

Assessment of Reasonable Accommodations and Adaptations for Learners with Autism Spectrum Disorders in Inclusive Elementary Schools of Tanzania

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Abstract

This study investigated the reasonable accommodations and adaptations for learners with Autism Spectrum Disorders in inclusive education settings. The study employed multiple case study design, with unstructured interviews, non-participant observation and focus group discussions as data gathering tools. A total of 24 respondents participated in the study. Data were thematically analysed method with the aid of Nvivo12 computer software. The study revealed that learners with autism spectrum disorders do not have the right support structures and appropriate reasonable accommodations and adaptations. The findings also earmarked the use of different materials and methods for learners with Autism spectrum disorders. Insufficient sensory stimulation and the shortage of trained teachers compromised effective learning for autism disorder individuals. The study concludes that the practice of inclusive education for learners with autism spectrum disorders in Tanzanian elementary schools has a long way to go. The need to have clear guidelines and directives on the appropriate implementation of the National Strategy for Inclusive Education (NSIE), particularly for learners with ASD in elementary schools, is highly recommended.

Keywords: *Autism Spectrum Disorders (ASD), Inclusive Education, Reasonable accommodations, Adaptations, Universal Design of Learning (UDL).*

INTRODUCTION

According to the medical descriptions, Autism Spectrum Disorder is a Developmental disability (Spencer & Simpson, 2009) or a “neurodevelopmental disorder” which affects the central nervous system and how an individual and stores information in the brain, Its severity

ranges from mild to severe (American Psychiatric Association, 2012). Inclusion of learners with autism spectrum disorders in elementary schools is getting attention. Learners with autism think differently from the neurotypical and require specific intervention. This affects their communication, their social interaction, and their behaviours (Briskman et al., 2020).

Scholars argue that autism is not always visible (D'Elia et al., 2014). It can lead to those in the spectrum excluded from access to the curriculum (Strogilos et al., 2017). In other words, learners with autism easily get labeled as children with behavioral problems (Manji & Hogan, 2013). This prompts these learners to drop out of school or never be enrolled in schools (Manji, 2018). Statistics show that around 400,000 school aged children in Tanzania live with disability and only about 60,404 are enrolled in schools (Action Aid et al., 2020). This suggests that only 15% of these children are in schools. To be inclusive, teachers will need to use effective teaching strategies that meet different needs of neurodivergent and neurotypical.

Accommodation and adaptation help to properly address the needs of these learners (Kofidou et al., 2023; Mantzikos et al., 2017; Mantzikos & Lappa, 2023). Inclusion of learners with autism is not attempting to change them, but adapt the curriculum, the classroom, the buildings, and teaching styles to accommodate them (J. Kurth & Mastergeorge, 2010). The proponents of inclusion argue that schools should change the curriculum, building designs, extra-curricular activities and adapt measure to accommodate learners with autism. This, however, depends on the availability of resources and expertise of teachers (Mtemi Philip, 2022). The Tanzania National Strategy for Inclusive Education (The United Republic of Tanzania, 2017) has defined inclusive education as an approach which transforms the education system, including its structure, policies, practices and human resources, to accommodate all learners in mainstream education by addressing and responding to learners' diverse needs. It involves adaptation and modification of curriculum content, teaching and learning materials, pedagogy and environment to ensure access and participation of all learners. This study sought address one research question: What reasonable accommodations and modifications are in place for learners with autism spectrum disorders in the inclusive schools?

METHODOLOGY

This study employed interpretivist research paradigm. This paradigm believes that human behaviour is multi-layered (subjective) and it cannot be determined by pre-defined probabilistic models (Creswell, 2007; Mackenzie & Knipe, 1983; Ritchie & Lewis, 2003). The appropriate schooling for learners with autism is the subject that requires an investigation to be done in the naturalistic setting (real-life setting). Hence the study employed pure qualitative research approach because it allows assessment of interactions and experiences in the natural settings (Creswell, 2007). The parallel multiple-case study design was employed in order to capture the holistic overview about the phenomena under investigation. Data were gathered through non-participant observation, unstructured interviews, focus group discussions, and documentary reviews.

The participants were purposively selected from seven inclusive elementary schools in five regions of Tanzania (i.e., Dar es salaam, Tanga, Mbeya, Dodoma and Iringa). Snow-ball sampling was used to obtain respondents with specific characteristics of interest to be included in the sample. Participants for interviews were special/inclusive educational teachers, parents/caregivers, and children with autism, as well as those who did not have autism. The total of 24 participants were interviewed including 14 teachers, five parents and five students.

Data were thematically analysed with the aid of Nvivo 12 computer software. Themes were developed deductively from the established characteristics areas of Autism Spectrum Disorders that interfere with the effective schooling. The sub-themes have been obtained inductively from the participants' interview scripts.

FINDINGS AND DISCUSSION

Inclusion gap towards accommodating children with autism

It was observed that the three public own schools do not reflect the standards and philosophy of inclusion, especially for learners with Neurodevelopmental Diversities (i.e., autism, intellectual impairments, communication disorders, and learning disabilities). These learners spent most of their schooling hours in a self-contained classroom or special-unit class. The inclusion criteria depended on the severance of the disability.

However, r learners with visual, physical and hearing impairments were fully enrolled in the inclusive classrooms (Strogilos et al, 2017).

The study found that the four privately owned schools had evidence-based reasonable accommodation and modification required for the smooth inclusion of leaners with autism. Only one out of three public owned schools had these. The findings are presented in the six themes developed according to the 3 characteristic areas that learners with autism spectrum disorders do struggle and hinder their full participation in the curriculum. The three areas are (i) language and communication (ii) social interactions and (iii) repetitive and restrictive behaviours. These are illustrated below.

Language and Communication

The respondents mentioned that the use of Pictures Exchange Communication System (PECS) or visual and real-object-images helped to communicate with autism learners. This method was evident across the four privately owned schools. In relation to this, the participants said:

So if you want to give them instructions you should be brief, don't narrate stories for too long because they get bored easily with auditory information, and they may end up ignoring or leaving you and stop listening (Teacher, JB)

You have to be brief and precise when you give them instructions, or you may accompany your instructions with visuals because some of them are completely non-verbal and they do not have alternative means of communication (Teacher ZX)

However, PECS and visuals were not regularly used in some schools to communicate with learners who are non-verbal and verbal. public schools regarded PECS and visuals as important in helping non-verbal learners to communicate with others. One of the students commented:

Yes, they should improve the classrooms and put images of real objects inside the classrooms so that the non-verbal learners can use the pictures to communicate (Student RY)

The use of pictures exchange communication system or visuals has been mentioned by many literatures to be the most effective methods to communicate and train individuals with autism spectrum disorders (Atun-Einy et al., 2013; Kurth et al., 2015; Lindsay et al., 2013, 2014; Vander

Wiele, 2011; Waddington & Reed, 2017). Other ways that schools communicated with autism learners was non-verbal cues, the use of real objects and the use of sign language. However, some participants were concerned that the use of sign language for learners with autism was challenging because memorization of the finger alphabets require a high level of coordination, executive functioning, and memory something that majority of these learners are not good at. Whether sign language can be used as an alternative language or not remains questionable for further research and investigations (D'Elia et al., 2014)

Social Interactions

Deficit in social interaction and difficult to abide by the social rules are among the characteristics of autism spectrum disorders condition. The respondents mentioned that people around the school need to show unconditional love and acceptance for these individuals with autism as the mechanism to help them thrive socially and initiate interactions with others. One participant stated:

What we do is; from the beginning of the day as a teacher I am supposed to be calm so that the child can invite me in their world. Because they cannot communicate with words, these children have their own worlds. I have to be intentional to be friend to them so that I can know what they like and what they do not (Teacher, JW)

Another teacher illustrated:

What I have noticed is that children with autism need a lot of love for them to show appropriate behavior and if these children get harsh treatment they do retaliate and become very aggressive (Teacher, OG)

Respondents also indicated that intentional efforts to create autism awareness around the school are a viable means to help them in the area of social interactions. This strategy was reported to be more effective because it helps the entire school to manage autism learners' social expectations. One of the participants said this:

We do start by mobilizing other "typically developing children" and encourage them to befriend and welcome their fellows who have autism. Starting with the typically developing children is easy because they can understand you easy and they can easily initiate interactions. (Teacher, MN).

Another participant also commented:

The most important thing is community awareness. Every person should be able to know children with autism and their symptoms. They should understand that children with autism have deficits in social interaction and communication, and that some of them are non-verbal. Sometimes these children do not have social boundaries (Teacher, CJ).

In addition to the unconditional love and acceptance, the respondents recommended the use of the Child to Child Approach in helping learners with autism to enhance their social interactions and developing basic functioning skills. The use of other “typically developing children” has been documented literature and it is termed “Modeling” or “Role Play”(Humphrey & Symes, 2010; John-Steiner & Holdbrook, 1996; Mwakalinga, 2012). This approach is helpful because learners with autism are known to be good at imitating what other children do. This means that when these children watch a competent peer performs a certain task such as greeting elders or seeking help, they learn that important life skills. One of the participants remarked:

Another method that we use is the ‘Child to Child approach.’ As a I have a lot of things in my plate, so I can order another child within my class to support a child with disability by just saying; “Anna, can you please hold Mary’s hand and direct her to the toilet? (Teacher, CJ)

In their interviews, students believed that this approach make learners with autism feel good and develop a sense of dignity and fulfillment to help their colleagues. One participant had this to say:

I feel good because sometime students with autism can have issues that they do not understand and that can be an opportunity for me to help them understand. I do not stigmatize them (Student, KM)

This findings resonates with the literature that affirms the differentiated practices as synonymous to inclusion (Strogilos et al., 2017). This practice regards inclusion as a way of increasing participation for all children and adults and a means to support schools to become more responsive to the diversity of children’s backgrounds, interests, experience, knowledge, and skills.

Repetitive behaviours

The presence of restrictive and repetitive stereotyped behavior is another significant symptom of autism spectrum disorder that hinders their

effective participation in school activities. This raises a major concern for teachers and other staff working with these learners. Some repetitive behaviours are in form of sounds and flipping of hands (Anglim et al., 2018; Humphrey & Symes, 2013; Mwakalinga, 2012).

One participant went on to illustrate:

Also, these children with autism are not able to explain when they are sick. So, we do study their behavior daily to notice if there is any change in behavior and support them accordingly. When we see them to be more reserved than normal or too quiet than their usual self, we do assess to see if everything is fine (Teacher, OG)

Schools use different strategies to manage and modify behaviours (Anglim et al., 2018; Mwakalinga, 2012; Myers et al., 2007). Behaviour Replacement Methods is commonly used where by a child with ASD is provided with alternative activity. The alternative behaviour is implemented after a period of data collection on the behavior occurrences in order to determine their frequency, the time that it normally occurs, the antecedent that happen prior to the behaviour as well as and consequence of the behaviour.

The participants were of the opinion that the implementation of the strict school structures and routines also help to deal with such behaviours Literature points out that learners who are in the spectrum thrive in routines and prefer to have things done in the same way every day (Cermak et al., 2010; Lindsay et al., 2013; Vander Wiele, 2011). Any minor change in the routine may cause them to act out in a way that may be interpreted as a behaviour issue. One of the participants offered this example:

When it is time for food they can just stand and walk out of the classroom even if the teacher is still teaching.... So, whenever we anticipate changes in the routines, timetables, and food we take time to explain it to them before they experience that change (Teacher, UV)

Some learners with autism were reported to have self-injurious behaviours and sometimes act out in a manner that may cause harm to other students. The participants declared that they used Calm Down Rooms and the Self-Enclosed settings as a means to isolate them for a while so that they can get time to calm down. This was done before these

children went back to their respective inclusive classrooms. This findings resonates with the scholarly writings on sensory integration as one of the therapies used in autism interventions (Bailey & Baker, 2020; Cermak et al., 2010). Setting high expectations and close monitoring help learners with autism manage their repetitive behaviors.

Multi-sensory teaching methods and materials

The participants identified digital learning and audio-visual learning materials such as computer, videos, audio books and talking tablets as the most effective for learners with autism spectrum disorders. The importance of these devices in the teaching and learning was affirmed by one teacher. She remarked, “The use of videos and audio visuals in some of their subjects help to increase their understanding of the subject matter” (Teacher, QX). One of the students supported this: *“We can work on the computer; we can read and write and we can play video games.”* (Student FR).

Literature (Edward, 2015; Mapunda et al., 2017) argues that learners with autism spectrum disorders struggle to grasp the abstract knowledge, and find it hard to understand concepts which are not visible. To help them understand the subject taught in school and to combat these challenges the use of real objects is crucial.

Individualized Attention and Support

The findings indicate that, one of the important reasonable accommodations that is highly needed for learners with autism spectrum disorders is the individualized attention and support. This is due to the complexity of the autism spectrum disorder condition and the diversity within the population of learners who are within the condition. The participants suggested one and one support approach so as to offer the tailor-made solution for the developmental gaps, enhance the individual strengths, as well as use the learning strategy that works according to an individual child as one participant said: “We ensure that these children are provided with individualized attention and support in order to address the learning needs and developmental gaps of that particular child” (Teacher, AY). The IEP is the tool that is used to document the areas of strengths so as to prepare learning activities that are needed for the child to progress in that particular area (Emam & Farrell, 2009; Groom & Rose, 2005; Kurth & Mastergeorge, 2010). The IEP covers all the developmental

areas such as gross and fine motor skills, cognitive, speech and language, as well as daily life skills and academics. One teacher acknowledged:

There are no changes in the curriculum content, but the only modification is the use of Individualized Education Plan...And the main tool that helps us in teaching learners with autism is their IEPs. This is because in our classrooms we have children who have diverse learning abilities. (Teacher, ZQ)

Setting high performance targets for learners with autism in all the developmental areas is correlate to attainment of the expected educational and behaviour outcomes (Nigmatullina et al., 2021). Regular home visits to assess the situation of the child, clarify some issues to parents at their homes, and reinforce some of the behaviour interventions in place as a critical component.

Parental Training and Involvement

Findings of this study have indicated that parental involvement is the critical component in the attainment of the expected progress in academics, behaviour and basic life skills for learners with autism spectrum disorders. Respondents have also mentioned that early acceptance of the child's diagnosis contributes to the early intervention and early improvement of the ASD symptoms. Special education teachers mentioned that some therapies and learning activities need to be done by parents at home so as to ensure consistency and continuity of the intervention. This findings align with the literature (D'Elia et al., 2014; Emam & Farrell, 2009; Lindsay et al., 2013; Roberts & Simpson, 2016) which illustrates the rationale of parents involvement in teaching and learning of these learners.

The participants expressed that parental acceptance of their children's condition is the most important factor for the effective inclusion of learners with autism. Other participants, however, acknowledged that continuous parental training helps them to accept the condition, and become advocates of their child condition to other family members and neighbours. One participant made this comment:

Parents who observe to do everything as we have agreed with them do help their children acquire milestones in a very short time, and those who do not take heed; they do make their children take longer in acquiring the expected milestones. I believe that once parents accept and the community is aware and the government takes full responsibility to support, then these children will be able to access their rights without any problem. (Teacher AJ)

One parent of the child with autism testified:

Nowhere, I do try to resolve it myself and do my best to advocate about the condition of my child to my neighbours and the people around me so that they can be more understanding in case he does something that they never expected
(Parent ZZK)

Parental involvement in education has been reported to have positive contribution to the schooling of all kinds of learners, not only those with disabilities (Moran, 2018; Roberts & Simpson, 2016). A study by Mantzikos et al. (2017) also indicated a positive experience of parents whose children are attending inclusive classrooms in Greece, through parent-teacher collaborations, as well as continuous feedback and training.

CONCLUSION AND RECOMMENDATIONS

This study aimed at investigating the reasonable accommodations and modifications that are implemented by schools in order to effectively include learners with autism spectrum disorders. It became apparent that individuals with autism spectrum disorders have characteristic symptoms that limit their abilities to communicate verbally or non-verbally. They also struggle with social interaction and have uncommon obsession and interest to certain stereotypic behaviours which might hinder their effective participation in educational programs (American Psychiatric Association, 2012; Atun-Einy et al., 2013; Bailey & Baker, 2020; Symes & Humphrey, 2011). Because of this, utilization of the Universal Design of Learning (UDL) by incorporating reasonable accommodations and modifications in the curriculum, environment and processes is inevitable (Majoko, 2017; Nigmatullina et al., 2021; Opini & Onditi, 2016; Segall & Campbell, 2012; Sifuna, 2007). Findings of this study have revealed a significant gap in practice in public inclusive schools. A notable resources and handling of these learners has been observed in the privately-owned institutions. Intentional efforts to bridge the gap between policy and implementation is needed.

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