in implementing formative assessment within the Merdeka Curriculum framework.

Methodology—A qualitative case study was conducted from August to October at a Middle School in Bima City, West Nusa Tenggara, Indonesia. Ten Teacher Facilitators implementing the Merdeka Curriculum served as respondents. Data were collected through in-depth interviews, direct observations, and document analysis, then validated through triangulation and cross-checking. The data analysis included collection, condensation, display, and conclusion drawing.

Findings – The findings indicate that teachers effectively utilized various formative assessment methods, including direct observation, quizzes, questionnaires, written tests, Q&A sessions, assignments, performance assessments, portfolios, and feedback. Feedback strategies addressed students' feelings, material reflections, and test evaluations. Students responded positively, showing acceptance, satisfaction, and increased motivation. The continuity of formative assessment improved learning activities and participation. Teachers employed engaging strategies such as feedback, self-evaluation, and peer assessment, while assessment data were utilized for result analysis, lesson planning, and differentiated learning. Despite challenges in question design, format analysis, and assessment selection, teachers recommended regular formative assessment implementation, enhanced student engagement, constructive feedback, professional competence improvement, responsiveness to student needs, and parental involvement.

Significance – This study provides insights into the practical application of formative assessment in the Merdeka Curriculum, offering strategies to enhance teaching effectiveness and student engagement while addressing challenges faced by educators in resource-limited contexts.

INTRODUCTION

Education is a key aspect of national development. In the current era of globalization and rapid technological advancement, educational reform is imperative to produce competent graduates ready to face the complexities of the workforce. In Indonesia, the Merdeka Curriculum has been introduced to enhance flexibility, relevance, and student empowerment in learning (Daga, 2021; Fadlie, 2023; Rombe et al., 2023). This curriculum envisions creating a joyful and high-quality learning environment (Sihombing et al., 2021).

The Merdeka Curriculum includes extracurricular activities, the Pancasila student profile strengthening project, and extracurricular activities (Anggara et al., 2023). Subjects include religion, Pancasila education, the Indonesian language, mathematics, science, social studies, English, physical education, informatics, and arts and crafts (Eva Ervia et al., 2024). Despite offering greater autonomy, effective implementation still requires clear assessment strategies.

The independent learning policy introduced in Circular Letter No. 1 of 2020 emphasizes student autonomy and innovation in learning, aiming to develop critical thinking skills aligned with national educational goals (Astuti et al., 2024). This policy is particularly relevant in the era of the fourth industrial revolution, where independent thinking is crucial for technological application in education (Jasiah et al., 2024; Yuhastina et al., 2020). To support this vision, teachers play a fundamental role as knowledge transmitters and facilitators in creating an engaging and effective learning environment (Specia & Osman, 2015; Simonson et al., 2019)).

One of the key aspects of the Merdeka Curriculum is assessment. Assessment is not merely an administrative requirement but a vital tool to enhance learning quality (Festiyed et al., 2022). Among various assessment types, formative assessment has gained attention due to its potential to provide continuous feedback, helping teachers and students track progress and improve learning outcomes (Irons & Elkington, 2021). It is designed to be adaptive and reflective of student diversity, ensuring a more individualized approach to learning (Konopasek et al., 2016).

Despite its importance, implementing formative assessment under the Merdeka Curriculum poses significant challenges, particularly for teachers. In Bima City, West Nusa Tenggara, teachers struggle with designing effective formative assessment instruments and lack sufficient institutional support and training. Furthermore, time constraints and limited resources hinder their ability to integrate assessment effectively into daily teaching practices (Harahap & Nazliah, 2019). These issues are exacerbated by the absence of systematic impact assessments of policy implementation, as highlighted by Adusei-Asante (2017).

Assessment should continuously reflect student achievements over time (Supovitz, 2009; Tedesco et al., 2014). However, technical challenges remain, such as developing appropriate assessment instruments and monitoring assessment quality (Wardani et al., 2023). Without addressing these challenges, teachers may struggle to align their assessment practices with the objectives of the Merdeka Curriculum.

Research findings indicate that various types of assessments are used in the Merdeka Curriculum, including formative and summative assessments (Ardiansyah et al., 2023; Baruta, 2023). While formative assessment is expected to help students track their learning progress, its effectiveness depends on how well teachers integrate it into classroom practice (Bennett, 2011; Huhta, 2008; Lucariello et al., 2014; Wongwatkit et al., 2017). Given the importance of formative assessment in the Merdeka Curriculum, a gap remains in understanding its practical implementation in Indonesian schools, particularly junior high schools. Previous studies have explored teacher readiness in formative assessment and the complexities of assessment in the Merdeka Curriculum. However, in-depth research is still needed on how formative assessment can be effectively designed and applied to meet curriculum expectations.

This research aims to comprehensively analyze formative assessment practices in junior high schools under the Merdeka Curriculum. It will focus on teacher feedback, student responses, assessment continuity, student engagement, formative question design, use of assessment data, and challenges teachers face. This study will offer practical recommendations to enhance teachers' ability to implement formative assessment effectively. Therefore, the central research question is: How are formative assessment practices realized in implementing the Merdeka Curriculum in junior high schools?

METHODOLOGY

Research Design

This study employs a qualitative model with a case study approach to understand formative assessment practices in implementing the Merdeka Curriculum by lead teachers. This method is suitable for this research as it allows for a realistic and in-depth depiction of challenges encountered in the field. Creswell states that a case study approach is an inquiry strategy researchers use to explore in-depth programs, events, activities, and processes involving one or more individuals (Creswell, 2019). Cases in the research are delimited by time and activities. The researcher continuously collects detailed information using various data collection procedures.

Participants

The participants in this study are lead teachers. Based on data from the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, there are 37 lead teachers at the junior high school level in the city of Bima. Participant selection in this study is based on identified issues and research objectives, utilizing the purposeful sampling technique. The goal of selecting these participants is to choose teachers with critical insight into formative assessment practices in the context of the Merdeka Curriculum.

In this study, 10 lead teachers were selected based on the following considerations: 1) teachers who have direct experience in formative assessment practices within the Merdeka Curriculum, have attended training, workshops, and conferences, and regularly mentor other teachers; 2) these teachers come from diverse backgrounds or teach subjects such as Natural Sciences, Mathematics, Indonesian Language, History, and English, with a minimum of five years of teaching experience; 3) the number of 10 participants was chosen based on the principle of saturation in qualitative research, meaning that information obtained begins to repeat and no longer generates significant new findings, and 4) 10 participants were selected based on the concept of information power in qualitative research, which suggests that sample size does not need to be large but should depend on the relevance and depth of the information provided by participants. With these considerations, the selection of 10 participants in this study is deemed sufficiently representative to provide an in-depth understanding of implementing formative assessment within the Merdeka Curriculum by lead teachers in the city of Bima.

Once participants are identified, the researcher schedules interview times and locations by contacting them through Google Meet. The purpose is to coordinate suitable schedules to ensure a conducive interview atmosphere and obtain comprehensive and valid data. After participants agree to the interviews, the interview process is conducted. Participants in this study are labeled with the initials: Teacher – SR, Teacher – INB, Teacher – AT, Teacher – ZA, Teacher – LAV, Teacher – KR, Teacher – NI, Teacher – EDH, Teacher – IF, and Teacher – KH.

Data Collection and Research Instruments

Information was gathered spanning three months, starting in August and concluding in October 2023. The data was obtained through structured interviews, direct observation, document analysis, and a literature review aligned with the research theme. The interview instrument used is a guide containing 10 questions, with a smartphone as a voice recorder, writing tools, and a notebook. Teachers respond to the questions through an interview sheet covering 1) integration of formative assessment, 2) formative activities in the classroom, 3) formative feedback, 4) continuity of formative assessment, 5) student participation in formative assessment, and 6) student responses to formative feedback. Data collection is also done through non-participant and open observations, utilizing 30-minute observations during teaching sessions from several lead teachers as participants over 2 months.

Data Validity

The validity of the research data is ensured through extended time, diligence, keen observation, and triangulation. Triangulation involves comparing information from observation and interviews. Additionally,

comparisons are made between interview results and student performance report documents. Finally, observational and interview data are compared over time via WhatsApp with the participants.

Data Analysis

This study employs a qualitative descriptive analysis. The researcher elaborates on interview data for transcription, assisted by digital data from interview recordings, field observation notes, and relevant literature. Data analysis follows the model proposed by Huberman and Saldana (Huberman, 2014) with the following stages: 1) data collection, involving participant verification on the school lead teacher platform kemdikbud.go.id, and implementing various data collection methods; 2) data condensation is performed collaboratively by the research team during mini FGD activities focusing on reading data, identifying themes or aspects, keywords, and summarizing interview data descriptions (presented in tables 1 to 8). The researcher's focus, in this case, is data relevant to research questions; 3) presentation research data results are presented in the form of tables containing findings and brief descriptions as key arguments from respondents, visualized in a word cloud generated from the R program and mapped using CmapTools software. Packages installed in the R software for this research include tm, word cloud, RcolorBrewer, and stringer (Gefen et al., 2017; Ohri & Ohri, 2013), and 4) data verification/conclusion verification is performed repeatedly to ensure the accuracy of respondent answers, and verification results are presented in a narrative form by the research team meticulously.

FINDINGS

The data for this research were collected at a junior high school in Bima, West Nusa Tenggara, Indonesia. A total of 10 lead teachers responded to the practice of formative assessment usage. To understand each teacher's practices universally and comprehensively, the perspectives of teachers, based on data analysis and focused observations on 1) integration of formative assessment; 2) formative activities in the classroom; 3) formative feedback; 4) continuity of formative assessment; 5) student participation in formative assessment, and 6) student responses to formative feedback were considered. Below is a description of the interview summary with respondents:

Table 1. Formative Assessment Integration and Formative Activities

Aspect	Classification
Implementation Time	Beginning during the learning process and ending with each learning topic.
Implementation Methods and Activities	Observing student activities during the learning process, Quiz at the end of the learning process, Observation and questionnaire, Written test (Essay questions), Q&A (Oral test), Assignments, Performance assessment in group discussion activities, Portfolio.
Feedback	Evaluating learning outcomes for each subject (evaluation of learning objectives achievement), Next learning flow for teachers (identifying students' learning needs, obstacles, or difficulties), Obtaining information for follow-up monitoring and self-correction plans (learning progress information).

Based on Table 1, it is evident that the integration of formative assessment is crucial in daily teaching to enhance the quality of learning. Teachers can utilize periodic evaluation and real-time methods to design more adaptive teaching, while students can use feedback to improve their understanding and skills. Well-informed follow-up planning can have a positive impact on overall learning outcomes. As an interpretation of the interview findings, refer to Figure 1.
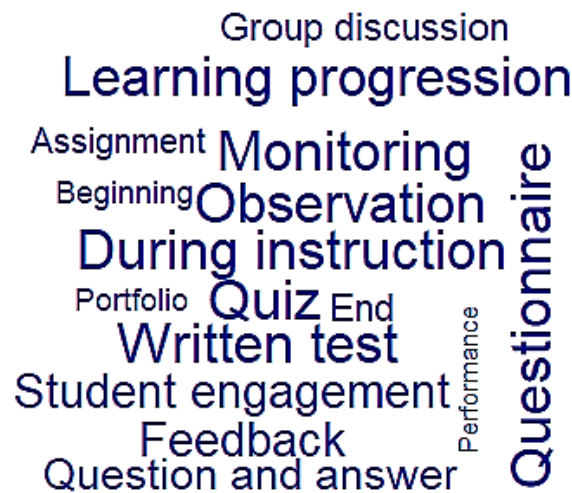
Figure 1. Integration of Formative Assessment and Formative Activities

Table 2. Exploring Dimensions of Teachers' Experience in Formative Assessment Practices

Theme	Aspect	Example Respondent Descriptions
Giving Feedback from Teachers on Formative Assessment Results	Asking about feelings and difficulties Reflection and material discussion Evaluation of test results and grouping Appreciation and praise Test techniques and meaningful questioning Direct and positively valued feedback in class	Teacher – SR: The teacher actively inquires about students' feelings regarding the learning material. Teacher – INB: The teacher listens and seeks to understand the difficulties faced by students.
Student Response to Feedback from Formative Assessment	Acceptance of feedback and student involvement Expression of satisfaction Creative response Learning motivation	Teacher – AT: Students provide brief answers or sticky notes as creative responses.
Continuity of Formative Assessment in the Learning Process	Improvement of learning activities Q&A activities Consistency and routine assessment Feedback on formative results Student participation in assessment Continuous observation	Teacher—ZA: Observation is conducted throughout the learning process to ensure it proceeds according to the plan, monitor student progress, and adjust the learning approach.
Approaches and Strategies to Engage Students in Formative Assessment	Feedback from students Self-evaluation with result information Self-assessment tools Peer assessment Rapid integration of assessment results	Teacher – LAV: Students assess themselves and provide feedback to peers.
Teachers Designing Formative Questions Relevant to Local Contexts, Culture, and Regional Values	Travel experience and local wisdom Adjustment to student needs and characteristics Surveys and questionnaires based on local contexts	Teacher – KR: Bringing students to historical sites and integrating travel experiences, collaborating with local cultural experts to seek cultural references and local values.
Use of Formative Assessment Data to Plan Learning Improvements	Analysis of results and remedial processes Appropriate lesson design Reference material for the subsequent learning Basis for following learning strategies Modification of lesson plans Improvement of already good sections Guidance for differentiated learning Analyzing and identifying weaknesses Assessment function in improving effectiveness Basis for summative assessment	Teacher – NI: Using data from formative assessments to modify and improve future lesson plans.
Specific Challenges in Implementing Formative Assessment	Difficulties in creating questions Difficulties in designing assessment format and analysis	Teacher – EDH: Difficulties in designing the format of formative assessment, analysis, and

in the Context of the Merdeka Curriculum	Teachers in the comfort zone and unaccustomed Lack of creativity and innovation among teachers Difficulties in choosing creative assessments	interpreting data by the principles of the Merdeka Curriculum.
Teacher Recommendations on the Use of Formative Assessment in the Merdeka Curriculum	Implement formative assessment regularly Involve students in the assessment process Adapt assessment to learning objectives Use various assessment methods Provide constructive feedback Use assessment data for learning improvements Collaborate and share experiences with colleagues Continuously improve your professional competence Responsive to student needs Parental involvement in the assessment process	Teacher – IF and Teacher – KH: Collaborate with fellow teachers and learn best practices from colleagues who have successfully implemented formative assessment.

The interpreted research findings in Tables 1 and 2 show that the experience of formative assessment practices in implementing the Merdeka Curriculum in junior high schools can be illustrated as a concept map (Cmap). This concept map reflects teachers' experiences in applying formative assessment in schools.
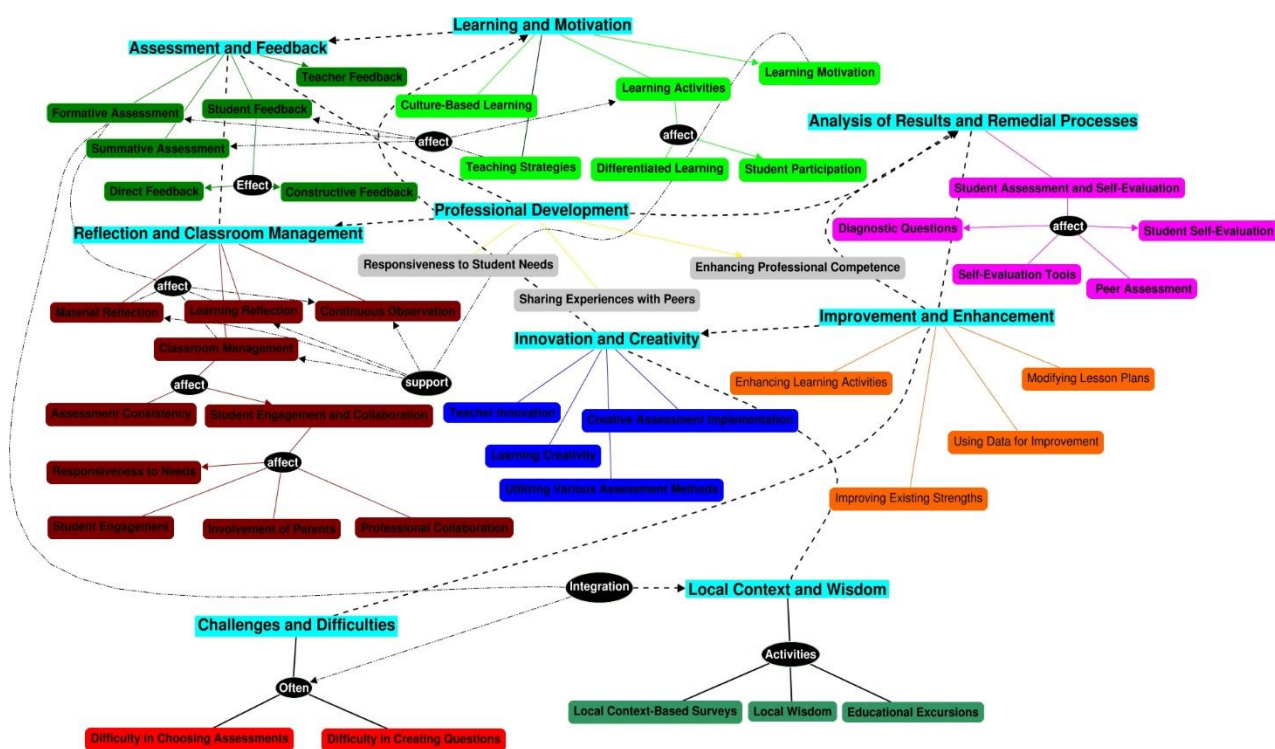
Figure 2. Teacher Experience in Formative Assessment Practices

This concept map's elements are closely connected, indicating the complexity of formative assessment practices. Interconnected elements include key aspects of formative assessment practices, such as evaluation methods, the use of assessment instruments, student involvement, and the utilization of assessment results data. Connecting lines between elements reflect the interrelations and interactions among these concepts in the context of the Merdeka Curriculum.

Evaluating assessment methods and student engagement is crucial in shaping subsequent learning designs. Analyzing results and remedial processes, which includes tools like diagnostic questions, self-evaluation, and peer assessment, provides educators with insights into students' understanding and learning gaps. This evaluation directly influences teaching strategies and differentiated learning, ensuring that instructional approaches align with student needs. Additionally, student participation in assessment fosters metacognitive awareness, allowing them to reflect on their learning progress and challenges actively.

These findings also highlight the impact of feedback and classroom management on formative assessment. Effective feedback mechanisms, such as teacher feedback, peer review, and constructive

critiques, contribute to developing a responsive learning environment. Moreover, classroom reflection and professional development ensure educators continuously refine their assessment practices based on student responses. The ability to modify lesson plans and instructional strategies based on real-time assessment data further supports an adaptive and student-centered approach to learning.

Furthermore, innovation and creativity in assessment practices emerge as a critical factor in enhancing student learning experiences. Educators explore new assessment approaches, active learning strategies, and integrated assessment techniques to improve engagement and skill development. These innovative methods align with the principles of the Merdeka Curriculum, which emphasizes contextual learning and the integration of local wisdom in the teaching process. However, challenges remain, including difficulties in selecting appropriate assessments and formulating practical questions. Addressing these challenges requires continuous professional development and collaboration among educators.

Overall, the concept map illustrates how formative assessment serves as more than just a tool for measuring student learning—it acts as a dynamic mechanism for enhancing instructional effectiveness, fostering student engagement, and promoting continuous learning improvements. The interactions between assessment evaluation, student involvement, feedback, innovation, and local context integration create a sustainable cycle of educational enhancement, reinforcing the importance of formative assessment in achieving meaningful and personalized learning experiences.

DISCUSSION

Integration of Formative Assessment

In implementing formative assessment to categorize evaluation practices, several key aspects have been identified. Firstly, the timing of formative assessment is carried out at the beginning, during the learning process, and at the end of each learning topic. The methods of implementing formative assessment and formative assessment activities involve observing student activities, quizzes, observations, written tests, Q&A, assignments, performance assessments in group discussions, and portfolios. The goals of formative assessment implementation include evaluating learning outcomes for each subject, guiding the next learning flow for teachers, obtaining information for follow-up plans, monitoring, and self-correction. This focus aligns with the Merdeka Curriculum approach, which emphasizes adapting learning to individual student needs.

Teachers play a crucial role in encouraging students to self-assess and understand their progress in learning. One method is to seek feedback and criticism from students regarding assessment results, including the difficulty level of the given questions. Students also respond well to the provided formative feedback, as evidenced by their honesty in self-assessment.

In integrating formative assessment, teachers emphasize the need for contextually relevant methods to the learning material. According to Phongsirikul (2018), teachers are mainly required to assess students' progress and achievements, making assessment an integral part of a teacher's job. These methods include Q&A activities during the learning process, observation, and project-based assignments. The research findings indicate that most teachers integrate formative assessment into their daily teaching. This reflects educators' commitment to monitor student progress continuously. As emphasized by Blazevic (Blažević, 2022), the assessment process requires teachers to be consistent and fair to create a positive learning environment that contributes to the development of students' enthusiastic and proactive attitudes toward education.

Formative assessment can be a powerful tool for identifying areas that need improvement (Brookhart, 2013; Stiggins & DuFour, 2009), which, in turn, can help educators plan more effective and relevant learning (Cizek et al., 2019). This research's findings are supported by Shute's (2008) research, indicating that formative feedback is information given in response to students' actions in learning, such as verifying answers, explaining correct answers, providing guidance, and giving examples of work. The success of formative feedback in promoting learning is influenced by students' characteristics and task-learning aspects (I. Lee, 2007; Wanner & Palmer, 2018).

The integration of formative assessment as an effective tool for periodically measuring students' understanding (Andersson & Palm, 2017). Teachers can better understand students' progress by combining various methods. Moreover, this integration allows teachers to provide more contextual and beneficial feedback, as they can directly see how students respond to learning materials in various contexts. It is crucial to note that integrating formative assessment is not just an evaluation tool but also a means to gain critical knowledge about the conditions of the teaching and learning process, especially students' achievements and challenges.

Carreira (2012) explains that formative assessment used during the teaching process is an essential tool in addressing learner diversity and an integral part of the overall assessment process, enhancing teacher practices, especially in providing feedback to students (Beesley et al., 2018; Haug & Ødegaard, 2015). Although this research's results differ from Wongwatkit et al.'s (Wongwatkit et al., 2017) findings that planned formative goals by teachers often go unrealized, this is evident from formative assessment practices not aligning with the teachers' pedagogical practices. Therefore, educators can personalize their learning more to align with the Merdeka Curriculum's spirit.

Formative activities in the classroom reflect teachers' efforts to create meaningful and compelling learning experiences for students. The importance of providing questions relevant to the learning material demonstrates teachers' awareness of students' needs to practice and master taught concepts. Such formative activities provide direct experiences that can enhance students' understanding concretely. This aligns with Wiliam's (Wiliam, 2010) research, which shows that practical formative assessment can positively influence student achievement and help teachers adjust their teaching. Similar findings are also reported by Brink & Bartz (Brink & Bartz, 2019), Andersson & Palm (Andersson & Palm, 2017), Curry, Mwavita, Holter, & Harris (Curry et al., 2015).

Furthermore, project-based approaches with peer assessment indicate the adoption of practical application-oriented learning methods and collaborative skill development. Students sharpen their understanding and acquire social skills such as cooperation and communication. Integrating formative activities with group discussions adds dimension to learning (Hagos & Andargie, 2023; Lyon et al., 2019). It creates space for student interaction, exchanging ideas, and discussing challenging concepts. Gedamu and Shewangezaw's (Gedamu & Shewangizaw, 2020) research indicates that teachers believe positively in integrated group work assessment, which is highly effective.

Teacher Feedback on Formative Assessment Results

Formative feedback is emphasized as a key element in improving student learning. The importance of this feedback lies in its primary role in providing direct information to students about their performance during the learning process, allowing students to identify strengths and weaknesses in their learning. Teachers can provide feedback on formative assessment by enhancing student learning through dialogical practices, acknowledgment of students' feelings, material reflection, and test result evaluation. Effective feedback identifies errors and provides constructive guidance for improvement and the development of learning strategies (Nicol & Macfarlane-Dick, 2006).

Hargreaves also emphasizes the significance of specific, constructive, and improvement-oriented feedback (Hargreaves, 2013), which aligns with providing constructive comments and appreciating student efforts. Black and Wiliam (Black & Wiliam, 2018) consider formative assessment as a tool to map student learning and adjust teaching strategies, emphasizing timely, specific, and action-oriented feedback. Acknowledging student efforts, specific praise, and creating a safe learning environment can enhance student motivation and confidence (van der Kleij, 2019). Timely and directed teacher feedback helps students overcome misunderstandings and improve understanding (Araceli Ruiz-Primo & Furtak, 2006). Learning psychology theories suggest understanding students' feelings increases intrinsic motivation (Deci & Ryan, 2012). A positive learning environment and responsiveness to students' emotional needs also motivate learning (Reeve, 2009).

Formative research indicates that material reflection and direct feedback accelerate student understanding (McCallum & Milner, 2021; Weurlander et al., 2012). Embracing constructivism concepts,

teachers can use feedback to motivate students, help them think critically and creatively, and develop problem-solving skills (Mohammed et al., 2020; Palmer, 2005). By integrating these concepts, teachers must develop practical communication skills, create a positive classroom atmosphere, and pay attention to students' psychological aspects through feedback. Thus, a meaningful and impactful learning experience can be created for students.

Student Response to Feedback from Formative Assessment

Students' response to teacher feedback significantly impacts learning motivation and academic achievement. Self-esteem theory explains how students' positive responses to feedback can be interpreted as internal driving factors for learning. Ahmad, Saeed, & Salam's (Ahmad et al., 2013) research indicates that students receiving corrective feedback from teachers tend to achieve better academic outcomes. Positive student responses to feedback serve as an indicator of the effectiveness of that feedback. Positive responses can also enhance students' learning motivation, aligning with (Selvaraj et al., 2021) Selvaraj, Azman, and Wahi's research.

Aslam et al. 's (2023) study shows that constructive feedback can boost students' learning motivation through two main mechanisms: increasing students' self-confidence and creating learning enthusiasm. Zedan's (2021)research confirms a positive and significant relationship between student feedback and learning motivation, academic achievement, and classroom climate, helping them improve student performance (Watts & Hodgson, 2015).

Continuity of Formative Assessment in the Learning Process

The continuous implementation of formative assessment significantly influences learning activities, assessment consistency, and student participation. Process-focused learning theories suggest that continuous observation and ongoing feedback can enhance learning effectiveness (Harrison, 2009). The continuity of formative assessment creates opportunities for students to actively engage in the teaching and learning process by addressing individual learning needs.

Key factors in the continuity of formative assessment include teachers' awareness of the importance of continuous evaluation. Consistent evaluation provides a comprehensive overview of students' development over time. Teachers utilize ongoing observation to track students' progress and identify learning difficulties at an early stage. This enables them to make immediate adjustments, such as modifying instructional strategies, differentiating learning activities, and providing targeted interventions for students who need additional support. By systematically using data from formative assessments, teachers can identify trends and patterns in student achievement. This information serves as the basis for adjusting lesson plans, focusing on areas that need additional attention, and providing challenges according to students' skill levels.

For example, suppose continuous observation reveals that a group of students struggles with a particular concept. In that case, teachers can implement additional scaffolding strategies, such as peer-assisted learning or targeted review sessions. Conversely, if students demonstrate strong mastery, educators can introduce extension activities to deepen their understanding and encourage higher-order thinking skills. This approach helps ensure that each student can achieve the set learning goals.

Continuity in formative assessment not only focuses on students' errors or deficiencies but also on successes and potential improvements. Teachers can celebrate small achievements and reinforce positive learning behaviors, fostering motivation and encouraging student growth. Teachers can provide appropriate support, reinforce students' strengths, and proactively respond to changes in their understanding of the learning material. By embedding formative assessment into daily classroom practices, educators create a dynamic learning environment where students receive timely feedback and are encouraged to take ownership of their learning progress.

Creating a positive classroom routine is important because it establishes an environment that supports independent, inclusive, safe, and supportive learning, allowing students to feel comfortable taking initiative and asking questions. Involving students in self-assessment and peer assessment helps students gain a deeper understanding of the material and develop self-assessment skills (Dungan & Gronich Mundhenk, 2006; HARRISON et al., 2015; Willey & Gardner, 2010). Through structured peer discussions and reflective journaling, students evaluate their own learning and learn from their peers' perspectives, strengthening their analytical and critical thinking abilities.

Approaches and Strategies for Engaging Students in Formative Assessment

Implementing formative assessment approaches involving students, including feedback, self-evaluation, peer assessment, and quickly integrating assessment results. In line with constructivist theory, the active role of students in learning is emphasized. Kearney demonstrates that involving students in self-evaluation and peer assessment effectively improves understanding and learning engagement, promotes ownership of learning, and develops metacognitive skills and productive interaction with peers (Kearney, 2013).

Deneen & Hoo (2021) present strong evidence that involving students in self-assessment and peer assessment yields various benefits, such as improved assessment competence, motivation, deeper understanding, social skill development, and better teacher-student relationships. Chen (2010) also states that involving students in self-evaluation and peer assessment can enhance their understanding and engagement in learning. Panadero et al. (2016) emphasize that self-assessment and peer assessment help students develop metacognitive skills, cooperation, and collaboration. Lee et al. (2010) state that students develop metacognitive skills such as self-awareness, self-regulation, and effective learning strategies through reflection and self-assessment. Hargrove (2012) adds that engagement in assessment trains students to think critically about their thinking (metacognition), analyze thinking processes, identify strengths and weaknesses, and develop strategies to improve overall learning.

Teachers Design Formative Questions Relevant to the Local Context

This research suggests that meticulous teachers who design formative questions relevant to the local context, culture, and values of the Tourism Experience Area and Local Wisdom significantly impact student learning. This approach reflects the teacher's profound understanding of the student's learning environment, creating more meaningful learning by connecting lesson content with daily life and local cultural values. Involving students in excursions to historical sites and collaborating with local cultural experts adds a practical dimension to learning and enhances students' understanding and appreciation of local cultural heritage embedded in the learning material. As Supovitz and Turner (2000) expressed, local wisdom can be a valuable learning resource for students.

Collaborating with local cultural experts provides deep insights into local values and traditions and ensures that the designed formative questions accurately and profoundly reflect local wisdom. Additionally, adjustment strategies using surveys and questionnaires based on the local context help teachers understand students' needs and characteristics better. With a deeper understanding of student profiles, teachers can design formative questions that align with students' levels of understanding and interests, thereby enhancing learning effectiveness. Formative questions relevant to the local context, culture, and values can encourage students to think critically, solve problems, and construct their knowledge (Supovitz & Turner, 2000).

Formative questions related to the local context, culture, and local values can motivate students to engage in the learning process actively, enhancing learning motivation as students feel they play a crucial role in their learning. Research results indicate that integrating formative questions relevant to the local context creates an inclusive and engaging learning environment. Students are more motivated to learn when they see the connection between the learning material and their real-life experiences, increasing understanding and learning motivation. This approach can serve as a foundation for learning and relevant teaching methods, improving positive interactions between students and learning and sustaining a positive impact on learning outcomes.

Use of Formative Assessment Data for Planning Learning Improvements

Using assessment data to plan learning improvements, such as results analysis, appropriate learning design, and modifications to the learning plan, reflects continuous improvement. This research illustrates that the effective utilization of formative assessment data has a significantly positive impact on improving learning design. Analyzing results and the remedial steps teachers take helps focus improvement efforts more effectively. Teachers who can use formative assessment effectively are proven more capable of

identifying student needs and providing accurate feedback (Brookhart et al., 2010).

Firstly, formative assessment data provides a deep understanding of students' mastery of learning material. By leveraging this information, teachers can adjust learning designs better to suit students' levels of understanding and needs. Additionally, this data serves as valuable material for subsequent lesson planning, enabling teachers to focus on areas needing more attention and design more targeted learning materials. Using formative assessment data also helps teachers develop more effective learning strategies, especially for students experiencing learning difficulties (Brookhart et al., 2010).

Teachers can use formative assessment data as a solid foundation to further develop learning strategies. Data analysis opens opportunities to select the most effective learning methods to improve students' understanding. Formative assessment data also serves as a basis for modifying implemented lesson plans, allowing teachers to adjust strategies and materials to be more responsive to students' needs. In addition to identifying weaknesses, this data provides insights into successful learning aspects that can be strengthened to improve overall learning impact. Using formative assessment data also supports differentiated learning, allowing teachers to provide additional assistance to students in need while offering more challenging tasks to students who have a good understanding (Westbroek et al., 2020).

Challenges in Implementing Formative Assessment in the Context of Merdeka Curriculum

The findings of this research comprehensively depict various challenges educators face in implementing the formative assessment approach within the context of the Merdeka Curriculum, which is more autonomous and flexible. One major challenge is the difficulty in question creation, where teachers face challenges in formulating relevant questions capable of accurately measuring students' understanding. The shift in curriculum paradigms that emphasize conceptual understanding over rote memorization further complicates the process of creating practical questions, which is in line with the research findings of Hill, Ball, and Schilling (Hill et al., 2008).

Furthermore, teachers also encounter difficulties in designing assessment formats suitable for the characteristics of the Merdeka Curriculum. Selecting assessment instruments that can holistically and inclusively measure students' understanding becomes challenging. Analyzing assessment results requires high interpretative skills to make effective learning decisions. This challenge is reinforced by teachers' difficulties in formulating questions that encourage critical thinking and problem-solving, reflecting a lack of understanding of the principles of effective questioning (Stokhof et al., 2018).

Moreover, teachers' resistance to stepping out of their comfort zones and adopting more responsive and adaptive assessment practices is also a constraint. Teachers accustomed to conventional approaches may struggle to adapt to a curriculum that demands flexibility and creativity in assessment. Additionally, teacher creativity and innovation become key factors in overcoming the challenges of formative assessment implementation, especially in selecting creative assessment types that align with students' needs. Schildkamp et al. (2020) concluded that teachers need to understand the goals of formative assessment, possess skills in using various formative assessment strategies, and be able to analyze formative assessment data.

In the context of the Merdeka Curriculum, the difficulty of selecting creative assessments that align with the learning context is also a constraint. Teachers may struggle to align assessment types with a more autonomous curriculum so assessments can provide an accurate overview of student achievements. These challenges provide a deep understanding of the complexity of implementing formative assessment within the context of the Merdeka Curriculum. Holistic and sustainable solutions are needed to overcome these constraints, including developing teacher skills, increased creativity in assessment design, and practical support to facilitate a paradigm shift towards a more adaptive curriculum focused on conceptual understanding. With a comprehensive understanding of these challenges, educators and policymakers can develop more effective strategies and support to ensure the successful implementation of formative assessment in the context of a more Merdeka Curriculum.

Teacher Recommendations for Using Formative Assessment in the Merdeka Curriculum

Recommendations for using formative assessment within the context of the Merdeka Curriculum involve a series of strategic steps that teachers can adopt. Firstly, teachers are advised to implement formative assessment routinely as an integral part of daily learning activities. Consistency in using formative assessment can provide continuous insights into student progress and supply accurate data to support learning decision-making. This aligns with the views of Brookhart et al. (2010), emphasizing that formative assessment is a continuous process, focusing on student learning and actively involving students. Teachers can use Formative assessment strategies, including effective questioning, diagnostic tasks, brief end-of-lesson tasks, and regular checking of student assignments.

The second step emphasizes the importance of involving students in the assessment process. Teachers can encourage student participation in self-assessment, engage in reflection, and provide feedback on the assessment process. Meanwhile, the third step highlights the need to align assessments with predefined learning objectives. A deep understanding of the competencies to be achieved allows teachers to design more focused and relevant formative assessments.

The next step advocates using various assessment methods, such as formative tests, projects, or presentations, to provide a more comprehensive overview of student understanding. Furthermore, the fifth recommendation emphasizes the importance of providing constructive feedback to students. Informative and guiding feedback can help students understand their strengths and weaknesses and provide directions for improvement. The sixth recommendation focuses on utilizing assessment data for learning improvement. Teachers must analyze formative assessment results to adjust teaching methods and respond to student needs. Subsequent steps include collaboration and sharing experiences with peers to enhance formative assessment practices and continuous improvement of professional competencies through training and self-development.

The eighth recommendation emphasizes responsiveness to student needs and flexibility in designing assessments that align with student characteristics. Lastly, involving parents in the assessment process is essential to provide a holistic understanding of student progress and encourage collaboration with parents. Following these recommendations, teachers are expected to optimize formative assessment to support a more adaptive and relevant Merdeka Curriculum. Hill & Tyson (2009) showed that parental involvement has the most substantial impact on academic achievement, while Loima (2019) and Wilder (2013) highlighted that parental involvement can have a significant positive impact on student academic achievement through various activities.

CONCLUSION

Based on the research findings and discussions outlined, several conclusions can be drawn that teachers demonstrate a strong understanding of the importance of formative assessment in the day-to-day learning process. Teachers widely integrate formative assessment and provide periodic formative feedback to students, reflecting a commitment to monitor student progress and provide ongoing support. Additionally, teachers involve students in the formative assessment process regarding themselves, enabling students to understand their progress and performance. This practice reflects the educators' importance in facilitating student participation in self-evaluation. Most teachers generally adopt data from formative assessment as a foundation for planning learning improvements. This reflects the recognition of teachers for the significant value of formative assessment data in identifying weaknesses and improvement opportunities in learning. Student involvement in planning corrective actions based on assessment data is also a positive action that activates students' roles in managing their development.

Recommendations based on research findings and discussions include teacher training in the use of formative assessment, promoting collaboration between teachers and students in improvement planning, enhancing the use of assessment data, building an inclusive classroom environment, continuous evaluation, and improvement of formative assessment practices, as well as further research to measure its impact on student achievement and teaching practices.

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