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IMPLEMENTATION OF DIAGNOSTIC ASSESSMENT IN LEARNING IN MADRASAH IBTIDAIYAH

Slamet Riyadi
STIT Multazam
e-mail: selametriadi4455@gmail.com

ABSTRACT

Diagnostic assessment is an important component of student-centered learning, particularly in the context of implementing differentiated learning in Islamic elementary schools. This study aims to describe the implementation of diagnostic assessment, the utilization of its results in learning, and the supporting and inhibiting factors. The study used a qualitative approach with a case study design. The research subjects included classroom teachers and madrasah principals, while data collection techniques were conducted through observation, interviews, and documentation. Data analysis was carried out through the stages of data reduction, data presentation, and conclusion drawing and verification, with data validity tested using source and technique triangulation. The results of the study indicate that diagnostic assessment has been used to map students' initial abilities, adjust learning methods and strategies, and support the implementation of differentiated learning. However, its implementation still faces several obstacles, including limited technical understanding of teachers, limited learning time, administrative burden, and high variation in student abilities. Supporting factors for the implementation of diagnostic assessment include teacher competence and commitment, support from madrasah principals, and the availability of learning tools and guides. This study concludes that the successful implementation of diagnostic assessment requires strengthening teacher capacity, ongoing institutional support, and simplification of the administrative system so that the assessment can be optimally utilized in improving the quality of learning in Madrasah Ibtidaiyah.

Keywords : Diagnostic Assessment, Differentiated Learning, Elementary Madrasah, Teacher Competence, Learning Evaluation.

A. INTRODUCTION

The change in learning paradigm from a teacher-centered approach to student-centered learning requires a deep understanding of students' characteristics, readiness, and learning needs.

In this paradigm, students are viewed as active subjects with varying abilities, interests, and learning styles. Therefore, the learning process needs to be designed based on students' initial conditions to be more meaningful and effective (Azis & Lubis, 2023). Therefore, teachers no longer act merely as transmitters of material but also as facilitators capable of designing learning based on authentic information about students. This makes assessment an

integral part of the learning process, not merely a tool for evaluating learning outcomes but also a means of obtaining baseline data that can be used in planning and continuously improving learning.

One form of assessment that plays a strategic role in the early stages of learning is diagnostic assessment. This assessment aims to map students' initial abilities, both cognitive and non-cognitive, so that teachers can obtain an overview of students' learning readiness before the lesson begins (Khulaifi, 2025). The information obtained through diagnostic assessment serves as an important basis for determining learning approaches, methods, and strategies that are appropriate to the students' actual conditions.

In the context of Islamic elementary schools, the implementation of diagnostic assessments is increasingly important given the heterogeneous characteristics of students, both in terms of social background and culture, academic ability, and psychological development. This diversity demands a learning approach that is adaptive, contextual, and responsive to student needs (Ulfha et al., 2025).

Implementing diagnostic assessments allows teachers to identify differences in students' abilities, learning styles, and specific needs from the beginning of the lesson. These assessment results can be used to adjust learning methods, media, and activities, making the learning process more meaningful and tailored to student characteristics (Khatimah et al., 2025).

In the context of the Independent Curriculum, diagnostic assessments play a strategic role because they serve as the basis for implementing differentiated learning, namely learning that adapts the learning process, content, and products to the readiness and profile of students. Furthermore, diagnostic assessments also play a role in supporting inclusive learning by helping teachers early detect students experiencing learning difficulties or requiring special support so that appropriate interventions can be implemented promptly.

However, various studies have shown that teachers' understanding of the concept and practice of diagnostic assessment remains limited. Some teachers do not fully understand the purpose, procedures, and use of diagnostic assessment results in lesson planning, resulting in its implementation often being administrative and not optimally utilized as a basis for instructional decision-making (Laelatul et al., 2025).

Furthermore, teachers face various obstacles such as time constraints, high administrative burdens, and minimal ongoing training related to the development and analysis of diagnostic assessment instruments. These conditions have prevented the implementation of diagnostic assessments in elementary madrasas (Madrasah Ibtidaiyah) from being carried out systematically and optimally.

Based on this description, a study on the implementation of diagnostic assessment in learning at Islamic Elementary Schools (Madrasah Ibtidaiyah) is crucial. This research aims to understand teachers' understanding of diagnostic assessment, how it is implemented in the learning process, how the results are utilized to support differentiated learning, and the factors that support and hinder its implementation. The results of this study are expected to provide theoretical contributions to the development of learning assessment studies in elementary education and provide practical benefits for teachers, madrasah principals, and policymakers

in improving the quality of student-centered learning and aligning it with the demands of the Independent Curriculum (Azis & Lubis, 2023).

B. RESEARCH METHODS

This research was designed using a descriptive qualitative approach with a case study design, because this methodology allows researchers to understand the phenomenon of diagnostic assessment in depth in the natural context of the incident (e.g., a particular madrasah) and describe in detail the experiences of participants without manipulation of quantitative variables. Descriptive qualitative research is naturalistic and aims to explore the meaning, social interaction processes, and learning practices that occur in the field (Rusandi & Muhammad Rusli, 2021). The case study approach helps focus on a specific unit of analysis, in this case, the Madrasah Ibtidaiyah as the research location, so that the details of the diagnostic assessment practices carried out by teachers, madrasah principals, and students can be fully understood.

In this study, the research subjects consisted of class teachers, madrasah principals, and several students as key informants who were purposively selected because they had direct experience in implementing diagnostic assessments (Albi, 2018 in the Journal of Educational Research & Development). Data collection techniques used included direct observation of the implementation of diagnostic assessments in the classroom, semi-structured interviews with teachers and madrasah principals to explore their perceptions and practices, and documentation of learning tools and assessment instruments used as empirical evidence (Albi, 2018). For data analysis techniques, researchers performed data reduction (simplifying and selecting important data), data presentation (composing narratives and patterns of findings), and drawing conclusions/verification based on the relationships between data categories that emerged from interviews, observations, and documents. In order for the research results to be accountable, data validity tests were carried out through source triangulation (combining various data sources) and technical triangulation (combining observation, interviews, and documentation), as well as re-checking by participants (member check) to ensure that the researcher's interpretation is in accordance with their experience (triangulation enhances credibility).

C. RESULTS AND DISCUSSION

1. Key Findings

The research results show that Madrasah Ibtidaiyah teachers generally have a basic understanding of diagnostic assessment as an effort to determine students' initial readiness before learning is implemented. This understanding was obtained through the socialization of the Independent Curriculum, training activities, and discussions in the Teacher Working Group forum. Teachers understand that diagnostic assessment is not intended to provide a final assessment, but rather to map students' initial abilities from both cognitive and non-cognitive aspects so that learning can be adapted to the students' actual conditions (Azis & Lubis, 2023). However, this understanding is still conceptual and has not been fully followed by technical mastery in developing instruments and processing assessment results systematically, as also found in the study by Laelatul et al. (2025), which stated that teacher readiness in implementing diagnostic assessment still needs to be strengthened through ongoing mentoring.

In practice, diagnostic assessments in elementary schools are generally implemented at the beginning of the semester or before learning begins, utilizing various simple instruments, such as short written tests, oral questionnaires, observation sheets, and non-cognitive questionnaires. These instruments are used to identify students' literacy, numeracy, and socio-emotional abilities. This finding aligns with research by Khulaifi (2025), which states that diagnostic assessments in elementary schools are generally implemented flexibly and adapted to classroom conditions. However, their implementation is not yet fully structured, as some teachers have not systematically developed indicators, rubrics, or analyzed assessment results. Therefore, their use is limited to a general overview of student abilities.

The research results also show that diagnostic assessments have been used as a basis for adjusting learning strategies. Teachers tend to group students based on their initial ability levels and provide differentiated learning treatments according to their needs. This practice reflects efforts to implement differentiated learning, although it has not yet been fully formally planned. This finding aligns with Khatimah et al. (2025) who stated that diagnostic assessments play a crucial role in determining variations in methods, media, and the complexity of learning tasks. Furthermore, diagnostic assessments are also used to identify students who require special assistance so that teachers can provide more intensive attention and guidance throughout the learning process.

This study also identified supporting and inhibiting factors in the implementation of diagnostic assessments. Supporting factors include support from the madrasah principal, teacher involvement in training activities or KKG (Community Working Group), and teacher awareness of the importance of diagnostic assessments as part of the Independent Curriculum. This institutional support plays a role in building a reflective and collaborative culture within the madrasah environment, as emphasized by Ulfha et al. (2025) who stated that the success of diagnostic assessments is strongly influenced by leadership support and a culture of collective work. Conversely, inhibiting factors found include time constraints due to teachers' administrative burdens, minimal technical training related to the development of assessment instruments, and a relatively large number of students, which makes in-depth analysis of assessment results difficult. These obstacles align with the findings of Laelatul et al. (2025) who stated that limited technical competence and teacher workload are the main obstacles in the implementation of diagnostic assessments.

Overall, the findings of this study indicate that diagnostic assessment has significant potential to support meaningful, inclusive, and differentiated learning in Islamic elementary schools (Madrasah Ibtidaiyah) if implemented systematically and sustainably. Diagnostic assessment serves not only as an initial mapping tool but also as a basis for making more appropriate learning decisions that are responsive to student needs. Therefore, strengthening teacher capacity through ongoing training, simplifying assessment tools, and supporting madrasah policies is necessary to ensure optimal implementation of diagnostic assessment and align with the objectives of the Independent Curriculum (Azis & Lubis, 2023; Ulfha et al., 2025).

2. Discussion

a. Teachers' Understanding of Diagnostic Assessment

Teachers' understanding of diagnostic assessment is a key foundation for implementing student-centered learning. Research shows that most elementary school teachers are familiar with the term diagnostic assessment, especially since the implementation of the Independent Curriculum. Teachers interpret diagnostic assessment as an initial activity to determine students' initial abilities, learning readiness, and condition before the lesson begins. This understanding aligns with the view that diagnostic assessment serves as an initial mapping tool that helps teachers design learning tailored to students' needs (Kemendikbudristek, 2022).

Conceptually, teachers understand that diagnostic assessment differs from formative and summative assessments. Diagnostic assessments are conducted prior to the learning process to identify competency gaps and student learning characteristics. This finding aligns with research by Suryani and Setiawan (2023), which states that diagnostic assessments play a crucial role in uncovering students' initial conditions, both cognitive and non-cognitive, so teachers can design targeted learning strategies. This understanding demonstrates a paradigm shift in teachers' understanding from outcome-based assessment to assessment as a learning process.

However, teachers' understanding is still dominated by conceptual aspects and has not yet been fully articulated with technical mastery. Some teachers still interpret diagnostic assessments as merely pretests or initial tests, without in-depth analysis of the results. This aligns with the findings of Fauziah et al. (2022), who stated that many teachers are unable to link diagnostic assessment results to differentiated learning plans. As a result, the information obtained from assessments is not optimally utilized to improve the teaching and learning process.

In the context of Islamic elementary schools, teachers' understanding of diagnostic assessment is also influenced by the heterogeneous characteristics of students, including academic ability, family background, and literacy and numeracy skills. Teachers recognize that this situation requires initial mapping for effective learning. This aligns with the opinion of Widodo and Nisa (2023), who assert that diagnostic assessment helps teachers understand student diversity, thereby avoiding a uniform learning approach.

Furthermore, research results indicate that teachers are beginning to understand the importance of non-cognitive diagnostic assessments, such as aspects of student learning motivation, self-confidence, and emotional well-being. This understanding emerges in line with the Independent Curriculum's emphasis on strengthening the Pancasila student profile. Research by Rahmawati and Hidayat (2024) states that non-cognitive diagnostic assessments play a crucial role in creating a safe learning climate and supporting student character development, particularly at the elementary level.

However, teachers' understanding is not yet fully unequal. Teachers who have participated in training or are active in professional forums demonstrate a better understanding than those who have not received mentoring. This suggests that understanding of diagnostic assessment does not develop automatically but requires a continuous professional learning process. This finding supports the research of Lestari et al. (2023), which concluded that

improving teachers' assessment literacy is significantly influenced by access to training and learning communities.

Overall, teachers' understanding of diagnostic assessment is in the developing category, meaning they understand its basic objectives and functions, but still need reinforcement in technical aspects and the utilization of results. A comprehensive understanding will be a crucial prerequisite for the successful implementation of differentiated learning in Islamic elementary schools. Therefore, continued strengthening of conceptual and practical understanding is necessary so that diagnostic assessment truly serves as a basis for making meaningful learning decisions (Kemendikbudristek, 2022; Suryani & Setiawan, 2023).

Teachers' conceptual understanding of diagnostic assessments varied significantly. Some teachers understood the basic concept of diagnostic assessment as a tool for identifying students' initial abilities and learning needs before the start of instruction. This understanding encompasses its purpose, implementation time, and differences from formative and summative assessments. This finding aligns with Yusuf and Wulandari's (2022) assertion that conceptual understanding is the primary foundation for teachers' effective assessment implementation.

In practice, teachers with a strong conceptual understanding are able to explain that diagnostic assessments are not used to determine grades, but rather as a basis for learning planning. They understand that assessment results are used to determine learning strategies, methods, and differentiation. Research by Pratiwi et al. (2023) shows that teachers with a strong conceptual understanding tend to be more reflective in developing learning materials and more adaptive to student needs.

However, some teachers still demonstrate a partial understanding. They associate diagnostic assessment solely with the initial written test without understanding the non-cognitive dimensions, which are also crucial. This aligns with the findings of Nugroho and Laila (2022), who stated that teachers' conceptual understanding of assessment is often limited to the cognitive aspect and does not address students' social-emotional aspects.

The level of conceptual understanding is also influenced by a teacher's educational background and teaching experience. Teachers with longer teaching experience tend to have empirical experience in mapping student abilities, but they don't always understand the terminology and conceptual framework of formal diagnostic assessment. Conversely, younger teachers generally understand the concepts theoretically but are not yet fully skilled in their implementation. This finding aligns with research by Mulyani and Anwar (2023), which emphasized the gap between theoretical understanding and assessment practice in elementary schools.

Furthermore, teachers' conceptual understanding is also influenced by the intensity of education policy socialization. The Independent Curriculum places a strong emphasis on diagnostic assessment as part of differentiated learning. Teachers who actively participate in socialization and technical guidance demonstrate a more comprehensive understanding than those who only acquire information independently. This is reinforced by research by Sari and Kurniawan (2024), which states that education policies require mentoring to ensure teachers' conceptual understanding.

A sound conceptual understanding impacts how teachers interpret the function of assessment in learning. Teachers no longer view assessment as an administrative activity, but

rather as a reflective process to improve the quality of learning. With this understanding, teachers begin to recognize the importance of analyzing assessment results and using them as a basis for pedagogical decision-making. This aligns with the view of Black and Wiliam (2021), who assert that a conceptually understood assessment will foster more effective learning practices.

Overall, teachers' conceptual understanding of diagnostic assessment is moderate and developing. Strengthening through ongoing training, reflective discussions, and hands-on practice is needed to ensure this understanding is not merely theoretical but also consistently implemented. Thus, diagnostic assessment can truly become a strategic instrument in supporting student-centered learning in elementary schools.

The primary source of teachers' understanding of diagnostic assessment comes from formal training provided by the government and educational institutions. Independent Curriculum training, both online and offline, serves as a primary means for teachers to understand the concepts, objectives, and examples of diagnostic assessment applications. Research by Hidayah et al. (2023) shows that training has a significant impact on improving teachers' understanding of assessment, particularly when accompanied by hands-on practice and case studies.

In addition to formal training, Teacher Working Groups (KKG) play a crucial role as collective learning spaces to deepen understanding of diagnostic assessment. Through the KKG forum, teachers can discuss, share experiences, and exchange examples of assessment instruments used in the classroom. This finding aligns with research by Rahman and Sulastri (2022), which found that professional learning communities contribute significantly to improving the pedagogical competence of elementary school teachers.

The Teacher Working Group (KKG) also serves as a forum for collective reflection on the challenges of implementing diagnostic assessments. Teachers can discuss difficulties in developing instruments, analyzing results, and implementing differentiated learning. These collective discussions help teachers develop a more contextual and applicable understanding. This is reinforced by Putri et al.'s (2024) finding that collaborative learning among teachers improves both conceptual understanding and practical skills in assessment.

Curriculum policies are also an important resource in shaping teachers' understanding. Official documents such as Learning Outcomes and the Independent Curriculum assessment guide provide conceptual direction regarding the function of diagnostic assessments. Teachers who actively read and understand policy documents demonstrate a more systematic understanding than those who rely solely on unofficial information. This aligns with research by Sulasmi and Hartono (2023), which states that policy literacy influences the quality of learning implementation.

Furthermore, teachers can gain insights through digital learning platforms, such as online modules, webinars, and virtual learning communities. Access to digital resources allows teachers to update their knowledge independently. Research by Kurniawati et al. (2024) shows that utilizing digital learning platforms positively contributes to improving teachers' understanding of assessment innovations.

However, not all teachers have equal access to these resources. Limited time, facilities, and institutional support are limiting factors. This creates gaps in understanding among

teachers within the same educational unit. This finding aligns with research by Yuliana and Prasetyo (2023), which found that disparities in access to training impact the quality of education policy implementation.

Thus, teachers' understanding of diagnostic assessment comes from training, KKG (Work Group), curriculum policies, and independent learning through digital media. Optimizing all these sources in an integrated manner is essential to ensure teachers' understanding is more comprehensive and applicable. Strengthening the teacher learning ecosystem is key to ensuring the consistent implementation of diagnostic assessment and a tangible impact on the quality of learning in elementary Islamic schools.

b. Implementation of Diagnostic Assessment in Elementary Madrasah

Research results indicate that diagnostic assessments are generally implemented in elementary Islamic schools (Madrasah Ibtidaiyah) at the beginning of the semester and/or at the beginning of the lesson before any material is taught. This timing is considered strategic because it allows teachers to obtain an initial overview of students' learning readiness, basic abilities, and condition before the learning process begins. This practice aligns with the Independent Curriculum guidelines, which emphasize that diagnostic assessments are conducted before learning to map students' initial conditions so that learning can be designed appropriately and meaningfully (Kemendikbudristek, 2022). Implementation at the beginning of the lesson also strengthens the assessment's function as a basis for pedagogical decision-making, rather than simply an administrative activity.

In addition to being conducted at the beginning of the semester, some teachers also implement diagnostic assessments at the beginning of each new topic or topic. This is done to determine students' mastery of learning prerequisites. This practice demonstrates that teachers are beginning to understand diagnostic assessment as a flexible and ongoing process. Consistent with Black and Wiliam's (2021) perspective, initial assessments conducted before learning allow teachers to adjust strategies, methods, and the difficulty level of the material to suit students' readiness. Thus, diagnostic assessments serve as the foundation for effective, student-centered learning.

The research results also show that diagnostic assessments in Islamic elementary schools are conducted using various instruments. The most frequently used instruments are simple written tests, such as multiple-choice questions, short answer questions, or short essays, to measure students' initial literacy and numeracy abilities. The use of written tests aligns with the findings of Pratiwi et al. (2023), who stated that written instruments remain the primary choice for teachers because they are easy to develop and practical for mapping students' initial abilities. Through these instruments, teachers can obtain an initial picture of students' level of material mastery and potential learning difficulties.

In addition to written tests, teachers also utilize oral questions as part of diagnostic assessments, especially in lower grades. Questions are asked directly to determine students' prior understanding, learning experiences, and ability to express opinions. This form of assessment is considered more communicative and flexible. Suryani and Setiawan (2023) stated that oral assessments are effective for exploring initial conceptual understanding while fostering positive interactions between teachers and students. Through simple dialogue,

teachers can obtain initial information about students' learning readiness without causing psychological stress.

In addition to cognitive aspects, diagnostic assessments also cover non-cognitive aspects through observations and simple questionnaires. Teachers observe students' attitudes, learning motivation, activeness, discipline, and social interactions during the initial learning process. Observation instruments and questionnaires are used to understand students' emotional and social conditions that influence learning success. These findings align with Rahmawati and Hidayat (2024), who emphasized that non-cognitive diagnostic assessments play a crucial role in creating safe, inclusive, and responsive learning environments.

In addition, teachers also utilize supporting documents such as previous grades, portfolios, and student assignments as part of the diagnostic assessment. These documents are used to observe trends in student learning development over time. The use of multiple data sources demonstrates that diagnostic assessments do not rely on a single instrument but rather combine various forms of learning evidence. This approach aligns with Black and Wiliam's (2021) perspective, which emphasizes the importance of using multiple sources of evidence to obtain a comprehensive picture of learning.

In practice, the diagnostic assessment procedure begins with planning, which includes determining the assessment objectives, selecting instruments, and scheduling the implementation. The teacher then conducts the assessment by explaining the objectives of the activity so that students understand that the assessment is not intended to provide grades, but rather to facilitate the learning process. Afterward, the teacher collects and analyzes the assessment results by grouping students based on their level of mastery and learning needs. This analysis process serves as the basis for determining follow-up actions in the form of differentiated learning, enrichment, or remedial instruction, as emphasized by Widodo and Nisa (2023).

The final stage of the diagnostic assessment procedure is documenting the results and reflection on learning. Teachers record the assessment results and follow-up actions taken to serve as material for evaluation and planning for future learning. This documentation serves as an archive of student learning progress and evidence of assessment implementation. Lestari et al. (2023) emphasized that good documentation supports the sustainability of diagnostic assessment implementation and improves the quality of learning decision-making. Overall, the research findings indicate that the implementation of diagnostic assessment in Madrasah Ibtidaiyah (Islamic elementary schools) has been successful, utilizing the initial learning time, various instruments, and relatively systematic procedures. Although it still requires strengthening teacher competencies for more optimal and consistent implementation

c. Utilization of Diagnostic Assessment Results in Learning

The research findings indicate that the use of diagnostic assessment results in learning at Islamic Elementary Schools (Madrasah Ibtidaiyah) plays a crucial role in comprehensively mapping students' initial abilities. Teachers use assessment results to determine their level of mastery of basic competencies, both in cognitive aspects such as literacy and numeracy, and non-cognitive aspects such as motivation, self-confidence, and learning readiness. This mapping is carried out by grouping assessment results so that teachers can recognize variations in student abilities and identify learning difficulties experienced early on. This finding aligns

with the views of Black and Wiliam (2021), who assert that diagnostic assessments serve as a basis for pedagogical decision-making so that learning can be designed more appropriately and effectively. Through this mapping, teachers gain a comprehensive picture of students' initial conditions, so that learning is not carried out uniformly but rather takes into account the diversity of student characteristics.

The use of diagnostic assessment results is also evident in teachers' efforts to develop student learning profiles. These profiles contain information about students' strengths, weaknesses, and learning needs, derived from test results, observations, and other supporting data. With these profiles, teachers can reflect on classroom conditions and design more targeted learning. This practice aligns with the findings of Pratiwi et al. (2023), who stated that mapping assessment results serves as an important basis for developing learning interventions tailored to student needs. Furthermore, mapping results are also utilized in professional forums such as Teacher Working Groups (KKG) to discuss relevant, data-driven learning strategies, as emphasized by Rahman and Sulastri (2022).

The research also shows that mapping students' initial abilities is used to adjust learning methods, media, and strategies. Teachers choose learning methods that are appropriate to student characteristics, such as group discussions, hands-on learning, or project-based learning. These adjustments are made to help students more easily understand the material according to their level of readiness. Black and Wiliam (2021) stated that adjusting methods based on assessment results can increase student engagement and understanding. In practice, teachers also adjust learning media, for example by using visual, audio, or digital media for students who need additional support, and providing more complex challenges for students with high abilities.

In addition to methods and media, diagnostic assessment results are used to determine appropriate learning strategies. Teachers implement strategies for grouping students, either homogeneously or heterogeneously, according to learning objectives. This strategy helps create more effective learning interactions and allows students to learn from each other. Widodo and Nisa (2023) explain that learning strategies tailored to student characteristics can increase learning effectiveness and encourage active student engagement. Strategy adjustments also include providing reinforcement, remedial, and enrichment based on assessment results so that each student receives learning services tailored to their needs.

The use of diagnostic assessment results is also evident in the implementation of differentiated learning. Teachers differentiate learning content, processes, and products according to students' readiness levels, interests, and learning profiles. Content differentiation is achieved by providing materials with varying levels of difficulty, while process differentiation is achieved through a variety of learning activities. Product differentiation is realized through various forms of assignments, such as written reports, presentations, or creative projects. This approach aligns with Tomlinson's (2020) view, which emphasizes that differentiation is an important strategy for accommodating the diversity of learners within a class.

Furthermore, the implementation of differentiated learning based on diagnostic assessment results positively impacts student motivation and engagement. Students feel more valued because learning is tailored to their abilities and interests, thus encouraging active

participation in the learning process. This finding aligns with Rahmawati and Hidayat (2024), who stated that non-cognitive diagnostic assessment plays a role in creating safe, inclusive learning environments that support students' emotional development. Thus, assessment serves not only as an academic measurement tool but also as a foundation for building a positive learning climate.

However, this study also found that the utilization of diagnostic assessment results is not yet fully optimal due to obstacles such as time constraints, teachers' data analysis skills, and readiness to design differentiated learning. Some teachers still focus on final scores without thoroughly processing the assessment data. This finding aligns with Lestari et al. (2023), who stated that teacher assessment literacy is a key factor in the successful utilization of diagnostic assessments. Therefore, strengthening teacher competencies through ongoing training and professional mentoring is necessary to maximize the use of assessment results.

Overall, the research results indicate that the use of diagnostic assessment results plays a strategic role in mapping students' initial abilities, adapting learning methods and media, and implementing differentiated learning in Islamic elementary schools. These three aspects are interrelated and form a unified learning process oriented to student needs. With the appropriate use of diagnostic assessments, learning becomes more adaptive, meaningful, and equitable, thus supporting the continuous improvement of learning quality.

d. **Supporting Factors for the Implementation of Diagnostic Assessment**

The results of the study show that one of the main factors supporting the implementation of diagnostic assessment in Madrasah Ibtidaiyah isteacher competence and commitmentTeachers with strong pedagogical and assessment competencies are able to design, implement, and utilize assessment data effectively in learning. These competencies include the ability to understand assessment objectives, develop valid diagnostic instruments, and analyze assessment results appropriately (Black & Wiliam, 2021). Teachers with these competencies are more confident in using assessment results to adjust learning strategies.

Teacher commitment is an equally important supporting factor. Teachers who demonstrate high commitment tend to use diagnostic assessments not merely as an administrative obligation, but as a strategic tool to improve the quality of learning. This commitment is reflected in teachers' willingness to dedicate extra time to developing instruments, analyzing results, and conducting follow-up instruction for students who need it (Suryani & Setiawan, 2023). Committed teachers are better able to make diagnostic assessments an integral part of the learning process.

In this study, teacher competence and commitment were also strengthened by their understanding of the Independent Curriculum, which requires diagnostic assessment at the beginning of learning. Teachers who understand the curriculum's philosophy tend to view diagnostic assessment as a professional necessity, not merely an administrative burden. This aligns with the findings of Pratiwi, Hasanah, and Fadillah (2023) that understanding curriculum policies is positively correlated with effective assessment practices.

Apart from teacher competence and commitment,support from the head of the madrasahLeadership also emerged as a key factor in strengthening the implementation of diagnostic assessments. Madrasah principals who proactively support assessment implementation will create a school climate that supports learning innovation. This support

includes providing training time, encouraging teacher team coordination, and recognizing good assessment practices. This kind of leadership support motivates teachers to continuously improve diagnostic assessment practices in the classroom (Rahman & Sulastri, 2022).

Madrasah principals play a role in fostering a collaborative culture among teachers through forums such as the Teacher Working Group (KKG) or Subject Teacher Conference (MGMP), which collectively discuss diagnostic assessment strategies. This finding aligns with research by Lestari, Wahyuni, and Arifin (2023), which states that effective instructional leadership must foster professional dialogue based on assessment data to improve instructional practices. Such forums provide a platform for reflection and the exchange of best practices.

The principal's support also comes in the form of administrative and facility support. For example, dedicated time is allocated for instrument design, assessment reference materials are provided, and time is allotted for analysis of assessment results. This administrative support makes it easier for teachers to utilize assessment results optimally without being burdened by other routine tasks (Kurniawati, Lestari, & Maulana, 2024). Without this kind of support, teachers often experience time pressures that hinder the implementation of meaningful assessments.

Furthermore, the principal also acts as a training facilitator and mentors teachers in understanding the technical aspects of diagnostic assessments. Principals who encourage collaboration with assessment instructors and academics will help teachers overcome technical obstacles in developing diagnostic instruments. This type of support has been shown to improve the quality of assessment implementation, as demonstrated by Fauziah, Sari, and Hakim (2022) who found that ongoing training correlates with improved teacher assessment competency.

The third factor found to support the implementation of diagnostic assessment isavailability of devices and learning guidesappropriate to the needs of the madrasah. Tools such as diagnostic assessment instruments, assessment rubrics, implementation guidelines, and learning follow-up guides greatly assist teachers in systematically designing and implementing assessments. The availability of these tools reduces the burden on teachers in developing instruments from scratch and provides standards to adhere to (Black & Wiliam, 2021).

Clear learning guides, whether in the form of curriculum documents, assessment manuals, or training modules, also help teachers understand the technical steps for implementing diagnostic assessments. According to Suryani and Setiawan (2023), practical guides enable teachers to implement diagnostic assessments consistently and timely, and support accurate interpretation of assessment results. Such guides are crucial for bridging the gap between conceptual understanding and classroom practice.

The availability of digital assessment tools also supports more effective diagnostic assessment implementation. Integrated digital platforms and question banks allow teachers to take standardized instruments and modify them to suit learning needs. Kurniawati et al. (2024) demonstrated that the use of technology in assessment can improve the efficiency of implementation and analysis of assessment results. However, access to and training in using technology must also be ensured to ensure optimal use of digital tools.

The overall findings of this study indicate that teacher competence and commitment, support from the principal, and the availability of learning tools and guides are key supporting

factors in the successful implementation of diagnostic assessments in elementary Islamic schools. These three factors are interrelated and mutually reinforcing in creating an effective and sustainable assessment culture. Therefore, integrated support from individuals (teachers) to institutions (principals), as well as material support, is essential to maximize the function of diagnostic assessments in improving the quality of learning.

e. **Inhibiting Factors in the Implementation of Diagnostic Assessment**

The research results show that the implementation of diagnostic assessment in Islamic elementary schools still faces various interrelated inhibiting factors, including teacher competency, time constraints, administrative burdens, and variations in student abilities. One of the main obstacles is teachers' limited technical understanding of diagnostic assessment concepts and procedures. Some teachers still interpret assessment as merely an initial evaluation activity, not as a systematic process to map student readiness, characteristics, and learning needs. This condition aligns with the findings of Fauziah et al. (2022) who stated that teachers' understanding of diagnostic assessment is still partial and not fully integrated into learning practices.

This limited understanding impacts teachers' ability to develop assessment instruments that meet diagnostic objectives. Many teachers are unable to clearly differentiate between diagnostic, formative, and summative assessments, resulting in instruments that do not fully reflect students' initial conditions. This is reinforced by the findings of Lestari and Wahyuni (2023), who stated that low assessment literacy leads teachers to use practical instruments without considering their validity and pedagogical function. As a result, assessment data is not optimally utilized as a basis for lesson planning.

Furthermore, teachers' limited technical understanding is also influenced by the lack of practical training. The training provided generally emphasizes conceptual and policy aspects, without direct guidance in developing instruments or analyzing assessment results. This situation makes it difficult for teachers to implement diagnostic assessments in real-life classroom situations. Rahman and Sulastri (2022) emphasized that training without ongoing practice and guidance tends to be less effective in improving teachers' pedagogical competence.

Another prominent inhibiting factor is limited learning time. Teachers are faced with the demands of completing material according to the academic calendar, limiting the time available for in-depth diagnostic assessments. In practice, diagnostic assessments are often perceived as reducing core learning time, resulting in suboptimal implementation. This finding aligns with research by Suryani and Setiawan (2023), which demonstrated that limited time allocation is a major obstacle to implementing meaningful assessment in elementary schools.

Time constraints also impact the analysis and follow-up of assessment results. Teachers need additional time to process data, interpret results, and design follow-up learning strategies, but busy teaching hours often hinder this process. As a result, diagnostic assessment results are not optimally utilized as a basis for learning decisions. Black and Wiliam (2021) emphasize that assessments will only have a positive impact if teachers have the opportunity to systematically reflect on and follow up on their results.

Besides time constraints, administrative burdens are also a significant inhibiting factor. Teachers are required to complete various administrative obligations, such as preparing learning materials, preparing assessment reports, completing educational applications, and

other institutional documents. This high administrative burden reduces teachers' focus and energy on designing and implementing in-depth diagnostic assessments. Kurniawati et al. (2024) stated that administrative pressures often reduce the quality of lesson planning because teachers are more focused on document completeness than on pedagogical substance.

Excessive administrative burdens also lead to teachers' tendency to treat diagnostic assessments as mere formalities. Under these circumstances, assessments are conducted solely to satisfy administrative demands, rather than as a tool for reflection and learning improvement. Lestari et al. (2023) assert that administrative pressure can shift teachers' professional orientation from reflective practice to administrative compliance, thus subverting the primary function of assessment.

In addition to internal factors affecting teachers and the school system, the wide variation in student abilities also poses a challenge in implementing diagnostic assessments. Within a single class, teachers face vastly different academic abilities, social backgrounds, and learning readiness. This situation makes it difficult for teachers to develop assessment instruments that can accommodate all student characteristics fairly and proportionally. Tomlinson (2020) emphasized that student heterogeneity demands a high level of skill in assessment-based learning differentiation.

The high variation in ability also makes it difficult for teachers to determine follow-up learning. Without adequate strategy and equipment support, teachers tend to provide uniform learning experiences, putting low-ability students at risk of falling behind and high-ability students under-challenged. This aligns with the findings of Pratiwi et al. (2023), who stated that the diversity of student abilities is a major obstacle to the implementation of diagnostic assessment and differentiated learning.

Overall, the results of this study indicate that the barriers to the implementation of diagnostic assessments in Islamic elementary schools are multidimensional and interrelated. Limited teacher technical understanding, limited learning time, administrative burdens, and high student ability variations form a series of inhibiting factors that affect the effectiveness of diagnostic assessment implementation. Therefore, integrated efforts are needed to improve teacher assessment literacy, simplify administrative burdens, strengthen institutional support, and provide practical guidance so that diagnostic assessments can be implemented optimally and sustainably to improve the quality of learning in Islamic elementary schools.

D. CONCLUSION

Based on the research results and discussion, it can be concluded that the implementation of diagnostic assessments in Islamic elementary schools plays a strategic role in supporting student-centered learning. Diagnostic assessments are used to map students' initial abilities, characteristics, and learning needs, enabling teachers to design more appropriate, adaptive, and meaningful learning. The results of these assessments serve as the basis for adjusting learning methods, media, and strategies, including the implementation of differentiated learning.

The research also shows that the successful implementation of diagnostic assessments is heavily influenced by teacher competence and commitment, support from the principal, and the availability of learning tools and guides. Teachers with a good understanding of assessment

and supported by responsive madrasah leadership tend to be able to integrate diagnostic assessments more effectively into the learning process. Conversely, limited technical understanding, time constraints, high administrative burdens, and the wide variation in student abilities are key obstacles to implementation.

Thus, ongoing efforts are needed to improve teacher assessment literacy through application training, professional mentoring, and strengthening teacher learning communities. Furthermore, simplifying administration and providing practical guidance for diagnostic assessments are crucial steps to ensure teachers have the space and time to optimally utilize assessment results. Through the support of an integrated system, diagnostic assessments are expected to function as a strategic instrument in improving the quality of learning and education in Islamic elementary schools.

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