

Differentiated Assessments for Learners with Neurodevelopmental Disabilities in Inclusive Elementary Schools in Tanzania

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ABSTRACT

Differentiated Instructions and modifications in curriculum and assessments are considered a prerequisite for the successful inclusion of learners with disabilities in general education. This qualitative study assessed the current provisions and the aspired changes in the curriculum, assessments, and transition plans for learners with Neurodevelopmental Diversities such as Autism in Tanzania. A total of 21 participants partaken in this study. The participants were obtained through purposive and snowball sampling methods. Data collection methods included in-depth interviews, documentary reviews and non-participant observation. Data were analyzed thematically, aided by the vivo 12. Participants were of the opinion that there is a limited provision with regard to only time (an additional twenty minutes in every hour for mathematics and ten minutes in each hour for other subjects) within the subsidiary legislation of the Examination regulations released by the National Examination Council of Tanzania (NECTA) in 2016. The provision, however, does not mention any neurodevelopmental disabilities in the categories of disabilities and the special provisions entitled to them. Lack of reasonable accommodations in the type and structure of questions, rigid modality of responses to the examination questions for learners with learning disabilities and limited flexibility in time and room arrangements have been mentioned as barriers to proper assessments for such learners. The study concludes that there is a need to embrace the evidence-based practices of responsive education, instead of the “one-size-fits-all” kind of education. This will help to improve the curriculum for all learners instead of the approach to “fix” the deficits of learners with neurodevelopmental disabilities.

Keywords: *Differentiated Assessments, Neurodevelopmental Disabilities (NDD), Autism Spectrum Disorders (ASD), Learning Disabilities and Inclusive Education.*

INTRODUCTION

Responding to the global mandate to include all learners in general education as enshrined in the Salamanca Statement (UNESCO, 1994), scholars worldwide have proposed theoretical and methodological approaches which describe the necessary curricular and instructional adjustments for learners with Special Educational Needs in inclusive settings (Strogilos et al., 2020; 2021). However, there has been a concern worldwide that learners with disabilities such as Autism Spectrum Disorders and other neurodevelopmental disabilities continue to face social oppression, systematic social exclusion and pedagogical exclusion in classrooms and in the national examinations (Strogilos et al., 2017; 2021; Strogilos & Tragoulia, 2013). For students with NDD, meaningful access to the curriculum and national examinations that effectively respond to their strengths and individual learning needs remains an elusive issue.

Curriculum and assessment modifications are essential for the social and academic progress of students with disabilities in general education classrooms. Curriculum modifications include curriculum adaptations and curriculum augmentations (Strogilos et al., 2015). A curriculum adaptation refers to the use of supplementary aids such as visual aids and technological means. Curriculum augmentation involves the additional instruction of specific strategies in order for the student to acquire skills (for example learning how to learn strategies). The aim of curriculum and assessment modifications is to accommodate the diverse needs of the students under a universally designed curriculum (Philip, 2022). The implementations of universally designed curriculum call for restructuring of the traditional lessons by providing alternate means and curricular augmentations to promote students' access, improve their participation, and increase their understanding in different areas of learning. The strategies aim at changing the way information is presented and the way students

respond without altering the curriculum content (Strogilos et al., 2021; Strogilos & Tragoulia, 2013; Tragoulia & Strogilos, 2013). Instructional strategies effective for learners with neurodevelopmental disabilities in inclusive classrooms include cooperative learning, peer-mediated instruction, student-directed learning and embedded instructions which incorporate techniques such as prompting, fading, reinforcement, and error correction procedures (Strogilos et al., 2015). Strength-based approaches are defined as approaches that acknowledge, utilize and leverage the strengths, interests and resources of learners with Neurodevelopmental Diversities (NDD) to address their needs, optimize their school experiences and improve their outcomes. Learners with NDD have strengths and interests in visual and sensory processing abilities, music, art, sports, computer and video games, cooking, comics and cartoons (J. White et al., 2023).

Formative assessments are very important as they inform on how and where to adjust the teaching and learning strategies (Strogilos et al., 2017). Specialized instructions, activity-based learning and real-life experiences work effectively for learners with NDD. The specialized instructions and assessments need to be based on the student's strengths and interests so as to help them access the information they need. For instance, visual processing has been identified as a strength for many learners with NDD (J. White et al., 2023), hence visual supports such as photographs and video-modeling are supposed to be commonly used in instruction and assessments. Because of the wide range and variety of learners with NDD needs, it is important to identify their Special Interest Areas and strengths early so as to match them with resources and activities of instructions and assessments as a way to individualize planning and implement properly so as to meet with their individual needs (Stefanidis & Strogilos, 2015; Strogilos & King-Sears, 2019; Tragoulia & Strogilos, 2013). In response the global agenda to ensure access and quality education for all, Tanzania

launched the National Strategy for Inclusive Education (NSIE 2009-2017). The document engrossed on financing and resourcing inclusive education as well as developing curricular and materials to support learning and developing inclusive assessments and evaluation tools (URT, 2017). This provision was meant to ensure participation and retention in schools for all Learners with disabilities. However, it is only around 15% of the 400,000 school-aged children with disabilities who are enrolled in primary and Secondary Schools in Tanzania (Action Aid et al., 2020). Paucity in the implementation of the differentiated instructions coupled with inflexible formative, continuous and summative assessments contribute largely to these numbers (Laiser, 2023; Strogilos et al., 2020). Limited information exists on the type of differentiated instructions offered for learners with neurodevelopmental disabilities such as Autism Spectrum Disorders, Intellectual impairments and learning disabilities in inclusive classrooms in Tanzania (Manji & Hogan, 2013). Less is known on the provisional formative and summative differentiated assessments in all levels of education (Laiser, 2023; Philip, 2022). It is from this understanding, this study assessed the current provisions and the aspired changes in the curriculum, assessments, and transition plans for learners with neurodevelopmental diversities in inclusive settings in Tanzania.

Neurodevelopmental Disabilities – The Conception

Differentiation means to proactively plan varied approaches to what learners need to learn, how they will learn it, and how they will show what they have learned in order to increase the likelihood that each student will learn as much as he or she can and as effectively as possible (Tomlinson, 2003). Differentiation is a strategy associated with responsive teaching and assessments and a means for ensuring access to the curriculum for all learners (Strogilos et al., 2017). In the other hand curricular modifications refers to the adjustments in the cognitive

demands of the work offered to learners with disabilities such as a different math problem or fewer items to complete. Neurodevelopmental Disabilities (NDD) refers to a group of conditions that are caused due to impairment in physical, learning, language, or behavior areas. These conditions begin during the developmental period and may impact the day-to-day functioning of an individual and usually last throughout a person lifetime. Developmental disabilities include; Global Developmental delay (GDD), Intellectual Disability (ID), Autism Spectrum Disorder (ASD), Communication Disorders, Learning Disorders and Physical Disabilities (Colvin et al., 2022; Ruparelia et al., 2019; Staker, 2016; Vander Wiele, 2011). Students with Neurodevelopmental disabilities such as Autism, Intellectual Impairments, Sensory and physical impairments are commonly educated through modifications in the content and the process of teaching (Laiser, 2023; Strogilos et al., 2015, 2020).

According to Janney and Snell (2013) the types of modifications can be instructional, curricular, or alternative. Most frequent modifications for learners with disabilities are; changes on how materials are presented, environmental adjustments as well as response alterations (Strogilos et al., 2020). In essence, effective inclusion occurs when educators modify the curriculum and assessments to match the needs of all students. However, limited knowledge exists about the types and quality of these modifications (Kurth et al., 2015; B. White, 2022). Many research studies have reported a lack of curriculum modifications in inclusive education systems for learners with disabilities. In a study conducted in Europe by Tomlinson (2003, 2017) participants proposed an “exams-free” pedagogy to enhance diversity in modifications. In Singapore, the education system plays a central role in maintaining quality control through high stakes examinations, such as the Primary School Leaving Examinations (PSLE) (Strogilos et al., 2021). In Maldives they use re-teaching, continuous instructional coaching, and lots of scaffolding for

individual students. While in Korea it is reported that teachers struggle to implement differentiated instructions to the point that the government decided to introduce the SMART (Self-directed, Motivated, Adaptive, Resource-enriched, and Technology-embedded intervention) (Morningstar et al, 2015). In other western countries standardized assessments have been used to evaluate student learning and not assessments in relation to students' ongoing progress. Other kinds of curriculum modifications documented includes; the reduction in the cognitive demands which means the less workload and picture-based stories than text-based stories, change in presentation of the materials, environmental adjustments as well as response alternations (Morningstar et al, 2015). According to Finnerty, Jackson and Ostergren, (2019), teachers provide access to the mainstream class content for students with severe disabilities when modifications are tangible, student-centered as well as well-blended with the class materials and instruction. There has been a consensus among researchers that effective inclusion occurs when educators modify the curriculum according to the needs and strengths of students.

Theoretical Framework

This study is informed by two theories; the first one is the Social Model of Disability and the second one is the Social Cultural Theory (SCT) which was proposed by Lev Vygotsky. The social model of disability helps to expound the perspectives of the nature of disability and the Socio-Cultural Theory shapes the propositions on the justification for the differentiated instruction, curriculum modifications, reasonable accommodations and assessments differentiations needed for learners with neurodevelopmental disabilities. Social model of disability proposes that a person's disadvantage is the combination of personal traits and social setting. It expounds that "disability" is brought about through the influence of two factors; one is a person's physical or mental traits and second is the surrounding environment which is at

least partly constructed by others (Burchardt, 2004; Thomas, 2004). According to the social model of disability, both factors must be present before the “disability” condition can surface. It insists on the social origins of impairments and the sociology of impairment (Hughes & Peterson, 1997). The social model of disability was chosen to inform this study because of its relevancy as a key tool in the analysis of cultural representation of disability. This model has become the conceptual analysis in challenging stereotypes and archetypes of disabled people by revealing how conventional structures do reinforce the oppression of disabled people (Oliver, 2013; Thomas, 2004). These qualities of social model of disability make it fit to guide this study on the assessment of the provisional differentiated instructions and assessment methods for learners with neurodevelopmental diversities in Inclusive settings in Tanzania.

The social model of disability focuses on the changes required in the society in order to help individual with disability live and thrive in our communities. The changes it advocates are in terms of Attitudes, Social support, Information, Physical structures as well as reasonable accommodation in the education policies and practices so as to remove barriers for learners who have diversity of needs in the school systems (Oliver, 2013). The second theory which informs this study is the socio-cultural theory (SCT), which was put forward by the Russian Psychologist Lev Vygotsky. Lev Vygotsky developed his theory following his interactions with children with disabilities (John-Steiner & Holdbrook, 1996). Two key elements of the socio-cultural theories are The Zone of Proximal development (ZPD) and the Scaffolding. It explains the role of the ZPD of a child and its interdependence on the role of scaffolding support in helping the child to reach their maximum potential. The zone of proximal development explains the gap between what an individual can do without the support and the potential of what they could have done with the support of a more competent peer

(History, 1896; John-Steiner and Holdbrook, 1996; To & Vygotsky, 1995). On the other hand, scaffolding is the terminology used to explain the appropriate amount of support offered to a child to be able to perform a certain task (History, 1896; John-Steiner & Holdbrook, 1996; To and Vygotsky, 1995). These two key terminologies helps to guide the narrative on the essence of differentiated instructions and the level of support and modifications required in the curriculum and assessments for learners with Neurodevelopmental disabilities in Inclusive settings.

The Current Study

The aim of the current study was to assess the current provisions with regard to differentiated assessments for learners with Neurodevelopmental disabilities in elementary schools in Tanzania. It sought to answer two research questions (i) what are the current provisions in regard to assessments and examinations for learners with Neurodevelopmental disabilities in Tanzania? (ii) What are the teachers' opinions in regard to differentiated assessments and the aspired changes for learners with Neurodevelopmental disabilities in elementary school?

Methodology

This qualitative study employed a multiple-case study research design. The study involved 35 participants (14 special and Inclusive Education teachers, 7 students with Neurodevelopmental disabilities, and 14 normal students) from the 7 Inclusive Schools within the 5 local region authorities of Tanzania (Dar es Salaam, Mbeya, Dodoma, Iringa and Tanga). Among the schools, three (3) were public-owned and four (4) were privately owned schools. Three (3) schools were chosen from rural areas of Tanzania and the four (4) were chosen from big cities to represent the two diverse socio-cultural realities. Purposive sampling was used to select both teachers and students with ASD. However, when it comes to students with ASD, purposive and convenient sampling techniques were used. Purposive sampling was first used to

select students with ASD, then convenient sampling was used to select students who were able to talk amongst students with ASD. This is due to the fact that not all autistic learners were able to speak. The normal students were conveniently selected. The purpose of involving the normal students was to make students with ASD feel comfortable during discussion. In this study, teachers were interviewed while students with ASD were mixed with other normal students for a group discussion. Also, the study employed documentary review as a method for data collection; the 2016 NECTA examinations regulations was reviewed. Data were analyzed thematically aided by the Nvivo 12 computer software. The thematic analysis of data followed the six stages proposed by Braun and Clarke (2006). These stages are (i) Familiarize oneself with the data, (ii) generate initial codes (iii) search for themes (iv) define themes (v) name themes and (vi) write the report.

Findings and Discussion

Based on the main research objective for this study, which is to assess the current provisions with regard to differentiated assessments for learners with Neurodevelopmental Disorders in Inclusive elementary schools. Findings were obtained from the two research questions and participants' responses were captured in terms of themes, which were developed from the codes. The participants' responses, observation checklist and narratives together with the documentary review findings have all been captured under the six themes explained below, which are; - status of inclusion for learners with NDD, activities-based learning, strengths-based approach to learning and assessments, Differentiated Curricular, Differentiated Formative and Summative Assessments and Formal and Planned Exits/Transitions.

Status of Inclusion for Learners with Neurodevelopmental Disorders (NDD)

As we delve into the findings it is worth noting that participants and school administrators claimed to practice inclusive education. However, the researchers' observation suggests that no public-owned school in the selected regions implemented inclusion of learners with neurodevelopmental disabilities in general classrooms. There has been observed inclusion of learners with physical disabilities, visual impairments, and hearing impairments. All learners with neurodevelopmental disabilities such as autism spectrum disorders, intellectual impairments and learning disabilities were put together in a separate classroom (special unit) and were not included in the mainstream classrooms.

Another thing worth noting is that; majority of the teachers were not aware of any of the technical terminologies used in the Inclusive Education approaches. Such terminologies include curriculum adaptations, reasonable accommodations, differentiated instructions etc., and those used in the Neurodevelopmental disabilities field such as aggressive behaviors, sensory perceptions disorders, prompts, reinforcements, dyslexia, and dysgraphia. This is contributed by a lack of training in these areas. However, their responses after detailed elaborations carried out by the researcher, they were able to mention some modification and adaptations made by special and inclusive education teachers in the classroom. It is worth noting that these modifications, adaptations, and differentiations that are teacher-initiated were mainly reported in the privately owned schools. There is a significant gap in the implementation of inclusive education that has been observed in the public-owned schools; however, it is beyond the scope of this study. The findings here are presented thematically and not reported school by school; whenever the issue arises it shall be

explained on how it has appeared in public-owned and privately-owned schools respectively.

Activities-based Learning

The participants (teachers and students) provided several ways in which the curriculum and instruction is being differentiated in schools. Some of the differentiations mentioned were not being implemented in the public-owned schools at the moment. There was a commendable level of seriousness in implementing the differentiations in the privately-owned schools, with some few hindrances due to the same learning objectives for all learners and same assessment methods and final national examinations for all students. Majority of the participants mentioned activities-based learning as the instructional differentiation carried out by teachers and approved by the school administrators as a way to alter how the content is taught, how learning is demonstrated and how students can respond (Strogilos et al., 2017) They consider this approach to be effective because it takes into consideration the students' interests and their learning styles (Strogilos et al., 2021; J. White et al., 2023). This can be ascertained through their responses as follows:

As a school, we have decided to modify the curriculum by teaching through practical and make children active participators in the learning process. We avoid lecture methods and too much writing on papers (Teacher A).

Because we can play sports such as football, basketball and we can work on the computer, we can read and write and we can play video games (Student X)

We have different classes for different vocational skills such as cooking, mechanics, decoration, tailoring, gardening, animal keeping, office works, library and child care, this is special for the older children we do

teach them and prepare them to be assistant teachers by giving them opportunities to look after the younger children at school (Teacher B)

It is argued here that the steps taken by teachers and schools to accommodate the needs of learners with NDD in inclusive settings through the activities-based learning are in line with the required standards of Universal Design for learning, and are also in line with the strengths-based approaches (Opini & Onditi, 2016; J. White et al., 2023). However, the barriers still exist as the summative assessment methods and the national examinations methods have not been adjusted to reflect the practice in schools and thus these learners end up not qualified to sit for the National Examinations. Hence, their efforts and skills cannot be formally assessed and given the due recognition.

Strengths-based Approach to Learning and Assessments

The dominant thought across schools and participants has been that learners with neurodevelopmental diversities are mainly visual-audio learners and they do avoid scripts and lecture methods. This finding is consistent with the literatures on the different learning styles and the fact that Differentiated Instruction is the process in which modified activities and learning outcomes are an integral part of the curriculum (Hugo & Hedegaard, 2020; Strogilos et al., 2023; Tragoulia & Strogilos, 2013). Participants have mentioned the use of technological aids such as computer, audio books, and key boards with enlarged fonts and reduced hand-writing activities and replacing it with typed works to differentiate the instructions and the process of teaching and learning. Other methods used are the altering of presentation, whereby picture-based stories are used instead of the letter-based stories. This was reported during interviews:

So, the main strategy that we use is by using books which have larger fonts which enable the children to read with ease, books with many pictures, teaching little things (small contents) but using an extended

period of time until they master. For example, if we are teaching about fruits, we make sure that we teach them in even ten different ways until the child has mastered the content that we want them to master (Teacher C)

For me to do well in school, I think we need more assistive devices, I need to be educated, and all my educational needs should be provided, for example audio books and Assistive devices for writing (Student Y).

For example, sitting arrangement, those with diverse learning needs are supposed to sit at the front so that they can hear and see properly and it also increases their understanding (Teacher A).

Also, the use of videos and audio visuals in some of their subjects help to increase their understanding of the subject matter (Teacher D).

Arguably, this alteration should also be considered in the national examinations by doing assessments using picture-based questions instead of the letter-based questions. This finding is consistent with literatures which exposes that when curriculum modifications are used, students with disabilities increase their engagement in academic related responses and decrease their problematic behaviors (King-Sears et al., 2021). It is worth noting that the adaptations made to the curriculum are considered an essential inclusive strategy. They should be also reflected in the continuous assessments, summative assessments and national examinations for effective inclusion of students with neurodevelopmental disabilities in the mainstream schools (Philip, 2022)

Differentiated Curricular

The participants suggested that differences of learners in readiness levels, interests and learning profiles need to be taken into consideration when planning instruction and assessments. In their arguments, they noted that differentiated instruction provides a framework of learning and teaching to meet the diverse needs of all

students in a classroom. It appears to them that the current curriculum is the traditional one whereby all children are supposed to receive the same instruction and undergo through the same assessments most of the time. They insist on the need to have a differentiated content of the assessment and the curriculum by altering the complexity of the content as well as altering the quantity according to the students with disabilities grade, age, type and severity of disability of an individual child. This was mentioned during the interviews:

Yes, we have some few modifications even though they are not documented officially. Learners with autism and other related disabilities are supposed to learn a few things in the curriculum content so that they can be able to grasp them and master them. Normally, they were supposed to just learn in the three levels and graduate but recently they say we should put them in grade four after they have mastered the three levels, but upon joining the grade four they do meet with huge and heavy contents that are not fit for them and they cannot cope with others (Teacher E).

So, in general the curriculum has not addressed the specific issues that need attention in children with autism and other neurodevelopmental disorders (Teacher B).

Sometimes you may plan to teach them inside the classroom but the child doesn't want to stay inside the class so as a teacher you have to be flexible and follow the child. For example, if you planned to teach number, you may go outside and play football while counting, or you may teach them counting through skipping the rope (Teacher G).

The differentiated curricular suggested by the participants can include the reduction in the difficulty level of the content or use of “less content” to match with the perceived low ability level of students with special learning needs (Strogilos et al., 2021). It can also be accompanied by the one-on-one instructional support such as the adult support, peer support, extended time, rewards, assistive technology,

extra resources, pictures as well as environmental adjustments (Strogilos et al., 2020; Symes & Humphrey, 2011)

Differentiated Formative and Summative Assessments

In this study, the majority of participants, especially teachers, voiced their aspirations on the changes they would like to see on the type of questions, assessment process as well as the methods that learners use to respond to the question in the examinations. In their opinion, students with neurodevelopmental disabilities such as Autism Spectrum Disorders, Intellectual impairments, sensory and learning disabilities have been left out in the formal assessment systems and are not even considered in the national examinations. This is due to the limited differentiations in the content of the examinations as well as the alterations in the process and environments of examinations. This argument is backed up by the fact that neurodevelopmental disabilities is not mentioned anywhere in the NECTA examinations guidelines document (NECTA, 2016). The guideline does not acknowledge the needs of learners with Autism, Intellectual Impairments and Learning disabilities, and hence mention no any differentiated support for them. The documentary search indicated a preliminary provision within the subsidiary legislation where by learners with disabilities have been provided with the additional twenty minutes for every hour in mathematics and additional ten minutes for every hour in other subjects (NECTA, 2016). This provision has been enshrined within the general provisions under the subsection (29) of the Special treatment for candidates with special needs, and it state that;

⁽¹⁾A private candidate with special needs or Head of school that has candidates with special needs may apply to the Executive Secretary for provisions of special services... ⁽⁴⁾A candidate with a disability which slows down his writing speed in the examinations shall be offered with additional of twenty minutes

in every hour for mathematics and ten minutes in each hour for other subjects (pg. 31-32).

According to the participants, this provision seems to be insufficient to address the diversities of needs for learners with neurodevelopmental disabilities. First of all, it impliedly suggests that learners with special needs or their heads of schools should apply for the differentiated assessments, instead of the authority to provide beforehand the modified assessments based on the diversity of the learners in schools. In their opinion the subsidiary legislation should stipulate the modifications and adaptations in the type of questions, modality of examination administration as well as the environmental adjustments that are deemed necessary. As it was commented during the interview:

There are no different evaluation and testing modifications for the needs of these learners. As I said earlier; these things are not formally documented, hence not clear on the implementation. From level one to level three they are in special classes and later join to inclusive classes from grade four so they struggle to cope with the grade four studies in general (Teacher E).

For example, we have a child called XYZ here, who is verbal, but he has a great ability in academics. If you look at him, you may not realize if he possesses such abilities and he also has physical disabilities. However, if you rank him according to the Tanzanian curriculum, he may seem to be behind others, and also he cannot learn hand works because he has some impairment in his hands and legs. A child like XYZ was supposed to have Oral examinations and not written examinations because of his limitations (Teacher G).

Most of the children with autism are good in Oral examinations and practical examinations (Student Z)

The first thing I would have advice is for the examinations to be more practical than written. Because if we make all the examinations to be written we fail to assess those with autism better (Teacher F)

There should be a way to assess children orally, using more picture than text questions or writing by using computers and other assistive devices and practical on the daily life skills. For example, if the examination required a child to mention the things that we do use in the dinning/kitchen, the ones with autism will be told to point to the cup, or a knife or a plate from the mixture of objects (Teacher C).

This finding is consistent with the literatures which expounds that low quality of inclusion of learners with neurodevelopmental disabilities in summative assessments and national examinations is attributed by the traditional beliefs that the success of inclusion is largely dependent on the disabled learners' individual characteristics (Strogilos et al., 2023; Tragoulia & Strogilos, 2013). When the education system fails to include learners with NDD in the assessments and national examinations, all the blame goes to the individual learners with NDD and their ability to assimilate into a largely undifferentiated examinations environment. Limited modification in the national examinations can be attributed to educators' belief that the offered modifications should be based on the students' ability to adjust themselves to the traditional examinations environment (Majoko, 2017; Mapunda et al., 2017; Possi & Milinga, 2017; Segall & Campbell, 2012; Sifuna, 2007).

Formal and Planned Exits/Transitions

Unclear transitions from one level to another as well as the informal exits in primary schools without getting proper recognitions and awards from the National Examination Council of Tanzania based on their skills and competence levels is another concern that was presented by participants. Participants revealed that there is no documented procedure and the differentiated curriculum to take

through the learners with neurodevelopmental disabilities from the special units to inclusive classrooms. A learner is expected to move from the special unit preparatory classes to grade four and adapt to the undifferentiated curriculum, instructions and the same amount of content and the difficulty level, just like their typically developing peers. This concern suggests for the formally documented differentiated content of the curriculum for learners with intellectual disabilities, autism and learning disabilities from pre-primary to upper primary levels to make their inclusion pathway clear and their transitions and exit levels well defined. In light to the participants' responses below, the differentiated curriculum content will inform the type of assessments and national examinations accommodations required for this kind of learners so as to widen their opportunities for further education and employments in the future. Some participants commented:

In essence, there is no clear or smooth transition from special classes to inclusive classes. For example, in numbers; those with special needs do join upper grades while they have not learnt all the numbers that their peers have already mastered (Teacher D).

We do separate them in their own classes until they have mastered the pre-reading skill is when we bring them to join the inclusive classes. We prepare them in their own classes for pre-primary education so that we can have enough time to build their capabilities and once they join inclusive classes, they will be able to move well with others (Teacher A).

From level three, a child can be taken to join grade four because they believe once a child has mastered all the three levels they are competent enough to join grade four. However, in real sense, they do not have the same competency level as their typically developing peers because in grade three children do learn to count up to ten thousand, but for those with special needs such as autism and intellectual impairments, they only learn up to one hundred. Thus, being in the same grade now

(grade four) the ones with special needs are now made to carry a big load. I think the ministry is still in the process to make it better
(Teacher G)

According to Kurth and Keegan (2014), educators are not supposed to focus on what skills learners lack but rather on what support should be in place in order for learners to be successful. The Kurth and Keegan (2014) methodological approach in evaluating the educator-made modifications suggests that in the efforts to ensure the competence of learners with NDD during transitions and exits assessments, the curricular content should not be different. However, it should be differentiated to the degree which does not exclude the learners with disabilities from the common competence activities of their peers. This will need a balance between the differentiated activities (similar to the common activity) and a different activity (more special than necessary)(Strogilos et al., 2021).

Different learning needs of learners with NDD require a variety in the development of modifications. For example, learners with mild learning difficulties might need more “instructional” modifications, whereas learners with severe learning difficult require more “curricular” modifications. Instructional modifications can include the one-on-one support provided to a student by an adult, the peer support provided by a classmate, and the adaptations on the sitting space within the classroom. Others can be provision and use of supportive technology, provision of extra time during class activities and examinations as well as the support when someone else is writing the examination for the student with neurodevelopmental disability.

Conclusion and Recommendations

Generally, teachers’ opinions suggest for curriculum modifications and adaptations in instructions and assessments so as to reflect the intentions of the education system in embracing the best-practices of

responsive education and not “one size fits all” kind of education. Based on their voices one can depict that differentiated instruction and assessments practices helps to improve the curriculum for all learners, instead of the approach to “fix” the deficits of learners with neurodevelopmental disabilities. They have insisted that activities-based learning creates early work-related experiences at school by capitalizing on students’ special interest areas which contributes to their long-term goals. It has been stressed that deploying the digital and technology in instruction and assessment is critical for successful inclusion of learners with NDD.

The use of Visual supports and assistive devices such as video-modeling, dictation software programmes to compensate for deficits in writing. This is to say, our education system needs to recognize powerful effects of students’ diversities, interests and strengths rather than viewing them as deficits to be changed. There is a need to balance between the traditional practices and a way of operating from a deficit-based model, which is dedicated to “fixing” the students, to practices that recognize and leverage their diversities, strengths and interests and empower them. This area has not been studied enough in Tanzania. Hence, more studies are recommended in this regard. Due to the small sample covered under this study, the findings cannot be generalized. However, a further quantitative survey is recommended in this area so as to generate findings that include a larger sample. This study also recommends for serious deliberations to have formally differentiated curriculum, assessments and national examinations adaptations and modification.

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