

Framework for contextualising differentiated assessment for learner support in the Nigerian and South African foundation phase school contexts

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ABSTRACT

This paper presents a theory-based conceptual framework the researchers developed to promote differentiated assessment in the Foundation Phase for equitable assessment practices in Nigerian and South African mainstream schools. The literature presents varied assessment frameworks to address injustices and discriminations for the 'ideal' learner. However, learners with special educational needs (SEN) remain segregated in the ongoing discourse of equity in classroom assessments. The researchers used the model of modelling in a mixed method approach to develop a framework incorporating Sen's capability approach, Gardner's theory of multiple intelligences, and Lave and Wenger's community of practice. The framework was tested for reliability by triangulating teachers' surveys and semi-structured interviews anchored by the three theories to indicate inclusive variable considerations for differentiated assessment. The themes confirmed different knowledge variables about policies and guidelines, transdisciplinary collaboration, skills to align assessments with dominant intelligence crucial for differentiated assessment, and learner support requirements for learning success.

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Introduction

Mainstream schools are inclusive schools that uphold the principles of equity and equality by providing a learning environment that caters to all learners, including those with special educational needs (SEN) (Buckley-Walker and Lipscombe 2021). The term SEN has been popularly used to refer to learners with auditory, visual, and speech impairments or intellectual disabilities (Alqahtani 2023; Tohara 2021). However, this definition has been deemed insufficient and narrow in scope. The International Standard Classification of Education (ISCED) states that learners with SEN are learners who 'for a wide variety of reasons, require additional support and adaptive pedagogical methods to participate and meet learning objectives in an education programme. Reasons may include disadvantages in physical, behavioural, intellectual, emotional and social capacities' (UNESCO Institute for Statistics 2012, 83). In line with the 2030 Sustainable Development Goal (SDG) 4, it is expected that mainstream schoolteachers' pedagogical and assessment practices 'ensure inclusive and equitable quality education that promote lifelong learning opportunities for all' (SDG, 4). Equity in classroom assessment ensures fair opportunities to demonstrate mastery without being disadvantaged by their inherent special needs or having an advantage over peers.

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However, most African countries struggle to evolve the education systems, specifically assessment which has historically been rooted in racial discrimination, inequality and social injustices, into a system based on human rights, fairness and equity (Ngwaru and Dreyer 2021). Assessment in most African countries is often summative and standardised potentially disadvantaging vulnerable learners, especially those with SEN. Furthermore, the results from these assessments lack construct validity as it cannot be inferred that they represent a true depiction of the knowledge and skills that the learner mastered (UNESCO 2020). Determining learners' abilities and progress in mainstream schools based on skewed and discriminatory assessments creates a crack in the system (Geldenhuys and Wevers 2013; UNESCO 2020). In 2021, UNICEF revealed that compared with typically developing children, those with disabilities and special needs are 47 per cent more likely to be out of primary school, and 41 per cent more likely to feel discriminated against. A paradigm shift is needed from understanding and using assessment as a discriminatory tool to an inclusive tool for promoting learners' equitable access to the curriculum and quality education (Hegarty and Finlay 2020). Moreover, the Committee on the Rights of Persons with Disabilities (2016, 9) has called on all mainstream schools to 'replace standardised assessments with flexible and varied forms'. Additionally, they emphasise the importance of 'recognising individual progress towards broader goals and providing alternative pathways for learning' (CRPD 2016, 9).

Although teachers are expected to be qualified and trained to cater to varied abilities, they must be supported (Burkett 2013; Mpanza and Govender 2022). Mainstream schools should be viewed as a community-centred system within a social and ecological framework where stakeholders collaborate to exchange their expertise, make choices, and address challenges. However, empirical findings on the support received and required by mainstream schoolteachers to specifically differentiate assessments are significantly lacking. If teachers are not adequately supported in differentiating assessments in their classrooms, they may feel less confident, and overwhelmed, ultimately diminishing their self-efficacy (Hofman and Kilimo 2014; Makhalemele and Payne-van Staden 2018; Nel et al. 2014). In Nigeria and South Africa, a multidisciplinary team of professionals has been tasked with the responsibility of supporting mainstream teachers to meet the needs of all learners in their classrooms (Makhalemele and Payne-van Staden 2018; Mkwanazi 2023; Van Zyl 2023). Through effective support and collaboration, mainstream schoolteachers can better accommodate all learners in their assessment irrespective of their special educational needs.

Based on the above argument, this paper presents a theory-based framework developed using a model of a modelling framework for teachers to contextualise differentiated assessments in Nigerian and South African mainstream classes. The researchers examined the two African countries due to their experiences as teachers and researchers in the Foundation Phase. Additionally, there is a dearth of empirical data and literature on differentiated assessment conducted in Nigeria and South Africa. The framework aims to support teachers in making inclusive classroom assessment choices for all learners in mainstream classes while acknowledging their varied inherent abilities.

Research question

What framework can Nigeria and South Africa develop to contextualise differentiated assessment practices for learner support in the Foundation Phase mainstream school contexts?

Literature review

A model for the modelling framework

This paper used the model of modelling framework Justi and Gilbert (2002) to develop a differentiated assessment framework for learners in Nigerian and South African mainstream schools. The framework interfaces complex considerations for success and sustainability. Justi and Gilbert's (2002) framework suggests that the development and revision of models require cyclical processes

and the application of mental processes to ensure effectiveness. In addition, Govindasamy et al. (2019) argue that models and frameworks must be tested for reliability to ensure purpose relevance.

Motivation for differentiated assessment

Traditional assessments pose a barrier and are exclusive tools preventing several learners from accessing quality education, especially those with SEN (Noman and Kaur 2014). More than ever, the onus lies on mainstream schoolteachers to recognise and embrace diversity as the norm, collaborate with other stakeholders to implement inclusive assessment approaches and consider learners' abilities, strengths, and special needs (Doubet, Hockett, and Tomlinson 2018). To do this, teachers must implement differentiated assessments to create diverse pathways for learners to optimally demonstrate their abilities and skills (Doubet, Hockett, and Tomlinson 2018; Tomlinson and Imbeau 2023). According to the South African Department of Basic Education (DBE), differentiated assessment involves 'accommodations and adaptations that are designed to equalise opportunities for all learners by addressing barriers which they may experience and provide support to enable the learners to give a true account of their knowledge and/or skills' (DBE 2017, 168). It is important to note that differentiated assessment does not compromise the assessment standard nor provide an advantage over other learners (DBE 2017). It is an inclusive framework that 'considers learners' skills, readiness, interests and needs' which can foster accessibility, motivation, and efficiency for all learners (Tomlinson 2014, 1).

Differentiated assessment ensures that the curriculum is accessible to all learners and provides ways to display their knowledge and skills (Tomlinson and Moon 2013). It enables mainstream schoolteachers to gather valid evidence using assessment methods aligned with learners' abilities. The information allows teachers to make informed instructional decisions to promote learning and provide interventions and support tailored to progress the learners. Differentiated assessment can also foster motivation. Tomlinson and Moon (2013) posited that differentiated assessment can effectively promote learner motivation in consideration of their interests and learning profiles. Skinner and Belmont (1993, 3) further attest that when learners are motivated, they 'initiate action when given the opportunity, and exert intense effort and concentration in the learning tasks. They generally show positive emotions, including enthusiasm, optimism, curiosity, and interest'.

However, learners are often forced to demonstrate their competency levels orally or through a written assessment in a regulated environment (Chiziwa and Kunkwenzu 2021; Ndubueze et al. 2015). The assessment practice may demotivate learners with SEN and increase their anxiety levels. Many research studies have established learners with SEN might not speak in situations where they are anxious (Kearney and Rede 2021; Schwenck et al. 2021). Differentiated assessment considers the learner's peculiarity in deciding viable assessment methods to demonstrate their learning, which may lead to increased learner participation and engagement with assessment tasks. Furthermore, differentiated assessment promotes efficiency by gathering accurate and relevant information that can be used to make informed decisions about a learner's progress and support needs (Tomlinson and Moon 2013). Few research studies were conducted on differentiated assessment globally, with fewer studies conducted in Africa and South Africa and almost none in Nigeria (Noman and Kaur 2014). Hence, the marginalisation and discrimination of learners with SEN in mainstream schools prevail in these countries.

Framework for contextualising differentiated assessment for equitable assessment practices

The theory-based conceptual framework suggested in this paper comprised Sen's (1992) capability approach to evaluating the equity of assessment policies and practices in mainstream schools. Gardner's theory of MI investigated how differentiated assessment could promote equitable practices for

learners with varied abilities. Lave and Wenger's (1991) CoP was used to understand teacher support and professional partnerships. These three theories were chosen based on the varied educational requirements of SEN learners and targeted learners' holistic support requirements.

Capability approach

The Capability Approach, introduced by Sen in 1992 and developed further by Nussbaum in 2000, is a framework that focuses on social justice in economics. Moreover, this framework is gaining ground Unterhalter (2013); Walker and Unterhalter (2007) to investigate and address social justice issues, fairness, and equity in mainstream schools (Brando 2020; Hart and Brando 2018). The capability approach consists of three key concepts, including capabilities, functionings, and differences. The concept of capabilities refers to 'what people can do and be when given real opportunities' (Nussbaum 2000, p. 5). They are the innate potentials that every learner possesses to achieve results given the right opportunities. Teachers must recognise and acknowledge that all learners have the capabilities and potential to varying degrees when assessment strategies provide them with the opportunities to achieve certain doings and beings (Robeyns 2021). Functionings refer to 'various states of doings and beings' that individuals can achieve (Sen 1992, p. 40). They are the 'achievement of a person: what she or he manages to do or to be' (Sen 1985, p. 12). However, traditional approaches to assessment, based on a pencil-paper assessment, have for centuries narrowed the opportunities for learners to attain or realise certain functionings. When the assessment practices of mainstream schoolteachers are not differentiated to accommodate the diverse capabilities of learners, many learners, especially those with SEN, fall through the cracks and are labelled as underachievers, unable to flourish in a mainstream school. Hence, for functionings to be realised, intrinsic and extrinsic differences must be acknowledged (Dalkilic and Vadeboncoeur 2016; Reindal 2016; Sen 1999). According to this framework, differences are the freedom a learner is given to achieve their capabilities and convert them into functionings (Sen 1999). Learners are referred to special schools because their differences are often perceived as foreign to the accepted norm. Additionally, teachers are not prepared to accommodate these differences, which they perceive as a burden.

Theory of Multiple Intelligences (MI)

In 1983, Howard Gardner introduced the Theory of MI. While the theory proposes a biological foundation for intelligence, it does not imply that intelligence is solely genetic and inherited (Gardner 1983, 1999). Gardner recognised the social and cultural aspects of intelligence and defined nine areas of intelligence (Altan 2020; Gardner 1983, 1999). These intelligences include verbal, logical-mathematical, spatial, bodily-kinaesthetic, musical, interpersonal, intrapersonal, naturalist, and spiritual intelligence (Gardner 1983). Gardner believed that every learner brings a combination of all nine bits of intelligence to the classroom, each with varying degrees of strength and these can be nurtured and developed (Altan 2020; Gardner 1983). Therefore, assessment should be differentiated to accommodate the diverse intelligences present in each learner. Learners do not possess the same dominant intelligence, hence, to determine what all learners know and can do through a standardised assessment is unfair. Most African countries only focus on measuring knowledge in one way, often paper and pencil-based assessment, which should not be the case, particularly in mainstream schools (Altan 2020). Most of the time, assessments focus on verbal/linguistic and mathematical/logical intelligence, involving left-brain functions and skills. Multiple intelligences-based assessment takes advantage of the dominant intelligences possessed by learners to demonstrate their abilities (Rofiah 2016). Multiple intelligences theory is also used in this framework to explore the technology used to differentiate assessment and support learners with SEN (Almeida et al. 2010). Growing evidence in the literature argues that technology is crucial in differentiating assessment, particularly for learners with SEN (Kivunja 2015; Wegerif 2015). Incorporating technology may significantly increase learners' active participation and engagement with their learning activities and

assessment tasks (Kivunja 2015). Furthermore, integrating technology enhances learners' engagement in assessment in a fun, gamified, and pedagogical manner, promoting critical thinking at higher levels of cognition (Kivunja 2015). Technological modifications can aid fundamental skills development, such as tasks that target perception, attention, memory, reading and writing, motor skills, and reasoning. These adaptations allow for adjustments in various aspects, such as the format of accessible content (image, text, sound), the way learners interact with the content (requiring more or less fine motor skill), and the size of the screen (Fernández-López et al. 2013).

Community of Practice (CoP)

A CoP includes individuals who have a common interest and enhance their expertise by regularly engaging in discussions and practices regarding their interest to realise a desired outcome (Wenger et al. 2002). Wenger-Trayner and Wenger-Trayner (2020) identified three essential components of any CoP, which they define as consisting of a joint enterprise (domain), mutual engagement (community), and a shared repertoire (practice) (Wenger 1998). The joint enterprise refers to the 'shared domain' of interest or practice. The common objective propels the CoP and is the main concern that members encounter and to which they are dedicated (Lave and Wenger 1991). In this paper, the common interest refers to differentiating assessment in mainstream schools to provide equitable opportunities for all learners to demonstrate their knowledge and skills. The second vital element of CoP is mutual engagement, which comprises formal and informal discussions, activities and social exchanges, workshops, knowledge-sharing events, and regular interactions in which members interact and learn together (Mortier 2020). The CoP offers a structure for teachers and relevant stakeholders to receive support and collaborate in enhancing their knowledge and expertise in differentiating assessment (Mortier 2020). The third vital element of CoP is practice which represents the outcome of this collective effort to create a shared collection of resources, including experiences, frameworks, tools, and methods for addressing problems (Wenger-Trayner and Wenger-Trayner 2020). A CoP is known for its transdisciplinary, integrated, and coordinated nature, and it involves collaborative systems that operate across different disciplines and organisations (Guralnick 2008; Frankel and Underwood 2012). Successful implementation of differentiated assessment requires collaborative and constructive partnerships among teachers, support professionals, department heads, school principals, community members, and community structures (Nel et al. 2014). A CoP provides learners contextual and relevant support (Mortier 2020). Since the inception of inclusive education, there has been a consistent need to focus on the significance of collaboration among mainstream educators, professionals, parents, and learners (Mortier 2020). The marginalisation of learners will continue as long as various stakeholders continue to work in silos and disregarding contextual factors that require a multidisciplinary intervention (Botha and Kourkoutas 2016).

Method

A mixed-method approach within an exploratory sequential design was used in this study. For the first phase of the study, 100 FP mainstream schoolteachers in both countries were conveniently selected as respondents for the survey. In Nigeria, 50 FP schoolteachers participated from eight mainstream primary schools (private and public schools). A similar sample was applied in South Africa. The participants for the second phase (semi-structured interview) were drawn from those who specified their interest in the interviews to provide in-depth information. Ten FP teachers from Nigeria and ten from South Africa participated in the semi-structured interviews.

Participants

The target population constituted Foundation Phase mainstream schoolteachers from Nigeria and South Africa to enhance item response function, thus improving gathered data reliability. The

sampled teachers were conveniently selected based on their willingness and consent to participate in the study and their prerequisite knowledge and capacity to provide relevant data about the phenomenon investigated. In this regard, 100 mainstream schoolteachers were conveniently selected across Grades 1–3 in both countries to participate in the survey, while 20 Foundation Phase teachers participated in semi-structured interviews. The sample size for the semi-structured interviews was based on the teachers who selected ‘yes’ to be interviewed and provided their contact numbers on the survey forms. Most survey respondents were female, in Nigeria (86%) and South Africa (98%). In Nigeria, most teachers (43%) were between 31 and 40 years old. In South Africa, the largest group of teachers (27%) was over 55 years old, with 18% between 31 and 40 years old. Regarding educational qualifications, 60% of Foundation Phase teachers in Nigeria and 78% in South Africa held a bachelor’s degree as their highest level of formal education. In Nigeria, 20% of teachers had a master’s degree, while 22% held a diploma in South Africa. Regarding teaching experience, 38% of Nigerian teachers reported having 6–10 years of experience. In South Africa, the majority (28%) had over 25 years of teaching experience, while 21% had between 21 and 30 years of experience. In Nigeria, 26% of the sampled teachers were Grade 1 teachers, 21% were Grade 2 teachers, and 52% were Grade 3 teachers. In South Africa, 40% were Grade 1 teachers, 32% were Grade 2 teachers, and 28% were Grade 3 teachers. Concerning learners with special education needs, 58% of teachers in Nigeria reported having no learners with such needs, 33% indicated having 1–2 learners, and 6% noted having 3–5 learners with special education needs. In South Africa, 38% of teachers reported having 1–2 learners with special needs, 21% had 3–5 learners, and 13% had 6–10 learners with such needs. The special educational needs of the learners were mostly Autistic, dyslexic, ADHD, and undiagnosed difficulties that teachers could not specify.

Ethics consideration

Before commencing the fieldwork for this study, the necessary approvals were secured from the ethics committee at the Faculty of Education, of the University of Pretoria with protocol number, EDU165/22. Approval was also received from the pertinent Department of Education, schools and the study’s participants. Once the necessary approvals were secured, the researchers briefed the participants about the study’s objectives to ensure their understanding before they consented to participation (Creswell and Creswell 2018). The willing teachers gave voluntary consent by signing the consent forms. The participants were assured of voluntary involvement and could withdraw at any time without prejudice. Furthermore, their anonymity and confidentiality were protected through pseudonyms and password-encrypted files.

Measures

Data was gathered using a questionnaire and a semi-structured interview. The survey instrument was adapted from the Approaches to Classroom Assessment Instrument (ACAI) (DeLuca, LaPointe-McEwan, and Luhanga 2016). The ACAI was created to represent contemporary methods for assessing learners in the classroom (DeLuca, LaPointe-McEwan, and Luhanga 2016). The ACAI demonstrated its initial construct validity through assessment specialists and a panel of experienced teachers. Hence, this study leveraged the quality of the questionnaire while making it more suitable to the Nigerian and South African contexts. The primary modification from the original questionnaire was adding the section on the support the teachers received and required from the DBST/SBMC to differentiate assessment. The questionnaire was sectioned to measure the FP mainstream schoolteachers’ perceptions, practices, experiences, and support requirements about differentiated assessment studied by using a 4-point Likert scale. The survey’s Likert scale used prompts such as 1 = Strongly Agree, 2 = Agree, 3 = Disagree and 4 = Strongly Disagree. The reliability and validity of the questionnaire items were established based on both the pilot and principal survey

administration, using frequency distributions, internal consistency reliability indexes, and inter-item correlations (Hajjar 2018; Šerbetar and Sedlar 2016).

The responses were obtained from 50 respondents in Nigeria, and the Cronbach alpha value was $\alpha = .805$, which is above the required benchmark of 0.70. The responses were obtained from 50 respondents in South Africa and the Cronbach alpha value was $\alpha = .712$, which is also above the required benchmark of 0.70. 20 semi-structured interviews were also utilised to gather the data with FP mainstream schoolteachers. These teachers volunteered and signed consent forms to participate in the interviews. The interviews further probed teachers' experiences and perceptions of differentiated assessment and the challenges they experience in mainstream schools. All interviews were audio recorded to ensure adequate capturing and reporting of reliable participants' responses. Ten face-to-face semi-structured interviews were conducted with three Grade 1 teachers, two Grade 2 teachers and five Grade 3 teachers across ten Nigerian mainstream schools. In South Africa, six Grade 1 teachers, two Grade 2 teachers and two Grade 3 teachers were interviewed. The semi-structured interviews with the teachers in both countries happened at the teachers' preferred times and locations mostly at their schools.

The survey preceded the semi-structured interviews which after the researchers triangulated the data sets, confirmed the results and found a responses correlation. The triangulated results confirmed the data's quality criterion and trustworthiness.

Data analysis

The numerical data from the adapted questionnaires were coded and analysed using SPSS software (Molina et al. 2024). Statistical software such as SPSS has been widely established and accepted in social science research to assist researchers with analysing, interpreting, and reporting the data. Descriptive statistics were used to summarise the teachers' responses and determine the mean and standard deviation of the independent and dependent variables (Creswell 2012). For this study, the independent variables were the African countries (Nigeria and South Africa), while the dependent variables were the participants' perceptions and practices. Inferential statistics focused on correlation techniques during the data analysis. An independent samples t-test was employed as an inferential statistical test to determine whether there were statistically significant differences between the means of the two countries (Kim 2015). Independent samples t-test is typically utilised when the samples are divided into two independent groups. Given that most items on the questionnaire were nominal or ordinal, the independent samples t-test was considered suitable to evaluate the null hypotheses (Cohen, Manion, and Morrison 2011). Cronbach alpha coefficients were also computed to indicate the internal reliability of the study constructs.

The iterative data-gathering process included refining teachers' responses to build the differentiated assessment framework for learners in mainstream classes. The researchers collaborated on the three theories to anchor the results. They also used Hegarty and Finlay's (2020) International Association for the Evaluation of Educational Assessment to ensure the instrument used drew reliable data. The researchers analysed semi-structured interviews and survey data from which the themes emerged, analysed and compared for reliability.

Results

Teachers' experience of assessing learners with SEN

The quantitative data revealed that fewer teachers in Nigeria (38%) and South Africa (35%) agree 'a lot' that the inclusion of all learners, in the classroom promotes quality education. The qualitative data sought to excavate this view by delving deeper into the feelings and perceptions of mainstream schoolteachers. In both countries, the teachers commented that inclusive education can be overwhelming, frustrating, and challenging as some learners require more attention and time. Hence,

'the need for patience, tolerance, and love' (T6NG). Additionally, most teachers believed that learners with SEN should be placed in special schools to be taught by teachers experienced in teaching special needs learners. The teachers whose responses will be presented using pseudonyms to maintain anonymity indicated they were not equipped nor trained to accommodate and cater to SEN learners. They mentioned these learners 'needed specialists who know about special needs. You can't just pick a teacher and ask them to teach a special needs child' (T9NG). The findings further revealed that the teachers' first encounter with learners with SEN left them feeling incapable, as their formal education did not prepare them for these experiences. T7NG stated, 'I never knew I would be in such a situation'. According to T10NG, 'When the principal told me that the child was going to be in my class, I told her I did not have any experience with autistic children. I might be a teacher, but that is not my specialisation. I don't have any experience in that regard. I had to Google and do my research online' (T10NG). In South Africa, T4SA expressed frustration as she explained: 'I try my best with what I have. I do some Googling on how I can help them, but he needs more than I can give, which is frustrating'.

The above requires knowledgeable teachers to identify learners' capabilities and intelligence to differentiate assessments and encourage intervention, participation and progress for learners with SEN in mainstream schools.

Teachers' assessment practices in the FP

The quantitative results revealed that less than 50% of the teachers in Nigeria and South Africa consider the specific learning needs of learners before determining which type of assessment to use and design a variety of assessment tasks that allow learners to demonstrate learning. However, 52% of teachers in Nigeria indicated that they always plan identical class lessons and assessments for all learners. In South Africa, 64% of teachers use the same scoring rubric. According to T7NG 'I use differentiated method[s] in their classwork. For example, if I have taught English and the English questions have questions one to three, what I do is, differentiate it with higher achievers attempting questions one to three, the middle achievers may be Questions 1–2 and the low achievers may be Question 1. We reduce the quantity so that they are not overwhelmed'. The findings indicated that most teachers in Nigeria and South Africa are considerate and want to support learners' assessments against all odds. However, due to challenges such as time constraints and lack of support, subject learners do the same assessment with little adaptation at the end of the term. T3SA stated that she modified the assessment by enlarging the font size to make it easier for the young learners to see the words. Additionally, she provides her learners with support classes and additional work to practice at home when they do not perform well. Learners unable to write their assessment independently are brought to the teacher's table, where the learner gives the answers orally, and the teacher writes them down. The reliance on written assessment was also emphasised in Nigeria. According to T9NG: 'They write the same exam questions and I follow the scheme. I don't base it on one's ability. They should write what they know ... write it the way they understand it' (T9NG). T8NG indicated that she prepares her learners for the examination as they will have to write their assessment independently because 'on the examination day, the teacher that taught the child will not be in the class ... We do not record or document oral assessment. We only document the written assessment.' Similarly, T4NG stated that the accepted method was written tests. Notwithstanding, she confirmed, '[I] personally use physical activities, play-way and oral assessments'. In contrast, T8SA in South Africa commented that she allows her grade one learners to demonstrate their knowledge orally: 'Then, we'll write the answers for them because, otherwise, they will fail for they know what they're talking about they just have a problem reproducing it on paper.'

In South Africa, some teachers (T2SA, T5SA, T10SA) commented that they considered learners' abilities and ensured that the assessments were learner-centred. In this regard, T2SA stated, 'I try to be as accommodating as I can, but still within regulations of education or what they need to know at that age and what their capability and abilities should be at that age'. T5SA stated that

assessment in the FP should be a ‘natural process. The learner should not be stressed because they are doing assessment’. Some teachers commented that she differentiated her assessments to align with the needs of the learners. T10SA reported, ‘Whether it is verbal, written, or listening and speaking, we try and diversify assessments as much as possible because we all have different markers, we all have different things that catch our attention’ (T10SA). Teachers find it simpler to evaluate cognitive aspects using traditional paper and pencil tests than non-cognitive aspects (Omebe 2014).

Although the teachers attempted different assessment strategies, they were uncomfortable. They required support and training as they were unsure how to capture learners’ progression or whether verbal responses carried the same weight as written assessments.

Differentiated assessment strategies for learners with special education needs

The quantitative results revealed that 48% of the teachers in Nigeria and 24% in South Africa ensure that learners with special needs are always provided with accommodations on all assessment tasks. Some teachers (T4SA, T7NG, T10NG) in Nigeria and South Africa indicated that SEN learners could perform certain tasks. According to T7NG, ‘The boy in my class, the one with autism, is intelligent ... Sometimes he answers questions that the higher achievers cannot answer’. Similarly, T10NG commented, ‘the boy is blessed, and he’s good with calculations’. In SA, T4SA commented that ‘he is severely learning disabled but not stupid, he is intelligent. He found ways to do math, and he does it well’. The findings indicate that learners with SEN can demonstrate their learning when the pedagogic and assessment practices align with their abilities and strengths. Given the learners’ bits of intelligence, the teachers (T2SA, T5SA, T10NG) indicated that they differentiate their assessment based on the learners’ strengths and interests. According to T10NG, ‘You don’t expect a child with autism to be involved in drama presentations. Another strategy is to identify their strengths. I don’t expect a child with autism to be involved in debate so that that child does not become uncomfortable’. In South Africa, T2SA agreed that ‘a lot of the children who suffer with autism and stuff like that are not comfortable even doing a speech in front of a teacher’. T5SA further explained, ‘for learners that cannot count, we give them a paper to join the dots. And if they can join the dots, then it’s the same as the person that can count 1,2,3,4,5’. T5SA added that she assesses her learners with SEN orally. Likewise, T10SA, who is the Head of the Foundation Phase Department at the school, commented that when the teachers notice that the learner is not coping with a form of assessment, ‘We try to approach it from a different angle and give it to them in a different format until we find something that suits them and then we go AHA!’. Therefore, the learners are provided: ‘many opportunities with different assessments although curriculum advisers from the department are not for the idea. Whether it is verbal, written, or listening and speaking’. T4SA explained how she draws on the strengths of the learners with SEN. She stated that although the learner with SEN could not read and write sentences, he learnt by listening, and drawing. Hence, she read to the learner, and the learner could solve mathematical problems. Additionally, she commented: ‘I will tell him; you will draw pictures and tell me a story. I’d read to him, and he would answer questions ... and then I would write for him’ (T4SA). The above indicates misalignment support between teachers and curriculum advisers and the need for CoP to support all learners.

Support mainstream schoolteachers receive to differentiate assessment

The quantitative results revealed that over half of the teachers in Nigeria and South Africa collaborate and receive support from each other with and across grades regarding assessment. However, fewer teachers in Nigeria (30%) and South Africa (17%) indicated that the district officials supported them on accommodating all learners during assessment. The results revealed that FP teachers receive more support and collaboration from colleagues regarding assessment than from the Ministry of Education personnel. According to T4SA, ‘In terms of support, it is a problem I try my best with what I have I do some Googling on how I can help them but he needs more than I can give

and that is frustrating. I have to make do with what I have; there's no support from the department'. The quantitative results revealed that most of the teachers (T2SA, T4NG, T7NG) in Nigeria (30%) and in South Africa (53%) are in dire need of training and workshops tailored to capacitate them to cater to learners with special education needs through their assessment practices. T2SA further commented on the need for a counselling system for teachers in the form of emotional support.

The teachers in Nigeria (24%) further reported the need for the curriculum to be modified to acknowledge and accommodate the needs of learners with varied abilities during assessment. T10NG further commented on the textbooks provided to the learners as causing more harm than good. It is imperative to create an inclusive culture in the classroom by addressing the curriculum, which includes modifying the syllabus, textbooks, teaching and learning resources, assessment and evaluation procedures. A flexible curriculum should be adopted for instructional delivery in the classroom to cater to the diverse interests of learners. Teachers in Nigeria must be able to creatively adapt the curriculum to accommodate the varying needs of learners, including those with special needs and diverse community backgrounds. Juniar et al. (2021) argued that providing reasonable accommodation and support is vital for promoting the right to education for all learners, as outlined in Article 24 of the CRPD. The qualitative findings in Nigeria revealed that the primary support the teachers (T8NG, T9NG, T10NG) need is the support of the parents. T9NG stated that 'parents need to put in their efforts. They should not leave them and say, 'I have sent you to school. Leave me alone it is your teacher's work''. On the other hand, in South Africa, some teachers, such as T3SA and T5SA, emphasised the need for professional support by specialists as there is an acute shortage of specialists such as psychologists. T2SA emphasised the need for a practical guide on accommodating learners with SEN, which is the primary aim of this study.

Discussion

Framework for the differentiated assessment in Nigerian and South African mainstream schools (Izevbigie 2024)

The study findings initiated the development of a framework for contextualising differentiated assessment, progression and dispute a blanket implementation of standardised evaluation in Nigerian and South African mainstream schools. The framework developed used the model of modelling framework Justi and Gilbert (2002) to integrate the three theories: the Capability Approach, Community of Practice, and Multiple Intelligences. The themes below emerged from the survey and semi-structured interviews, revealing teachers' and learners' support assessment requirements.

The Figure 1 below presents the themes that emerged from the three theories to contextualise differentiated assessment requirements in the two countries;

Capability approach

Differentiated assessment policies and guidelines

The framework emphasises the need for assessment policies and frameworks to align with international and African inclusive legislations and policies of which most African nations are signatories. The capability approach redefines assessment as an inclusive and equitable tool recognising and acknowledging learners' varied abilities and skills (Robeyns 2021; Underwood, Valeo, and Wood 2012). The diversity among learners has a bearing on how they demonstrate their learning. Consequently, the standardised assessment implementation in the Foundation Phase has been found to limit learners' access to the curriculum with results that do not reveal their true abilities.

There is extensive evidence across literature which reveals that learners' academic progress and attainment can significantly improve when teachers' assessment practices align with the cultural, linguistic, and cognitive differences (Hidayat 2020; Hill et al. 2017; Munro 2012; Shepard 2001; Taylor 2017). Additionally, when assessment is differentiated, learners at risk of dropping out of school

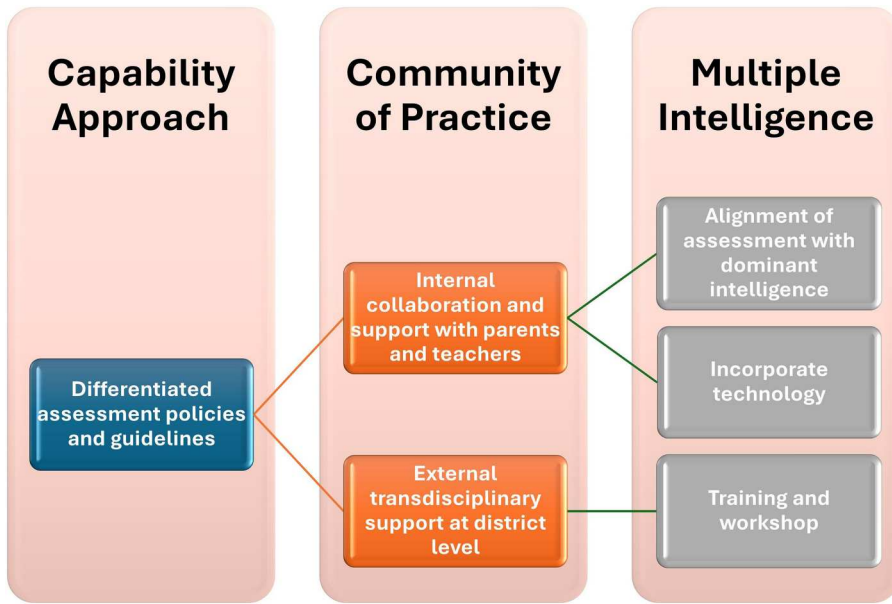


Figure 1. Framework differentiated assessment contextualisation (Izevbigie 2024).

and learners with SEN can draw from their strength to demonstrate their knowledge and skill (Bennett 2011; Hill et al. 2017). Standardised assessment on the other hand may exacerbate learners' anxiety and widen achievement gaps (DeLuca, Coombs, and LaPointe-McEwan 2019; Hattie 2014). In this regard, we argue that assessment in mainstream schools should be differentiated to accommodate all learners without giving an undue advantage to typically developing peers.

Furthermore, countries' assessment policies and guidelines must not limit teachers to implementing standardised evaluations. Governments must give teachers autonomy to differentiate assessments according to learners' capabilities, thus enhancing their progression, quality, and equal education in mainstream schools.

Community of practice

Learners with special educational needs face intrinsic and extrinsic barriers and require multidisciplinary team support. Therefore, it is key to involve a community of practice that may outsource community resources and provide psychological, physical, emotional, and sociopsychological services as needed.

Internal collaboration and support

To bridge the gap between inclusive assessment policies and their implementation, the study proposes that mainstream schoolteachers should be internally and externally supported through a community of practice. A community of practice allows teachers to collaborate, and share their expertise and experiences to implement differentiated assessment. In addition, parental support is required to promote home-school partnerships for the holistic development of learners in mainstream schools. Studies conducted in the USA and Belgium, parents, teachers, and special education teachers worked together to brainstorm ways to support learners with severe intellectual disabilities in mainstream classrooms (Hunt et al. 2004; Mortier et al. 2010, 2009). As a result, the learners showed improvement in learning, increased social interaction, and greater classroom engagement (Hunt et al. 2004; Mortier et al. 2010, 2009).

External transdisciplinary support at the district level

Results in both countries revealed that external support systems such as the SBMC in Nigeria and the DBST in South Africa could promote the implementation of differentiated assessments. These external support systems constituted professionals and experts such as psychologists, therapists, social workers, specialised counsellors and community organisations. Hence, they provide interdisciplinary and community-based support to mainstream schoolteachers and learners. When stakeholders establish effective working relationships characterised by a shared sense of purpose, mutual respect, and a commitment to collaborative negotiation, teachers can receive support to address the needs of all learners, especially those with SEN (Underwood, Valeo, and Wood 2012). In another case, Sheehy et al. (2015) utilised CoPs as a framework to portray a decade-long collaborative effort among four physical education teachers from different universities and the influence this collaboration had on their professional development and research. There is a shortage of literature on how CoPs can be employed in Nigerian and South African mainstream school contexts to promote differentiated assessment.

Multiple intelligences

Alignment of assessment with dominant intelligence

To effectively differentiate assessments in mainstream schools, teachers must be knowledgeable about the diverse intelligences present in their classrooms. This knowledge will help teachers diversify assessment practices to accommodate all learners and promote a paradigm shift from traditional or standardised assessments to more equitable assessment practices. Additionally, the Department of Education cannot expect teachers to differentiate the curriculum, in the same breath, policies, and guidelines advocate for standardised assessment, which only sets them up for failure.

Assessments often focus on verbal/linguistic and mathematical/logical intelligence, which involves left-brain functions and skills (Altan 2020). This approach forces all learners to conform to the same standards. These practices sometimes hinder learners from accessing high-quality education and reaching their full potential. Teachers must be knowledgeable about the diverse bits of intelligence in their classrooms to effectively differentiate assessments in mainstream schools. The knowledge will help them diversify their assessment practices to accommodate all learners and promote the paradigm shift from traditional or standardised assessments to more equitable practices.

Incorporate technology

Technology incorporation into differentiated assessment shows promising results, especially for learners with SEN (Kivunja 2015; Wegerif 2015). Incorporating technology can significantly increase learners' active participation and engagement with their learning activities and assessment tasks (Kivunja 2015; Simamora 2022). Technological adaptations can tailor the assessment to the needs of learners with SEN to capture their attention and improve their ability to focus on tasks (Fernández-López et al. 2013). Hence, the study emphasises that the governments of Nigeria and South Africa prioritise equipping teachers with the technological skills to target, accommodate, support, and cater to all learners' learning needs, thus increasing educational success.

Training and workshops

Through the framework, the study further proposed that teachers needed continuous training and workshops on differentiated assessment. The training would keep teachers abreast of the knowledge and skills to align assessment practices with various learner intelligences.

Conclusion

The authors developed a theory-based framework above to enhance the support of learners with special educational needs access to the curriculum and improve their educational support

opportunities and progress with their typical peers. The framework provides baseline strategies for teachers to choose compatible differentiated assessment strategies for all learners, particularly those with SEN. Additionally, it offers pathways to identify and deliver interventions accordingly. The COP, Capable approach, and Multiple intelligences theories collaboratively target learners' holistic development and teachers' support requirements for teaching and learning success.

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Due to the consent signed by the participant, the researchers can only share the data through a request form from the University of Pretoria Figshare repository.

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