

Original Research Article

Exploring Formative Assessment Strategies for Pupils with Learning Disabilities in Inclusive Schools in Temeke Municipality, Tanzania

ABSTRACT

Formative assessment is a key tool for monitoring the progress of pupils with disabilities in inclusive educational settings. This study investigates the strategies used for formative assessment of pupils with learning disabilities in inclusive schools, with a specific focus on teachers' perceptions in Temeke Municipality. The study is grounded in an interpretive paradigm and adopts a qualitative research methodology, using a multiple case study design. A purposive and snowball sample of 22 teachers was selected, with data collected through in-depth interviews and analyzed using content analysis facilitated by Atlas Ti software. Ethical considerations were adhered to by obtaining approval from the Directorate of Research, Publications, and Innovation at the Open University of Tanzania, and ensuring participant confidentiality and anonymity throughout the research process. The findings indicate that teachers primarily use quizzes, tests, exams, and task-based performance as common formative assessment methods for pupils with learning disabilities. Such methods helped to assess the academic progress of pupils, including those with learning disabilities, by providing valuable insights into their understanding of the material. Teachers also noted the importance of ongoing feedback in supporting student progress. The study concludes that the use of a variety of assessment techniques is essential for improving the academic performance of pupils with learning disabilities in inclusive settings. Based on these findings, the study recommends that the government should implement regular professional development programs for teachers, focusing on enhancing their formative assessment skills in special needs. Such initiatives are expected to foster a more inclusive and effective learning environment for all pupils.

Keywords: Formative Assessment, Learning Disabilities, Inclusive Schools, Teachers' Perceptions, Special Needs Education.

1. INTRODUCTION

A comprehensive assessment system that integrates formative practices and interim assessments is crucial for making informed pedagogical decisions for pupils with disabilities, particularly those with significant cognitive challenges [1]. Formative practices refer to instructional strategies and activities that allow educators to collect real-time data on student learning during the learning process, thereby facilitating immediate adjustments in teaching (Mandinach & Gummer, 2021). In contrast, interim assessments are standardized assessments administered periodically throughout the academic year to track student progress toward meeting educational standards and benchmarks (Zapata-Rivera & Solano-Flores, 2023). However, teachers often encounter significant difficulties, particularly when assessing written tests and oral examinations for children with disabilities in inclusive settings (Pillai & Devamanokari, 2023).

Formative assessment is essential for establishing the educational progress and outcomes of pupils with learning disabilities, making it a critical focus in education worldwide (Douglas et al., 2016). These practices emphasize the use of feedback to guide pupils' development and adjust teaching methods to better address individual needs (Mandinach & Gummer, 2021). Effective feedback is central to formative assessment, as it supports pupils with learning disabilities in understanding their progress and areas for improvement (Andersson & Granberg, 2022). The primary goal is to enhance learning by providing ongoing, actionable insights into student progress (Mandinach & Gummer, 2021). For pupils to engage actively in their learning, they must comprehend their learning goals, strive toward them, and utilize assessment evidence to stay on track (Brookhart & Lazarus, 2017). A shared understanding of assessment's role should align with a vision of high-quality instruction and learning for all pupils (Lazarus et al., 2022). This alignment is reflected in learning objectives that define educational goals, instructional methods, and measures of success (Kulasegaram & Rangachari, 2018).

Formative practices include diverse methods such as quizzes, group activities, peer reviews, classroom observations, and digital learning tools (Mandinach & Gummer, 2021). The feedback from these practices helps pupils understand their strengths and areas for growth, facilitating a more personalized learning experience (Mandinach & Gummer, 2021). Such circumstances necessitate that teachers employ multiple pedagogical and assessment strategies for pupils with learning disabilities. Pre-assessment practices can guide instructional planning and enhance the learning experience for both pupils with disabilities and their peers (Lazarus et al., 2022). This includes accountability-driven testing (Douglas et al., 2016).

Presentations continue to be recognized as a valuable assessment tool in education, enabling pupils to showcase their learning through verbal expression and interactive activities like discussions and debates, which help assess both their cognitive understanding and communication skills (Baker & Chalmers, 2021). This approach is particularly effective in fostering critical thinking and engagement, making it a dynamic method for evaluating deeper learning (Donnelly & McNulty, 2022). However, assessing special educational needs can be challenging, often limited by available resources in schools (Isaksson et al., 2010). Neglecting these needs may result in failing to recognize and celebrate progress relevant to a diverse student body (Douglas et al., 2016). Educational objectives typically encompass knowledge, skills, or attitudes (Kulasegaram & Rangachari, 2018). Despite evidence supporting the effectiveness of formative assessment in classrooms and standardized testing, some educators have yet to embrace these practices (Box, Skoog, & Dabbs, 2015).

Formative assessment involves three key questions: Where is the learner now? Where is the learner going? What does the learner need to do next? (Brookhart & Lazarus, 2017). This approach enables teachers to monitor pupils' progress relative to learning outcomes. Formative assessment also serves critical functions, such as certifying pupils' achievements and holding educational institutions accountable (William, 2010). However, the assessment of pupils with learning disabilities faces various challenges globally. While traditional testing has long been a staple of educational assessment, focusing primarily on summative measures of student performance, it often overlooks the opportunities for ongoing, formative assessments that can adapt to student needs in real time (Guskey, 2020). In contrast, modern testing practices, such as adaptive testing and digital formative assessments, are designed to provide continuous feedback, allowing for more personalized and responsive instruction that better supports student growth and mastery (William, 2021; Shute & Kim, 2022). Recognizing that learning and assessment are inherently interconnected is essential, as effective educational practices are built upon clear objectives, robust delivery methods, and meaningful assessments, all of which shape the learning experience (Guskey, 2020).

Furthermore, the challenges associated with assessing pupils with learning disabilities can vary significantly based on the type of disability, with educators often facing fewer barriers when assessing pupils with physical or sensory impairments compared to those with specific language impairments, which require more nuanced and tailored assessment strategies (Sharma & Desai, 2022; Visscher-van Keulen et al., 2021). Fostering pupils' understanding of their learning goals and empowering them to set new targets is crucial for promoting self-regulated learning and academic growth (Hattie & Timperley, 2020). While both pupils and educators recognize that assessment plays a pivotal role in driving learning, the impact of assessment is largely shaped by the dynamic interactions between teachers and pupils, as well as the context in which the assessment occurs (Black & Wiliam, 2020). This highlights the importance of teachers continually enhancing their pedagogical skills, particularly when assessing pupils with special needs, to ensure that assessments are both inclusive and effective in supporting diverse learning requirements (Sharma & Desai, 2022).

In Tanzania, the adoption of formative assessment is particularly advantageous due to the need for more personalized and responsive teaching methods that address the diverse learning needs of pupils in resource-limited classrooms (Magong'ho, 2016). Research has shown that formative assessment helps teachers identify individual student strengths and weaknesses, enabling them to adjust their instruction in real-time, which is crucial in Tanzania, where educational disparities and large class sizes pose significant challenges to effective teaching and learning (Mkumbo & Kitta, 2021). Furthermore, formative assessments foster student engagement and autonomy, which is particularly important in Tanzanian schools where traditional, teacher-centered instruction has been the norm (Msuya & Alhassan, 2022). However, there is a risk of overlooking inclusive assessment frameworks, which ensure comprehensive curriculum evaluation (Douglas et al., 2016).

Factors such as overcrowded classrooms, heavy teaching loads, and a lack of clarity regarding formative assessment implementation contribute to its ineffectiveness (Kadau & Mallya, 2023). These challenges stem from cultural perceptions of learning and assessment, as well as the roles of teachers and pupils in the classroom (Magong'ho, 2016). Despite these challenges, developing 21st-century skills among pupils heavily relies on effective formative assessment practices employed by classroom teachers (Senjiro & Lupeja, 2023). Feedback that monitors and scaffolds student learning has been shown to facilitate educational progress (Kyaruzi et al., 2018). To gather valuable feedback, teachers must ask diverse questions and implement various class exercises (Schildkamp et al., 2020). Formative assessment continues to be a critical tool for identifying student challenges, offering teachers the necessary insights to tailor instruction to address specific learning gaps (Shute & Kim, 2022). By providing ongoing feedback, formative assessments allow educators to adapt their teaching strategies in real time, supporting personalized learning and improving student outcomes (Hattie & Timperley, 2020).

Although formative assessment is recognized as a critical tool for enhancing learning outcomes, particularly for pupils with disabilities, there is a noticeable gap in research on its effective implementation within Tanzanian inclusive classrooms. Despite the potential benefits of formative assessment in guiding instructional decisions and improving pupil progress (Magong'ho, 2016), barriers such as overcrowded classrooms, limited resources, and inadequate teacher training hinder its widespread application in Tanzania (Kadau & Mallya, 2023). These challenges are compounded by cultural perceptions of learning and assessment that may affect both teachers' and pupils' engagement with formative assessment practices (Magong'ho, 2016). Additionally, there is a lack of research on the specific pedagogical methods employed by teachers in Tanzanian inclusive classrooms when assessing pupils with learning

disabilities. Teachers' understanding of how to adapt their methods to meet the diverse needs of pupils, particularly those with significant cognitive challenges, remains underexplored. The difficulties faced by teachers in evaluating pupils with learning disabilities, such as assessing performance-based tasks and written tests, remain inadequately addressed in the Tanzanian context, where resources for such assessments are often limited.

Moreover, the role of feedback in formative assessment remains an under-researched area within Tanzanian education. While global studies underscore the importance of feedback in supporting student learning (Kyaruzi et al., 2018), there is limited understanding of the types of feedback practices that are most effective for pupils with learning disabilities in Tanzanian classrooms. Additionally, the absence of a comprehensive framework for inclusive assessment that integrates both pedagogical and formative strategies for pupils with disabilities creates a significant research gap. Addressing this gap is essential for developing context-specific strategies that can better support the learning needs of pupils with disabilities in Tanzania. In light of this gap, the study will be guided by two key research questions: (1) what are the common formative assessment methods used for pupils with learning disabilities in inclusive schools? (2) What challenges do teachers face in implementing assessment strategies for pupils with learning disabilities in inclusive classrooms?

2. LITERATURE REVIEW

This section provides an overview of the literature on formative assessment, specifically focusing on its application for pupils with learning disabilities. Formative assessment, which involves continuous evaluation of student progress, plays a crucial role in tailoring instructional strategies to meet individual needs. For pupils with learning disabilities, such assessments are particularly valuable in identifying strengths and areas for improvement, allowing for timely adjustments in teaching methods.

2.1 Formative Assessment.

Formative assessment is a diagnostic tool that provides continuous feedback to both teachers and pupils throughout the instructional process (Boston, 2002). It encompasses a wide range of methods that allow teachers to assess pupils' comprehension, learning needs, and academic progress during lessons, units, or courses (Glossary of Education Reform, 2023). This approach enables real-time evaluation of pupils' performance, which improves course content and delivery as learning progresses (Schildkamp et al., 2020). The fundamental goal of formative assessment is to monitor pupils' learning and provide ongoing feedback, which educators can use to enhance instruction and better support pupils, including those with disabilities (Eberly, 2023). Bloom's advocacy for integrating assessments within instruction emphasizes the importance of identifying individual learning difficulties early and tailoring remediation strategies accordingly (Trumbull & Lash, 2013). By focusing on the ongoing learning process, formative assessments help pupils identify their strengths and weaknesses, targeting areas that require improvement (Eberly, 2023). Furthermore, formative assessments play a critical role in helping teachers adjust lessons, instructional techniques, and academic support based on the feedback gathered (Box, Skoog, & Dabbs, 2015; Glossary of Education Reform, 2023). This iterative feedback loop ultimately supports the continuous refinement of teaching and learning (Tunstall & Gipps, 1996).

The role of feedback in formative assessment cannot be overstated. Research highlights that feedback—whether from in-class activities or assignments—empowers pupils to refine their understanding and skills, making it a pivotal element in the learning process (William, 2021). Unlike summative assessments, which evaluate final outcomes, formative assessments foster continuous learning by offering teachers insights into pupils' understanding and enabling real-

time instructional adjustments (Shute, 2020; Brusilovsky et al., 2021). This approach ensures that the teaching process remains flexible and responsive to the dynamic needs of pupils (William & Leahy, 2020). Teachers are thus better equipped to determine whether to re-explain concepts or proceed with new material, promoting a personalized learning environment that supports student progress (Shute, 2020). By integrating formative assessment practices, both teachers and pupils are engaged in a feedback loop that identifies learning gaps and informs subsequent instructional decisions, creating a more interactive and adaptive educational experience (Schildkamp et al., 2020).

Formative assessments are particularly effective when they involve personalized feedback strategies, which help pupils understand their strengths and areas for growth (Leahy & William, 2021). This approach not only improves pupils' academic performance but also enhances their motivation and engagement, as it encourages self-reflection and accountability (Boud & Dawson, 2022). Formative assessments allow for continuous monitoring of pupils' progress, which is particularly beneficial in complex learning environments where growth is incremental and mastery-based (Schildkamp et al., 2020). In line with Bloom's mastery learning framework, formative assessments focus on pupils' progress toward specific learning outcomes, ensuring mastery before moving on to more advanced topics (Brusilovsky et al., 2021). While the responsibility of providing feedback traditionally rests with the teacher, recent research emphasizes the value of involving pupils in the feedback process.

Peer assessments, self-assessment, and collaborative learning opportunities enable pupils to take ownership of their learning and develop metacognitive skills (Boud & Dawson, 2022). In particular, peer feedback encourages critical thinking and deeper understanding, as pupils are prompted to engage with one another's work and offer constructive criticism (Li & Li, 2023). Moreover, the integration of technology, such as learning analytics and digital feedback tools, enhances the responsiveness and timeliness of formative assessments, providing more tailored feedback to meet individual learning needs (William & Leahy, 2020). This collaborative feedback process fosters a continuous dialogue between teachers and pupils, promoting growth and supporting the development of self-regulated learners, which are essential skills for lifelong learning (Leahy & William, 2021; Boud & Dawson, 2022).

While much of the research on formative assessment focuses on its implementation in diverse educational contexts, there remains limited attention to how these practices are applied within sub-Saharan African countries, particularly Tanzania. In Tanzania, the adoption of formative assessment in classrooms faces several barriers, such as large class sizes, a lack of teacher training, and limited access to educational resources, which may hinder effective feedback and assessment practices (Grimes, 2014). Furthermore, while recent educational reforms have emphasized the importance of continuous assessment to improve student learning outcomes, studies on the practical application and impact of formative assessment in Tanzanian schools are scarce (Nketsia, 2024). This gap in the literature suggests a need for more empirical studies that explore how formative assessment is implemented in Tanzanian classrooms, the challenges teachers face, and the effectiveness of such practices in enhancing learning, particularly for pupils with diverse educational needs, including those with disabilities. Exploring these issues would provide valuable insights into how formative assessment can be tailored to fit the unique socio-cultural and educational context of Tanzania, ensuring that its potential is fully realized in improving educational outcomes.

3. METHODOLOGY

This section outlines the key aspects of the study, including the research design, population and sampling, data collection instruments, trustworthiness, treatment of data, and ethical considerations.

3.1 Research design

This study is grounded in an interpretive paradigm, utilizing a qualitative approach to explore the perceptions and experiences of teachers within inclusive education settings. The flexibility of this approach allows for adjustments in data collection methods, enabling the research process to adapt to the specific context. A multiple case study design was employed, which included 13 inclusive schools in Temeke, Dar es Salaam. This design allows for an in-depth examination of varied experiences across different schools, providing rich, comparative insights into the practices and challenges faced in inclusive education.

3.2 Population and Sampling

The study focused on classroom teachers from 13 inclusive schools in Temeke, Dar es Salaam. Purposive and snowball sampling strategy was used, targeting teachers with direct experience in inclusive education settings. This sample enabled the study to gather in-depth perspectives from those most familiar with the pedagogical methods and formative assessment techniques used for pupils with learning disabilities.

3.3 Instruments

Data collection in this study utilized three primary methods to gather comprehensive insights into inclusive education. First, semi-structured interviews **made by the author** were conducted with classroom teachers, allowing for an in-depth exploration of their experiences and perceptions regarding inclusive education. The semi-structured interviews offered flexibility while ensuring that key research questions were consistently addressed. Second, non-participant observation was employed, with the researcher observing classroom practices to gain firsthand insights into the pedagogical strategies and formative assessment methods used in inclusive settings. This observation helped contextualize the interview data and provided a richer understanding of teaching practices in action. Finally, a documentary review was carried out, examining relevant documents such as policy guidelines, school registers, ledgers, and meeting minutes. This approach of data triangulation helped to broaden the study's context and provided additional evidence to support the findings from both interviews and observations.

3.4 Trustworthiness

To ensure the trustworthiness of the study, the researcher employed data triangulation, utilizing three distinct methods of data collection: semi-structured interviews, non-participants observations, and documentary review. Triangulation helped to verify the consistency of the data and strengthen the trustworthiness of the findings by comparing information gathered from different sources. By combining these methods, the study was able to build a more comprehensive and credible understanding of the experiences and challenges faced by educators in inclusive education settings.

3.5 Treatment of the Data

Data were analyzed using thematic analysis. The findings were summarized in a table using percentages. The process of analysis involved several key steps. First transcription-all interviews were transcribed verbatim to capture the exact responses of participants. Second coding-the transcribed data were coded into themes to identify recurring patterns and significant findings. Finally, interpretation whereby direct quotations from participants were used to illustrate key themes and the findings were presented in a narrative format that captured the complexity of the participants' experiences and perspectives.

4. RESULTS AND DISCUSSION

This study focused on exploring formative assessment methods employed and constraints faced by teachers when assessing pupils with learning disabilities in inclusive schools within Temeke Municipality, Tanzania.

4.1 Demographics of Respondents

The study involved 22 classroom teachers, with a diverse demographic profile. In terms of age, 10 teachers (45.5%) were aged between 25 and 35 years, while 12 teachers (54.5%) were aged between 36 and 60 years. Regarding their educational qualifications, 13 teachers (59.1%) held certificates, while 9 teachers (40.9%) had bachelor's degrees. As for teaching experience, all 22 teachers (100%) had between 5 and 30 years of experience in the profession, reflecting a wealth of expertise among the participants. The summary of demographics of the respondents is provided in Table 1 below.

Table 1. Demographics of Respondents

Demographic Category	Number of Teachers	Percentage (%)
Age Range		
25–35 years	10	45.5%
36–60 years	12	54.5%
Qualification		
Certificate	13	59.1%
Bachelor's Degree	9	40.9%
Teaching Experience		
5–30 years	22	100%

Table 1 summarizes the demographic profile of the 22 classroom teachers in terms of age, qualification, and teaching experience. The first column represents the category, the second column gives the actual number of teachers, and the third column provides the percentage.

4.2 Formative Assessment for Pupils with Learning Disabilities

The study aimed to assess the formative assessment methods used by teachers in public primary schools, specifically focusing on those employed for pupils with learning disabilities in inclusive settings. A total of 22 teachers participated in the study, which was guided by the research question: *What are the common formative assessment methods used for pupils with learning disabilities in inclusive schools?* The results revealed that 20 teachers (90.9%) identified quizzes, tests, and examinations as the most common formative assessment methods for evaluating pupils' learning progress. Additionally, 18 teachers (81.8%) reported using task performance as a key method for assessing student progress. These findings suggest that, while traditional assessments such as quizzes and exams remain predominant, task performance is also widely recognized as an effective method for gauging pupils' learning in inclusive classrooms. Results are summarized in Table 2.

Table 2. Formative assessment method for pupils with learning disabilities

Assessment Method	Number of Teachers (n=22)	Percentage (%)
Quizzes, Tests, and Examinations	20	90.9%

Assessment Method	Number of Teachers (n=22)	Percentage (%)
Performance of Tasks	18	81.8%

From the data presented in Table 2, it is clear that a significant majority of teachers rely on traditional methods, such as quizzes, tests, and examinations (90.9%), while a substantial number also use task performance (81.8%) as a means of assessing pupils in public primary schools. This shows a combination of traditional assessment practices alongside more active, performance-based methods to gauge pupils' learning outcomes.

4.2.1 Quizzes, Tests and Examinations

According to Table 2, the findings indicated that 90.9% of the participants identified quizzes, tests and examinations as common method used in formative assessment to the pupils with learning disabilities. One participant argued as follows:

The use of formative assessment methods in inclusive classrooms, particularly for pupils with learning disabilities, plays a significant role in ensuring that all learners, including those with special needs, are effectively evaluated and supported in their academic growth. Quizzes, tests, and examinations gauge pupils' understanding and track their progress. However, the approach to these assessments is adapted depending on the nature of the student's disability. For example, some pupils with hearing impairments are assessed using sign language instead of oral communication, highlighting the need for customized assessment approaches that cater to individual learning needs.

In addition to traditional quizzes and written tests, some teachers incorporate oral assessments, particularly for pupils with hearing impairments

Teachers use sign language to facilitate communication during these assessments, allowing pupils to demonstrate their understanding. The flexibility in assessment formats, including the provision of extra time for pupils who may need it due to their disabilities, is another crucial component of this approach. For example, when pupils with hearing impairments are given extra time during exams, it ensures they have adequate time to process the information and respond appropriately, acknowledging the cognitive differences that may affect their performance. This personalized assessment approach reflects a commitment to inclusion, ensuring that pupils with disabilities are not disadvantaged during assessments compared to their peers.”(Semi-structured interview, Classroom Teacher 20, School B, August 2024)

Teachers also highlighted the importance of adapting assessment methods to suit the specific needs of each pupil.

“For example, some pupils, particularly those with severe learning disabilities, may require assessments that are more aligned with their developmental stage rather than their age or grade level. Teachers make adjustments such as using simpler language, providing visual aids, or even modifying the format of quizzes and exams to ensure that all pupils can participate in assessments meaningfully. This approach is crucial for ensuring that formative assessments are truly reflective of each student's abilities and learning progress, rather than simply

testing their capacity to meet generic academic standards.” Semi-structured interview, Classroom Teacher 10, School C, August 2024)

All in all the extracts above show that formative assessments for pupils with learning disabilities in inclusive schools require a flexible, multifaceted approach that takes into account both academic and non-academic development. Traditional assessment methods like quizzes, tests, and examinations are still prevalent, but they are adapted to meet the diverse needs of pupils. Additionally, assessments often go beyond academic content to include evaluations of life skills and social integration. This approach not only helps ensure that pupils with learning disabilities are supported in their academic growth but also promotes their overall development and inclusion within the classroom. Through tailored assessment strategies, educators strive to create a supportive learning environment that accommodates the unique needs of all pupils, allowing them to thrive academically and personally.

4.2.2 Performance of Tasks

Moreover, the findings are indicated in Table 2 **show** that 81.8% of participants disclosed that formative assessment is conducted by performance of tasks. To reinforce the argument one of the participants stressed as follow:

“Formative assessment for pupils with learning disabilities, particularly those with hearing impairments, often involves a blend of traditional assessments and task-based evaluations tailored to their specific needs. Teachers emphasize the importance of adapting assessments to fit the individual capabilities of each student. For instance, in the initial stages, assessments are made based on the child's current abilities, often in collaboration with external support like the Braille center. These assessments help determine the most appropriate learning stage for the child and ensure that their educational needs are addressed” (Semi-structured interview, Classroom Teacher 18, School C, August 2024)

In supporting the view another participants contributed

“In some cases, pupils may engage in health lessons or life skills training, where tools like mirrors are used to teach self-care routines and basic social interactions, such as greetings. These activities not only support skill development but also serve as informal assessments of the child's progress. In this context, the assessment is not just about academic skills but about practical tasks, such as eating, moving, and communicating effectively.” (Semi-structured interview, Classroom Teacher 17, School D, August 2024)

It was further elaborated by another respondent as follows:

“In addition to these task-based assessments, pupils with special needs may also undergo more formalized testing, including written and oral exams. However, these assessments are adjusted to account for the slower pace of learning and the unique communication challenges faced by the pupils. For example, deaf pupils may take oral exams using sign language, with additional time allowances to ensure they have enough time to process and respond to questions.” (Semi-structured interview, Classroom Teacher 15, School C, August 2024)

Another participant emphasized that:

“Teachers also employ a variety of practical methods to assess pupils' learning and development. For instance, in classes for children with visual impairments, assessment techniques may include tasks such as using tactile methods and practical demonstrations. Teachers observe pupils' ability to interact with their environment and use specialized tools, such as mirrors or tactile objects, to assess their understanding of concepts. This hands-on approach is especially important for pupils with disabilities, as it allows them to demonstrate their learning through real-world interactions, which are often more meaningful and accessible to them.” (Semi-structured interview, Classroom Teacher 10, School F, August 2024)

Finally, it was argued that by the participant as follows:

“Teachers also use classroom exercises as a way to assess understanding, with questions and tasks designed to gauge pupils' comprehension and ability to communicate their knowledge, whether verbally, through sign language, or using visual aids. This holistic approach ensures that assessment is not one-size-fits-all but is flexible and responsive to the individual needs of each student. In all cases, formative assessment methods are focused not only on the acquisition of academic knowledge but also on the development of essential life skills, fostering an inclusive and supportive learning environment.” (Semi-structured interview, Classroom Teacher 15, School C, August 2024)

Moreover, a significant portion of task performance also involves non-academic aspects of development, such as life skills and behavioral assessments.

“For pupils with physical disabilities, assessment may also focus on mobility and social interaction, including their ability to navigate their environment independently. Teachers monitor progress in these areas by assessing pupils' physical and social development, such as their ability to move from one place to another or their engagement in activities like eating independently. These assessments are typically done through observation and practical tasks, which help to track pupils' functional progress and overall well-being, in addition to their academic achievements.” Semi-structured interview, Classroom Teacher 15, School F, August 2024)

The extracts highlight the diverse and tailored formative assessment methods used for pupils with learning disabilities in inclusive schools. Teachers employ a combination of formal assessments, such as quizzes, tests, and exams, and more personalized task-based evaluations. These assessments are adjusted to the individual needs of pupils, particularly those with hearing impairments, and include using sign language for oral exams, extended time for testing, and classroom exercises. In addition to academic assessments, teachers incorporate practical life skills training, such as health lessons and social interactions, using tools like mirrors to assess personal care skills. This holistic approach ensures that both academic and non-academic progress is evaluated, supporting the development of essential skills and fostering an inclusive learning environment.

4.3. Constraints Associated with Pedagogical Methods

The study aimed to explore the common constraints faced by teachers in assessing pupils with learning disabilities. The guiding research question was: *What constraints do teachers*

encounter when applying assessment strategies for pupils with learning disabilities in inclusive classrooms? The findings revealed the challenge of inadequate resources in schools for pupils with learning disabilities is a critical issue that significantly impacts both teaching effectiveness and student learning outcomes. This finding synthesizes the views of 22 classroom teachers from various schools, who were interviewed regarding the challenges they face in educating children with learning disabilities. A summary of these findings is presented in Table 3 below.

Table 3. Constraints associated with Formative Assessment

Constraints	Number Respondents	of % of Respondents
Lack of Teaching Aids and Visual Supports	12	54.5%
Overburdened Staff and Human Resources	15	68.2%
Inadequate Support for Special Needs	14	63.6%
Low Community Awareness and Preparedness	10	45.5%
Logistical Challenges (Food, Absenteeism)	13	59.1%

4.3.1 Lack of Teaching Aids and Visual Supports

According to Table 3, the findings indicate that 54.5% revealed that one of the most significant challenges faced by teachers is the lack of specialized teaching aids and visual supports for pupils with disabilities, particularly those with visual impairments. For example, classroom teacher 1, school A highlighted that:

"There are absolutely no visual aids for these pupils with visual disabilities. This lack of resources forces teachers to spend a considerable amount of time improvising lessons and creating makeshift materials. Teachers noted the absence of essential tools like projectors, which are particularly crucial in classrooms with children who have special needs". (Semi-structured interview, Classroom Teacher 1, School A, August 2024)

Similarly, Classroom Teacher 13, School D explained that in their school, there are only limited teaching resources, such as one projector for several classrooms.

"The biggest challenge is that children who are just starting out have no language. They come from home with no ability to communicate, and we have to start from the basics." The limited availability of visual aids, coupled with the need for individualized attention, further complicates the teaching process." (Semi-structured interview, Classroom Teacher 13, School D, August 2024)

Moreover, Classroom Teacher 9, School C also discussed how the lack of appropriate resources affects teaching effectiveness:

"The biggest challenge is the tools for teaching and learning. We do not have enough resources that align with the lessons themselves, so the teacher ends up spending a lot of time thinking about how to present the lesson in a way that is

understandable and accessible to the pupils." (Semi-structured interview, Classroom Teacher 9, School C, August 2024)

These responses demonstrate a widespread challenge across schools: the absence of specialized teaching tools and visual aids that would significantly enhance the learning experience for pupils with disabilities.

4.3.2 Overburdened Staff and Lack of Human Resources

Results in Table 3 indicate 68.2% of participants identified overburdened staff and lack of human resources as barrier for using effective pedagogical method. A recurring theme in the interviews is the severe shortage of staff, which significantly affects the quality of education for children with learning disabilities. Teachers report feeling overburdened due to the high pupil-to-teacher ratio, which limits the amount of individualized attention they can provide. For example one Classroom Teacher 6, School B stated:

"There are very few teachers. For children with mental disabilities, one teacher should teach no more than five children, but we have only four teachers for 84 children. This disproportionate ratio creates immense pressure on teachers, who struggle to provide the necessary support to each student." (Semi-structured interview, Classroom Teacher 6, School B, August 2024)

Further emphasizing the staffing issue, Classroom Teacher 6, School E shared that:

"Absenteeism is a huge problem, particularly due to the lack of food at home. When the parents are unable to provide for their children, they stay home, and the children miss school. Without adequate support services like dormitories or transport, maintaining consistent attendance becomes a challenge." (Semi-structured interview, Classroom Teacher 6, School E, August 2024)

Classroom Teacher 9, School C added,

"There are no teachers specifically assigned to children with disabilities. The few teachers we have are expected to teach all pupils, including those with special needs, without the resources or time to give them the individual attention they require." (Semi-structured interview, Classroom Teacher 9, School C, August 2024)

Together, these voices highlight a critical issue: the shortage of teachers and support staff, which is compounded by the overwhelming number of pupils, making it difficult for teachers to meet the individual needs of pupils with disabilities.

4.3.3 Inadequate Support for Special Needs Pupils

Based on Table 3, the finding indicates that 63.6% identified inadequate support for special needs pupils as another major challenge faced by teachers. Many pupils arrive at school without the foundational skills required to succeed, creating additional barriers to effective learning. For example Classroom Teacher 13, School D explained,

"Many children who come to us have no language at all. They arrive from home with no ability to communicate, and we have to start from the very beginning, teaching them to read by symbols or numbers by symbols. This lack of

foundational skills puts immense pressure on teachers to fill in gaps that should have been addressed before the children entered school” (Semi-structured interview, Classroom Teacher 13, School D, August 2024)

In a similar vein, Classroom Teacher 6, School E noted that

“When food service is delayed, it becomes a challenge. There is also absenteeism due to the lack of food at home. Many pupils with disabilities come from impoverished families, and the lack of basic necessities, such as food, contributes to irregular attendance and challenges in their learning progress.” (Semi-structured interview, Classroom Teacher 6, School E, August 2024)

Classroom Teacher 9, School C shared that many pupils are not adequately prepared for schooling:

“They arrive not knowing how to read or even speak for themselves. They have not had early intervention or the support they needed before enrolling. This lack of preparation creates additional challenges for teachers in meeting the pupils’ educational needs.” (Semi-structured interview, Classroom Teacher 9, School C, August 2024)

These testimonies underscore the profound difficulties teachers face in educating pupils who arrive with significant gaps in essential skills, further compounded by the lack of preparatory support.

4.3.4 Community Awareness and Preparedness

Moreover, Table 3 indicates that 45.5% of the participants identified a significant gap in community awareness and preparedness for enrolling pupils with learning disabilities. Many teachers pointed out those pupils with disabilities are often enrolled late or without adequate preparation, which makes the learning process even more challenging. For example, it was emphasized by Classroom Teacher 11, School F who explained,

“The awareness of the community is low. That’s why many children with disabilities are not brought to school on time. It’s almost as if they have been hidden away at home until they are finally brought to school when they are much older. This delayed enrollment results in children entering the education system at an age where they are already significantly behind their peers.” (Semi-structured interview, Classroom Teacher 11, School F, August 2024)

Moreover, Classroom Teacher 6, School E echoed this sentiment:

“There is a low level of awareness among parents. Many children are brought to school late, without any preparation, which makes our job harder.” This lack of early identification and intervention makes it challenging for teachers to support pupils effectively from the beginning. The lack of community awareness regarding the importance of early intervention and timely enrollment for pupils with disabilities exacerbates the challenges teachers face in providing quality education. (Semi-structured interview, Classroom Teacher 6, School E, August 2024)

4.3.5 Logistical Challenges: Food, Absenteeism, and Limited Services

Finally, Table 3 indicates that 59.1% of the respondents indicated that teachers also face logistical challenges, particularly regarding food insecurity, absenteeism, and the lack of basic services like transportation and dormitories. For example, Classroom Teacher 6, School B reported,

"The food service provided by the government is delayed. For example, from May to August, we have not received any funding for the children's food. These children come from families with little means, and the delay in food delivery severely impacts their well-being and attendance." The lack of consistent food services affects not only the pupils' physical well-being but also their ability to attend school regularly" (Semi-structured interview, Classroom Teacher 6, School B, August 2024)

Classroom Teacher 8, School E further highlighted how absenteeism due to food insecurity impacts student learning:

"Absenteeism is a huge problem, particularly due to the lack of food at home. When the parents are unable to provide for their children, they stay home, and the children miss school." Without transportation or dormitories, many children are unable to attend school consistently, which disrupts their educational progress. These logistical challenges compound the educational difficulties faced by pupils with learning disabilities, making it even harder for them to succeed academically. (Semi-structured interview, Classroom Teacher 8, School E, August 2024)

The testimonies from the 22 classroom teachers provide a clear picture of the multifaceted challenges faced by schools serving pupils with learning disabilities. The lack of appropriate teaching aids, understaffing, inadequate preparation and support for pupils, low community awareness, and logistical issues such as food insecurity and absenteeism all contribute to an environment where both pupils and teachers struggle to succeed. Addressing these issues requires comprehensive action, including investment in specialized resources, teacher training, community awareness campaigns, and better logistical support. Only with such improvements can we hope to provide a more inclusive and effective education for children with learning disabilities.

The study sheds light on how formative assessment techniques are employed in classrooms for pupils with learning disabilities, revealing a close alignment with the assessment methods used in regular classrooms. Formative assessments, such as quizzes, tests, and examinations—both oral and written—are common tools used by teachers to gauge pupils' understanding and progress. This finding is significant because it underscores that, in practice, assessments for pupils with learning disabilities may not be substantially different from those used for regular pupils, despite the unique challenges these pupils face. These techniques, while widespread, raise important questions about the inclusivity and appropriateness of these practices in special education contexts. Such a standardized approach to assessment may overlook the distinct learning needs of pupils with disabilities, which require more individualized and adaptive methods (Schildkamp et al., 2020).

One key aspect emphasized in the study is that formative assessment is defined not by specific instruments or methods but by its purpose: to inform and enhance teaching and learning.

Trumbull and Lash (2013) argue that formative assessments are intended to provide continuous feedback that guides instructional decisions and supports the student's learning process. This concept challenges the traditional focus on standardized instruments and highlights the importance of assessing how well these tools meet the needs of pupils with disabilities. In this context, the study suggests that while quizzes and tests are commonly used, their real effectiveness lies in their ability to offer ongoing insights into pupils' progress, particularly for those with learning disabilities. By focusing on the purpose rather than the specific tools used, formative assessment becomes a more flexible and dynamic process that can be tailored to meet the needs of all learners, including those with special educational needs (Kitson & Chavarria, 2021).

A critical finding of the study is the absence of clear criteria for assessing pupils with learning disabilities, with many participants noting that assessments are often conducted using the same standards as for regular pupils. This uniform approach to assessment can be problematic, as pupils with learning disabilities often require accommodations or alternative methods to demonstrate their knowledge. The lack of tailored criteria for these pupils points to a gap in the current curricula, where differentiation in assessment standards may not be sufficiently emphasized. As argued by Mertler (2020), assessment frameworks should account for the diverse needs of pupils, particularly those with disabilities, to ensure that evaluation is both fair and meaningful. This issue highlights the need for a more individualized approach to formative assessment that takes into account the diverse needs of pupils with disabilities, aligning with the broader principles of inclusive education (Sharma & Siti, 2022).

In inclusive classrooms, where pupils with disabilities learn alongside their typically developing peers, the need for differentiated assessment becomes particularly important. Formative assessment should not only measure academic performance but also reflect the unique challenges and strengths of each student. For pupils with learning disabilities, the use of standardized assessments designed for regular pupils may not provide an accurate reflection of their abilities. By applying the same criteria to all pupils, teachers risk overlooking critical aspects of learning that are unique to pupils with disabilities. This calls for a shift towards more inclusive and differentiated assessment strategies that accommodate diverse learning needs and offer a fairer evaluation of progress (Ellis & Miller, 2021).

The study also revealed that formative assessments for pupils with learning disabilities are often carried out through classroom exercises or exams, similar to the methods used for regular pupils. These assessments allow teachers to gauge student progress effectively in real-time. However, while these tools may be familiar and easy to administer, they might not always provide the most accurate or comprehensive picture of a student's capabilities, particularly for those with learning disabilities. For example, written exams may not fully capture the abilities of pupils who struggle with reading or writing, and oral assessments might be challenging for those with speech or language impairments. Such methods may inadvertently exclude pupils with specific disabilities, thus failing to fully reflect their understanding or potential (Simonsen & Freeman, 2020).

A significant point raised by Schildkamp et al. (2020) is that formative assessment is a dynamic process that enables real-time evaluation of pupils' performance. This real-time assessment allows teachers to adjust their instructional strategies promptly based on the student's needs. In the context of pupils with learning disabilities, this form of assessment is invaluable, as it provides teachers with immediate feedback on how well their pupils are engaging with the material and whether additional support is necessary. By incorporating formative assessments into daily classroom activities, teachers can continuously monitor progress and tailor their teaching methods to better meet the needs of pupils with learning disabilities. Such flexibility in

formative assessment provides an opportunity to make immediate interventions that support student success (Sharma et al., 2021).

One of the challenges raised by the study is the tendency to apply standardized assessments to all pupils, regardless of their individual learning needs. This approach can be particularly problematic in the context of special education, where pupils with learning disabilities often require accommodations or modifications to participate fully in assessments. For instance, a student with dyslexia may need extra time for reading or a different format for written assessments. Without such accommodations, the assessment may not accurately reflect the student's understanding of the content. This highlights the need for a more flexible approach to formative assessment that takes into account the varied learning profiles of pupils with disabilities, ensuring that all pupils are evaluated in a way that is fair and appropriate to their individual learning needs (Kitson & Chavarria, 2021).

The study also suggests that the role of the teacher in shaping formative assessment practices is crucial. Teachers are not simply administrators of tests but active participants in the process of assessing and adapting their teaching strategies. For pupils with learning disabilities, the teacher's understanding of the student's needs plays a significant role in how assessments are designed and implemented. Teachers who are familiar with the specific challenges of their pupils are better equipped to modify assessments and instructional techniques accordingly. This highlights the importance of ongoing professional development for educators, particularly in inclusive settings, where a deeper understanding of special education needs is required to implement effective formative assessment strategies (Ellis & Miller, 2021).

Given the challenges identified in the study regarding the lack of tailored criteria for assessing pupils with disabilities, it becomes clear that more specific guidelines are needed. Teachers often struggle to apply appropriate assessment techniques without a clear framework that addresses the unique needs of pupils with learning disabilities. The absence of such guidelines can lead to inconsistent and sometimes unfair assessment practices. There is a pressing need for educational policymakers to develop clear, practical guidelines that support teachers in creating and implementing assessments that are appropriate for all learners, including those with special needs. Such guidelines would ensure that formative assessments are more inclusive and equitable, providing teachers with the tools and knowledge needed to assess pupils effectively (Sharma & Siti, 2022).

All in all, while formative assessment is a valuable tool for monitoring student progress, the study reveals several areas for improvement in its application for pupils with learning disabilities. The findings highlight the need for more differentiated and individualized assessment practices that account for the specific needs of these pupils. Moving forward, educators must be provided with the necessary resources, training, and guidelines to effectively assess pupils with learning disabilities. This includes developing more flexible assessment tools, providing clear criteria for assessment, and fostering a deeper understanding of inclusive education practices. By doing so, we can ensure that formative assessments truly enhance the learning experience for all pupils, regardless of their abilities (Schildkamp et al., 2020; Kitson & Chavarria, 2021).

5. CONCLUSION

The study concludes that employing a range of assessment techniques plays a crucial role in improving the academic performance of pupils with learning disabilities in inclusive educational settings. The findings highlight that a varied approach to assessment can better address the diverse learning needs of these students, ultimately fostering a more supportive and effective learning environment. This approach ensures that teachers are equipped to evaluate and

support the progress of students with learning disabilities comprehensively. Therefore, it is essential that assessment strategies in inclusive classrooms are both diverse and adaptable to the individual needs of students.

6.RECOMMENDATIONS

Based on the findings, the study recommends that the government prioritize the implementation of regular professional development programs for teachers, with a specific focus on enhancing their skills in formative assessment and special needs education. These programs should aim to equip teachers with the necessary knowledge and strategies to effectively assess and support students with learning disabilities. Additionally, ongoing training will help teachers to refine their pedagogical practices and adapt to the varying needs of their students. By investing in teacher development, the government can help create a more inclusive educational environment that benefits all learners.

Ethical Approval:

Ethical considerations were a priority throughout the research process. The study adhered to ethical guidelines by obtaining research clearance from the Directorate of Research, Publications, and Innovation at the Open University of Tanzania. Additionally, the study ensured the confidentiality and anonymity of all participants, strictly maintaining privacy throughout data collection and reporting. These ethical measures were critical in protecting the rights and dignity of participants, ensuring the integrity of the research process.

Disclaimer (Artificial intelligence)

Option 2:

I hereby declare that I used CHATGPT to refine some of the statements during writing and editing while maintaining the my original material. However, I did not serve the prompts.

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