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Practices That Support the Inclusion of Children With Autism Spectrum Disorder in Mainstream Early Childhood Education in Zimbabwe

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Abstract

The international and national mandate to serve learners with special needs in regular education warrants examination of support practices for including learners with autism in Zimbabwe. Entrenched within the inclusive pedagogical philosophy, the current qualitative study executed individual interviews with 18 teachers, document analysis, and nonparticipant observations in the Midlands educational province of Zimbabwe to explore support practices for including learners with autism in regular Early Childhood Development (ECD) classes. The study revealed that support practices for including learners with autism in regular ECD classes included entry competencies informed pedagogy, reinforcement, academic adaptations, socialization, consultation, and strategic management of structured routines and compulsions. The institutionalization of comprehensive teacher education for inclusion and collaborative culture could optimize support practices for including learners with autism in regular ECD classes.

Keywords

autism, Early Childhood Development, inclusion, learners with special needs, regular classes, Zimbabwe

Introduction

Autism is currently the exceedingly prevalent neurological disorder among children the world over (Chandler-Olcott & Kluth, 2009). It is diagnosed in approximately 1:68 children in the United States (Centers for Disease Control and Prevention [CDC], 2014). This is higher than 1:88, which was reported in 2012 (CDC, 2014). Whereas Zimbabwe has about 600,000 learners with special needs (Chakuchichi, 2013), there is a lack of national statistics on the number and percentage of learners with autism. The exceedingly common categories of disability among Zimbabwean learners include intellectual and sensory impairments, including autism (Chireshe, 2011; Majoko, 2013; Mandipa & Manyatera, 2014). In alignment with several other countries, including Botswana (Brewin, Renwick, & Fudge, 2008; Chhabra, Srivastava, & Srivastava, 2010), South Africa (Naicker, 2009), and Tanzania (Kisanji & Saanane, 2009), Zimbabwe decrees the education of learners with special needs including autism in regular classes (Chireshe, 2011; Majoko, 2016; Mugweni & Dakwa, 2013). Pupils with unique needs in Zimbabwe are known as "learners with disabilities" (Majoko, 2013). These learners are entitled to inclusion once the Department of Schools Psychological Services and Special Needs Education of Zimbabwe has formally identified them (Musengi & Chireshe, 2012; Mushoriwa & Gasva, 2008), enhancing access, equity, and equality in education.

Despite the worldwide pursuit of inclusion, a universally accepted definition of it is illusive thus far due to conceptual difficulties in defining it including what counts as evidence of its model practice (Berry, 2010; Flecha & Soler, 2013; Florian & Black-Hawkins, 2011). Inclusion can, however, be viewed as a philosophy which entails equal valuation of every learner as belonging to the culture of the regular school class (Ballard, 2012; Berry, 2010; Florian & Linklater, 2010) constituting presence, participation, acceptance, and achievement (Black-Hawkins & Florian, 2012; Forlin & Chambers, 2011; Humphrey, 2008; Slee, 2011). In Zimbabwe, inclusion entails diagnosis and reduction of barriers to learners' access to regular settings, including educational institutions, communities, and families, and maximizing support practices to enhance achievement (Chireshe, 2013; Majoko, 2013). Its

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successful and effective practice embodies participation of all learners and their families in the activities of the regular school communities while meeting their unique needs, as well as contributing to the advancement of these institutions (Chakuchichi, 2013; Deluca, Tramonta, & Kett, 2013; Mushoriwa & Gasva, 2008).

Since the adoption of inclusion in 1994, educational provinces across Zimbabwe report notable increase in enrollment of learners with special needs, including autism (Chireshe, 2011; Mpofu & Shumba, 2012). Research, both in Zimbabwe and elsewhere, reveals that inclusion benefits both learners with and without autism. Inclusive classes afford conducive settings for growth and education of learners with autism alongside their typically developing peers (Chandler-Olcott & Kluth, 2009; de Boer & Simpson, 2009; Vakil, Welton, O'Connor, & Kline, 2009). In addition, they can be stimulants for learning, development, and feelings of acceptance for these learners (Emam & Farrell, 2009; Leblanc, Richardson, & Burns, 2009; Lindsay, Proulx, Scott, & Thompson, 2014). Thus, inclusive pedagogical settings are premised on equalization of opportunities in education. Fully included learners with autism have more social support, social networks, and better educational targets in comparison with their peers in special classes (Leach & Duffy, 2009; Lindsay et al., 2014). Learners with autism who are included in regular classes develop a realization and accommodation of individual differences (de Boer & Simpson, 2009; Symes & Humphrey, 2010) as they are exposed to peers with a diversity of temperaments and talents (Falkmer, Granlund, Nilholm, & Falkmer, 2012; Leach & Duffy, 2009; Lindsay et al., 2014). Inclusion in regular school classes also increases educational expectations for both learners with and without autism (Emam & Farrell, 2009; Finke & McNaughton, 2009; Horrocks, White, & Roberts, 2008).

Limited systemic change in pedagogical institutions has culminated in little progress toward inclusion for learners with autism in the entire regular education curricula and contexts in several countries, including Zimbabwe. Attempts to promote inclusion and access to the regular school education curriculum have resulted in the shift primarily from *where* a learner receives his or her educational program, to *what* and *how* the learner is taught (Ballard, 2012). Currently, the assumption for teaching learners with autism is to consider these learners' access to the regular classes focusing on the quality of learning taking place (Humphrey & Lewis, 2008). The presence of learners with autism in regular classes alone will not guarantee improved outcomes for these learners (Bitterman, Daley, Misra, Carlson, & Markowitz, 2008; Falkmer, Ochlers, Granlund, & Falkmer, 2015). Successful and effective supports for their learning, acceptance, participation, and achievement need also to be provided (Chandler-Olcott & Kluth, 2009; Jones & Frederickson, 2010; Pellecchia et al., 2015).

Whereas in Zimbabwe, there is a dearth of studies on support practices for including learners with autism in regular classes, internationally, a number of studies have been carried out on the subject. These include Humphrey and Symes (2013), Maich and Belcher (2012), and Leblanc et al. (2009). Common features of these studies are pooling resources, tailored teaching methods, essential training, teamwork, establishing collaborative cultures with families as well as nurturing a welcoming class climate. Although these are presently considered model practices, further research will demonstrate how they are implemented in including learners with autism in regular classes. Many studies reveal numerous benefits of inclusion in regular education while indicating that support practices for including learners with autism in regular classes are a fundamental global gap with respect to knowledge base (Emam & Farrell, 2009; Humphrey & Symes, 2013; Vakil et al., 2009). In several countries, including Zimbabwe, inclusion of learners with autism in regular classes is notably escalating since the philosophy was globally adopted in 1994 (Majoko, 2016; Musengi & Chireshe, 2012; Shadreck, 2012) making it imperative to investigate how they are being served to improve practice. In the absence of schools, teachers, and parents' ownership and commitment, full inclusion of learners with autism in regular classes will not be realized (Symes & Humphrey, 2010). Thus, the authentic voices of stakeholders, who are the implementers of educational innovations, including teachers require solicitation because of their experience and intuition regarding how inclusion of learners with autism in regular classes can be enhanced. In the subsequent section, challenges in including learners with autism in regular classes are presented.

Including Learners With Autism: Challenges

Despite the dearth of studies on challenges in including learners with autism in regular classes in Zimbabwe, several researchers have explored the subject internationally. Because there are individual differences among learners with autism (Beaston, 2008; Dingfelder & Mandell, 2011; Hess, Morrier, Heflin, & Ivey, 2008; Humphrey & Symes, 2013), the challenges revealed in literature may not apply to all of them. Significant deficits in interacting and repetitive behavior, interests, activities, and communication characterize autism (American Psychiatric Association [APA], 2013; Humphrey, 2008; Park, Chitiyo, & Choi, 2010). Due to the corresponding difficulty in social and language of autism (Chandler-Olcott & Kluth, 2009; Humphrey & Lewis, 2008; Lynch & Irvine, 2009), navigation of the social world is a challenge to learners with autism (Jones & Frederickson, 2010; Mandell et al., 2013; Pellecchia et al., 2015). Consequently, learners with autism are about 20 times more vulnerable to social exclusion in educational institutions in comparison with their counterparts without developmental delays (Humphrey, 2008).

Fundamental aspects of development, which are often challenging in pedagogy of learners with autism, include

processing of sensory input, playing creatively, interacting socially, and commutating verbally and nonverbally (Beaston, 2008; Brewin et al., 2008; Emam & Farrell, 2009; Wilmshurst & Brue, 2010). Comprehending and conveying personal needs to counterparts and teachers often challenges learners with autism (Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011; Maich & Belcher, 2012). Following class instructions and reading teachers' verbal and body expressions may also be complicated for learners with autism (Chandler-Olcott & Kluth, 2009; Segall & Campbell, 2012; Wilmshurst & Brue, 2010). Because of sensory issues, learners with autism have further difficulties in sustaining noisy settings, others' touches, and keeping eye contact (Leblanc et al., 2009; Lindsay et al., 2014; Symes & Humphrey, 2010). School environments are, however, busy, loud, and crowded (Farrell, Alborz, Howes, & Pearson, 2010), which complicates these learners' inclusion in regular classes. The complications of grasping the social domain for learners with autism can restrict these learners' establishment and reinforcement of relationships with their peers that can invoke stress and anxiety in them (Bitterman et al., 2008; Brewin et al., 2008; Vakil et al., 2009). As a result of the complications in emotional and social understanding of learners with autism (APA, 2013; Lynch & Irvine, 2009; Pellecchia et al., 2015), support practices are needed to include them in regular classes. Due to the above challenges revealed in previous studies, the current study sought to interrogate support practices for including learners with autism in Zimbabwean schools.

Rationale for the Study

According to Zimbabwe Ministry of Primary and Secondary Education, including learners with unique needs, including autism, in education is a national priority (Chireshe, 2013; Mpofu & Shumba, 2012). Consequently, educational provinces across the country, including Midlands educational province where the current study was carried out, have cited a notable escalation in the placement of learners with special needs, including autism, in regular Early Childhood Development (ECD) classes (Chireshe, 2011; Mugweni & Dakwa, 2013; Mushoriwa & Gasva, 2008). As a significant proportion of learners with special needs, including autism, are educated in regular classes (Chireshe, 2011; Majoko, 2016), teachers and families confront the challenge of realizing successful and effective inclusion despite the lack of clear policies, legislations, and adequate professional teacher preparation in the country (Mpofu & Shumba, 2012; Musengi & Chireshe, 2012; Shadreck, 2012).

While autism impairments are lifelong, they may be mitigated through early intervention (Dingfelder & Mandell, 2011; Hinton, Sofronoff, & Sheffield, 2008). Knowledge and information base for education and medicine reveal that utilizing inclusive pedagogy is among the best practices for serving learners with autism (Chandler-Olcott & Kluth, 2009; Falkmer, Anderson, Joosten, & Falkmer, 2015; Horrocks et al., 2008) as it supports the optimum functionality of these learners. Nevertheless, globally, including learners with special needs in regular classes is a complicated and ill-conceptualized domain of teaching and learning (Emam & Farrell, 2009; Humphrey & Lewis, 2008) as schools struggle to respond to the needs of learners with autism (de Boer & Simpson, 2009; Falkmer, Ochlers et al., 2015). As educating learners with autism is a worldwide challenge, it is critical to explore support practices for including these learners in regular ECD as it is the foundation of further education.

Parents of learners with autism, among other stakeholders, often express dissatisfaction with pedagogical services and programs and advocate for services and programs that are responsive to the uniqueness of these learners (Lynch & Irvine, 2009). Thus, more effort is needed to nurture regular classes that are friendly to learners with autism (Emam & Farrell, 2009; Hinton et al., 2008; Jones & Frederickson, 2010). As learners without developmental challenges usually emulate adults' behavior and attitudes, the attitudes of educators toward the education of learners with autism in regular classes are foundational as regards nurturing an inclusive pedagogical setting (Barnes, 2009; Falkmer, Ochlers et al., 2015; Horrocks et al., 2008). Resultantly, meeting the full range of needs among learners with autism is fundamental because these learners are likely to be socially excluded and bullied (Jones & Frederickson, 2010; Kasari et al., 2011).

The realization of inclusion in education requires research on teachers' comprehension of autism as well as their preparedness to meet the needs of learners with the condition (Park et al., 2010; Segall & Campbell, 2012). Nevertheless, several researchers have examined beliefs, attitudes, and perceptions regarding including learners with special needs, educational processes, and supports in regular classes (Berry, 2010; Donnelly & Watkins, 2011; Florian & Black-Hawkins, 2011). According to the best knowledge of the researcher, there is a dearth of studies on pedagogy of learners with autism in Zimbabwe. Thus, this study explored support practices for including learners with autism in Zimbabwean regular ECD classes so as to add to the limited national literature base as well as to glean practices to optimize access, equity, equality, and participation of these learners in education in tandem with the global and national priority. Specifically, the subsequent research question was addressed:

> **Research Question 1:** What are teachers' support practices for including learners with autism in regular ECD classes in Midlands educational provinces of Zimbabwe?

Method

Embedded in qualitative research methodology, the current study utilized a multiple-case study design. In the subsequent section, the design, sites, participants, procedure, and analysis of data of the study are presented.

Study Design

To solicit teachers' support practices for including learners with autism in regular ECD classes in Midlands educational province in Zimbabwe, this study was embedded in a multiple-case study design. Qualitative research methodology interrogates a given phenomenon from the people experiencing it through textual descriptions that can be analyzed for themes and can induce transferable interpretations (Pierce, 2008; Silverman, 2009; Wiersma & Jurs, 2009). As the study focused on individual participants' views, experiences, and practices, its methodological approach was entrenched in phenomenology. Phenomenological research is grounded in understanding of daily life situations of individuals (Pierce, 2008). Teachers' practices for supporting inclusion of learners with autism in mainstream ECD classes constituted components of daily life that were the focus of attention of the researcher.

Study Sites

Zimbabwean schools are categorized into 10 administrative educational provinces. The current study was executed in regular public primary schools in the Midlands educational province. English is the medium of instruction in these institutions. Midlands educational province comprises public primary schools in rural, semiurban, and urban settings of Kwekwe, Gokwe North, Chirumhanzu, Zvishavane, Gokwe South, Gweru, Mberengwa, and Shurugwi districts. One institution was drawn from each one of these settings from each district.

Participants

There are 766 regular public primary schools in Midlands educational province. To understand teachers' support practices for including learners with autism in regular ECD classes, public primary schools were purposively sampled from institutions that were inclusive of these learners. The sample constituted 18 public primary schools. Six institutions were drawn from urban, semiurban, and rural settings, respectively. Recruitment of teachers was through contacts with Midlands Provincial Education Offices of Zimbabwe. The researcher distributed information letters to contacts in the designated schools. Upon the head teacher's approval of the study, information letters were distributed to teachers who were perceived to satisfy the criteria for participation. The criteria for teachers' participation in the study included the following: at least a primary school teacher's diploma with an endorsement in ECD and an undergraduate degree in inclusive education or related field of specialization; at least teaching experience of 4 years in a regular ECD class, including a learner/learners with autism; and presently a teacher in a regular ECD class with a learner/learners with autism in Midlands educational province.

A total of 18 purposively sampled ECD teachers made up of 11 females and seven males, one per participating institution, participated in the current study. Theoretical saturation informed the adequacy of the number of the study participants. It was realized when there was no emergence of relevant or new data with respect to respective categories as well as when these categories were fully developed as regards their variations, dimensions, and properties (Creswell, 2009; Silverman, 2009). Each of the participants taught in a regular ECD class which had a maximum of 17 four- to five-year-old learners. Each regular ECD class included, at most, two learners who had high functioning autism whose intelligence ranged from average to above average. Participants were between 31 and 57 years old with five to 15 years of teaching experience. In addition to a primary school teacher's diploma with specialization in ECD, 12 participants had postgraduate qualifications in special needs education. Each of them was a host teacher to a student teacher. The researcher carefully gained entry into the schools, selected participants, and established cordial relations as well as maintained ethical protocols.

Procedure

The researcher sought and secured the ethical approval to carry out the study from the Ministry of Primary and Secondary Education of Zimbabwe as well as Midlands Provincial Education offices. The researcher sought informed consent from the participants before carrying out the investigation. The study was carried out between October 2014 and July 2015. Each participating school constituted a unit and unveiled a distinct context of regular ECD setting and culture. To interrogate support practices for including learners with autism in regular ECD classes, similarities and differences from these pedagogical settings were discerned by the researcher. The researchers carried out 18 individual interviews with participants, one interview per participant. Each interview lasted an average of 44 min. The following questions were designed to solicit data from individual teachers on support practices for including learners with autism in regular ECD classes:

- How long have you been teaching? (This was a probe for demographic information including number of years taught and teaching qualifications.)
- How do you serve learners with autism in your regular class?
- What works well when including learners with autism in your regular class?
- What can teachers do to include learners with autism in regular classes?
- What else would you like to add that we did not talk about regarding including learners with autism in regular classes?

With individual participants' consent, audiotaping and verbatim transcription of all individual interviews were done for subsequent analysis. Audiotaping facilitated more accurate collection of data. It also enabled the researchers' attention to the participants while interviewing them. English was used in carrying out individual interviews. Participants were interviewed in their classrooms after school hours, and participation was voluntary without any compensation. In spite of the organization and structure during interviewing because of the utilization of the interview guide, the researcher ensured flexibility through context-specific interrogation of issues.

The researcher carried out 18 nonparticipant class observations, one per participant. The focus was on regular ECD class interactions of all learners and teachers, learner interactions, pedagogical content, instructional approaches, learning materials and resources adaptation, instructional language, class accommodation as well as inclusive class management methods and techniques. Nonparticipant observations were grounded in gleaning teachers' support practices for including learners with autism in regular ECD classes. These enabled the solicitation of "thick descriptions" for understanding respective teachers' support practices for including learners with autism in regular classes. These observations lasted 40 min on average. The researcher recorded field notes using an observation guide. The researcher held informal conversations with the participants regarding pedagogy after each observation as a follow-up to ensure clarity. School observations through an inspection of infrastructure facilities, including buildings, of each of the participating schools were also carried out by the researcher. To ascertain institutionalized support practices for including learners with autism in regular classes, access audits were executed. The researcher recorded observations in the observation guide. Activities, resources, materials, and facilities of every observed school were photographed while social record books, remedial records, schemes of work, and lesson plans were analyzed to yield data on support practices for including learners with autism in regular ECD classes.

Data Analysis

Data that were collected from several sites, methods, and sources were triangulated to illuminate on emerging themes (Creswell, 2009). Interviews, observations, and analyses of documents assisted in assessment of the extent of convergence and complementarity of findings and elaboration on divergences between findings yielded (Silverman, 2009). While interviews facilitated comprehension of the process for inclusion of learners with autism in regular classes, observations augmented the contextual comprehension of the practice for inclusion of these learners. Interviews illuminated on observations as well as aided in validation of other observations. Triangulation of data constituted: identification of the study focus; discerning trends within and across sets of data; generation of initial codes; searching for similarities and differences for identification of initial themes that were overarching; reviewing of themes; definition, and renaming of themes; and report writing. Data organization and interpretation were grounded in the focus of the study. Upon completion of the preliminary data analysis, the researcher and two critical readers, who were experts in qualitative research, presented the primary themes that emerged to the participants for engagement and ultimately enhanced trustworthiness.

Findings

Through analysis of data thematically, nine themes relating to support practices for including learners with autism emerged. They are as follows: entry competencies informed pedagogy, structured routines, reinforcement, academic modifications, environmental modifications, socialization, communication, management of obsessions and compulsions, and collaboration and discourse. These were foundational in including learners with autism in regular classes.

Entry Competencies Informed Pedagogy

All (18) participants revealed that they entrenched pedagogy in entry competencies of learners with autism to include these learners in regular ECD classes, as confirmed in the subsequent selected statements (fictitious names utilized to ensure participants' anonymity and confidentiality):

> Since my learners with Autism Spectrum Disorder (ASD) have visual-spatial strengths, I use visual teaching and learning approaches to keep them focused on the taught concept. I use visual supports of interest to them including natural and man-made resources and materials in my teaching. I use pictures of local animals and fruits that motivate them to learn and keep focused when teaching different subjects such as mathematics and science, expressive arts and social sciences.

Meanwhile, other participants (14) reported that they used learning styles that were commensurate with characteristics of learners with autism:

> Learning styles of children with ASD in my classroom including visual, tactile, kinesthetic and auditory informs my teaching. For instance, when I want a child with ASD to unlock the classroom door when he or she gets to the classroom in the morning, I summatively explain while demonstrating exactly how to do this. This supports children with ASD to successfully carry out tasks which results in their self-realization and social acceptance by their classmates without the condition. (Mbeva)

Most participants (15) revealed that they were proactive rather than reactive in managing the behavior of learners with autism to include these learners in regular classes:

> As long as children with ASD do not engage in self-injurious behavior, I patiently and consistently wait for them to calm when they throw temper tantrums. I have sensitized children without developmental challenges to continue with their activities when their peers with ASD throw temper tantrums. Children without developmental challenges understand and are accommodative of the behavior of their peers with ASD. (Nyati)

Nhoro added,

> I capitalize on the social strengths of my learners with ASD. In cooperative learning, I pair or group them with their typically developing friends. Children with and without ASD engage socially and academically. Interests and choices of learners dictate my grouping practices.

Observations and document analysis revealed that the entry competencies of learners with autism informed pedagogy in regular classes. All participants (18) were observed managing pedagogy based on the entry competencies of both learners with and without autism. For instance, based on their verbal proficiency, some learners with autism were observed being taught communication of personal information, including their names and surnames, dates of birth, and villages, while others were observed being taught personal grooming, including combing hair and tying shoelaces based on their motor skills competence. With the support of student teachers, participants were observed providing individualized instruction and support including coaching and prompting to both learners with and without autism who had baseline skills and competencies.

Strategic Use of Structured Routines

Most (13) participants reported that they strategically managed structured routines in including learners with autism in regular classes. For instance, Bimha argued,

> I provide visual schedules of the events of every school day. I put such schedules in a location which is easily seen by all learners in my classroom. Because of these schedules, learners with ASD are always clear of expectations and settled.

Kamba elaborated,

> I write out visual schedules and pair them with picture symbols that capture the attention of both pupils with and without ASD. I attach these schedules to the desks of all pupils. Because of structured routines with visual supports that speak to the interests of learners, they are always aware and ready to execute daily curricular and cocurricular activities.

As embodied in class diaries, most participants (14) were observed extending visual displays and structured routines that were ordinarily available for all learners. Visual supports including visual cues to augment oral communication, visual representations of steps in class routines, labeled chairs, doors, objects, chalkboards, daily schedules, individualized schedules for both learners with and without autism, and visual schedules were observed for working stations. One participant was observed requesting the learner with autism to read the upcoming activity of the day on the schedule of the class.

Reinforcement

All (18) teachers revealed that they used reinforcement in developing and maintaining behavior and motivation in including learners with autism in regular classes. For example, Haka argued,

> I reinforce nonpreferred activities of both educands with and without ASD with preferred activities, contingent upon completion of assignments. When an educand with or without ASD, for instance, has complications in keeping focus on any subject assignment, he or she can spend 10 minutes in the play centre after completion of his or her assignment. Both educands with and without ASD are enthusiastic to complete assignments because of my reinforcement system.

Tsenzi elaborated,

> I carry out a preferred reinforcer assessment in consultation with families of learners with ASD and their counterparts without developmental challenges before teaching. I provide reinforcement to learners with ASD and their typically developing counterparts soon after their completion of tasks in order for them to make the connection. I use preferred reinforcers such as clay cows, wire cars and clay pots for effective reinforcement and ultimate shaping of the behavior of the learners with ASD which facilitates their social acceptance in the class.

Several (13) participants reported that they used reinforcements to manage the behavior of both learners with and without autism to facilitate inclusion:

> I reward socially approved behavior to support all learners to stay on task. This prevents behavioral outbursts by learners with ASD which enhances their social inclusion in the classroom. I use learners' favorite wild fruits, games, magazines and verbal praises for them to concentrate on assigned work. (Shato)

The environments of the observed classes were friendly to both learners with and without autism. For instance, storerooms were used as "safety zones" for learners with autism for relaxation and calming down, and dull and limited wall charts were used to eliminate distraction as well as sensory overload for learners with autism. Consistent with their daily lesson plans, all participants were observed using positive programming interventions including direct teaching of learners with autism to inculcate behavior in them for compliance with the expectations. Reinforcements, including the presentation of favorable rewards such as play time and verbal praises to enhance appropriate behavior, were used. All

participants were observed using consequence-based interventions including ignoring behavior that was not interfering with the class atmosphere and a token economy such as stars and stickers to reinforce the behavior of both learners with and without autism.

Academic Modifications

All (18) teachers reported that they used academic modifications to include learners with autism in regular classes.

> I reduce the number of assignment items that learners with ASD can complete. This sustains the attention of those with fine-motor deficits and motivates them to learn. I also use alternative assessments to include learners with ASD. Alternative response modes including drawing and signing answers in assignments facilitates academic achievement of learners with ASD. (Mhara)

Nzou added,

> I seek support from other stakeholders including peer teachers and paraprofessionals in teaching educands with ASD. Specialist teachers, educational psychologists, therapists, school administrators, community health workers and parents support me. They support children with ASD in the social, psychological and educational domains including self-care which catalyzes the inclusion of these children.

In alignment with the content and the teaching and learning activities of their lesson plans, all participants were observed delivering teaching and learning content in response to the cognitive level of functioning of learners with autism. Participants were observed gradually increasing the level of complexity of pedagogical content and supporting learning with visual information. This was done using hands-on approaches and concrete daily living examples in teaching and learning while breaking down complex teaching and learning tasks into subtasks which were taught and sequentially reinforced based on learners' requisite skills. All participants were observed analyzing and tackling academic skills, social skills, and life skills as subtasks with each step taught but then linked to the next in a chain of subtasks in alignment with their lesson plans.

Environmental Modifications

All (18) participants revealed that they modified the pedagogical environments in including learners with autism in regular classrooms. Specifically,

> I adopt several environmental adaptations in my classroom including eliminating distracting stimuli such as noise, providing choices, favorite peers and activities and using a nearby vacant classroom as a relaxing zone. These eliminate inappropriate behavior and develop positive behavior in educands with ASD thereby facilitating their inclusion.
>
> I keep the desks of learners with ASD and some of their typically developing counterparts close to me facing the front of the classroom to ensure that they are on-task. Since learners with ASD in my classroom do not tolerate noise, I have designated a tree at the back of my classroom as a quiet zone for them. They also retreat to this quiet zone when they are overloaded with stimuli. (Mhembwe)

Bimha added,

> I eliminate environment nuisance variables to create a friendly environment for inclusion of learners with ASD. I have sensitized typically developing learners to maintain low levels of noise in the classroom and I avoid bright wall charts. This eliminates anxiety in children with ASD contributing to their social and educational fitting in the classroom.

Consistent with their schemes of work and daily lesson plans, most participants were observed using several classroom management strategies to support a structured pedagogical environment for the provision of consistency and clarity of expectations in specific situations and anticipation of upcoming events to learners with autism. Daily visual schedules for learners with autism, with different tasks and alternate activities which fitted into overall classroom schedules, were observed. Daily activities, which were written in lesson plans, were presented visually and put on the desks of learners with autism to explain changes to activities and expectations.

Socialization

All participants (18) reported that they taught social skills to include learners with autism in regular classes, as indicated in the subsequent selected statements:

> I provide pupils with ASD the opportunity to access peer models and social opportunities for participation and interaction in diverse settings and activities such as school, work, and sport and recreation activities with appropriate natural cues, stimuli and reinforcers. I also teach social skills and comprehension of social situations using several strategies including social stories written by parents, typically developing pupils and myself. These social stories present situations from the home and school lives which develop in pupils with and without ASD positive behaviors for coexistence. (Bere)

Nyati elaborated,

> I craft easily seen and understandable periodically reviewed social rules which facilitate social interactions between learners with ASD and those without developmental challenges. Since my learners with ASD have social deficits, I use those without developmental challenges as peer models and discussions, debates, puppetry, questioning and rehearsal of strategies for social interaction. I also integrate disability issues in teaching which helps learners without developmental challenges to understand and accept their counterparts with ASD.

Most participants (14) were observed using several strategies including the provision of opportunities for participation and interaction in diverse natural contexts with relevant stimuli, models, and natural cues. This was done to equip learners with autism with social skills in alignment with teaching and learning activities which were in their lesson plans. These included social interaction–oriented techniques, including puzzles, word games, role-play, drama, simulation, discussions, debates, playhouses, ball games, and hide-and-seek. Participants were also observed using social stories which constituted descriptive sentences, directive statements, and perspective statements in supporting communication, social interaction as well as including learners with autism in regular classes.

Communication

All teachers (18) revealed that they strategically taught communication to learners with autism in including these learners in regular classrooms, as indicated in the subsequent selected excerpts:

> In teaching communication, I target paying attention, imitation, comprehension and use of language in social interaction to facilitate the inclusion of learners with ASD. I take on board the communication abilities of learners with ASD in my classroom. Since most of them lack functional language, I use paired gestures with speech to ensure inclusive pedagogy. (Bimha)

Nyati added,

> As a class, we use sign language and total communication to communicate with educands with ASD. As a result, there is effective teaching and learning of educands with ASD in the company of typically developing educands. Most importantly, there is effective communication between typically developing educands and educands with ASD because of use of alternative communication.

Shato elaborated,

> I determine communicative attempts exhibited by the behavior of learners with ASD. I reinforce their appropriate behavior such as asking to go to the toilet appropriately and ignore inappropriate behavior such as screaming when signaling to want to go to the toilet. However, when it is complicated to ascertain the function of a learner's behavior, I use a behavior plan. This constitutes the antecedent and consequence in managing the behavior of learners with ASD. This promotes positive behavior in these children and their accommodation by those without ASD.

Meanwhile, Bere argued,

> I use concrete language to eliminate abstract concepts as pupils with and without ASD misunderstand abstract language. In teaching expressive arts, language arts, mathematics and science, social sciences, technology and other subjects, I use diverse teaching methods, strategies and techniques including group projects, telling and listening to stories, song and dance, discussions, debates, quizzes and rhymes to develop receptive and expressive language in children with ASD. Children with ASD engage in learning with the rest of their classmates as I use teaching methods, strategies and techniques that are grounded in their interests and needs.

Consistent with the content and activities of their lesson plans, most participants (16) and typically developing learners were observed using several strategies to support communication of learners with autism. These included clear, simple, precise, and concise language, and familiar, concrete, and specific words used daily. Participants paced their speech according to the abilities of individual learners to afford them time for processing information. Participants also used social interaction–oriented activities including pair work, group work, whole-class assignments, and games to support communication, thereby including learners with autism in regular classes.

Strategic Management of Obsessions and Compulsions

All participants (18) reported that they strategically managed obsessions and compulsions to include learners with autism in regular classes, as confirmed in the following statements:

> I prepare and explain any changes regarding the daily routine to both learners with and without ASD. I put picture symbols and texts on the schedule to show change in routine, for instance, change in break time. I then verbally and visually remind children learners with ASD of the upcoming events a few minutes before the transition in order to lower the potential for anxiety. (Bere)

Gudo elaborated,

> When introducing new activities and reinforcing positive behavior, I use short intervals of time as my children have narrow interests which they obsessively pursue. I use task analysis, progressing at the rate of children's response to new content and activities. I use reinforcement to optimize the probability of success as it results in changes in the behavior of children with ASD. I also use age-appropriate teaching and learning materials and resources, including toys, with both children with and without ASD to avoid labeling and stigmatization.

Most participants (15) were observed affording learners with autism the chance to retreat and relax and using proactive teaching approaches in keeping with their behavior management record books. All observed participants had behavior plans embodying targeted alternative behavior, instruction and management strategies, and specific interventions based on identified behaviors of learners with autism. These written plans spelt out the goals for change of behavior, adaptations in the environment, and reactive strategies, and set review dates for behavior goals.

Consultation and Partnership

All participants (18) revealed that they consulted and partnered with other stakeholders in including learners with autism in regular classes, as confirmed in the following selected statements:

> Parents inform me about the current and future needs of their children with ASD. I use their strategies to manage and communicate with children with ASD. Typically developing children inform me about the interests of their peers with ASD including games and toys which I use in teaching. I also collaborate with the community, speech and language pathologists, educational psychologists, school administrators, specialist teachers and traditional leaders to mobilize expertise, finance, technology and materials such as toys, textbooks and stationary for both children with and without ASD. (Tsenzi)

Nyana added,

> I pool expertise in designing individualized educational plans for children with ASD through working in consultation and partnership with families, student teachers, parents, educational psychologists, social workers and therapists. Because of collaboration with our school community, donors, child welfare organizations, organizations of and for people with disabilities, social workers, therapists, churches and politicians, I have expert, moral, social, psychological and material support in the inclusion of children with ASD.

Most participants (16) were observed delivering services to learners with autism in consultation and partnership with other stakeholders, including fellow teachers, student teachers, typically developing learners, occupational therapists, speech therapists, physiotherapists, nurses, community leaders, and school administrators. For instance, some typically developing learners were observed informing the participants about the favorite games of their peers with autism while some participants were observed gleaning strategies from parents for managing the behavior of their learners with autism, including outbursts. An analysis of minute books revealed that most institutions had multidisciplinary teams for the delivery of services to learners with autism although such teams were not fully composed due to the lack of some members, including therapists and educational psychologists. All observed settings had scheduled meetings on school improvement plans for inclusivity in education for the year with parents, community leaders, professionals, and other stakeholders.

Discussion

Since Zimbabwe adopted inclusive education in 1994 in alignment with the global arena, learners with special needs, including autism, learn in regular classes (Mugweni & Dakwa, 2013; Musengi & Chireshe, 2012; Shadreck, 2012). However, the presence of learners with autism in regular classes does not guarantee their learning and their counterparts' welcoming of them (Brewin et al., 2008; Humphrey, 2008), creating a challenge for teachers (Lindsay et al., 2014; Pellecchia et al., 2015). Inclusion in education is, nevertheless, fundamental in social, academic, career development, sense of belonging, and full participation of learners including those with special needs, including autism, in regular schools, families, and communities (Maich & Belcher, 2012). Previous studies examined teachers' challenges in including learners with autism in regular classes or their perception of the practice. There is, thus, a dearth of studies on support practices for including learners with autism in regular classes, hence this research.

Support practices for including learners with autism in regular ECD classes in Zimbabwe found in this study are evidenced based and/or commonly used in other countries. In including learners with autism in regular classes, teachers entrenched individualized instruction in whole-class pedagogical context. Individuality of learners with and without autism informed pedagogy in regular classes. Teachers who managed the pedagogical content, process, and assessment in regular classes were found to respond to these learners' needs, optimizing academic success and full participation of these learners. Past research, similarly, found that inclusion embodies access and success of all learners, inclusive of those with special needs and needing teaching and learning support (Black-Hawkins & Florian, 2012; Boyle, Topping, & Jindal-Snape, 2013; Florian & Black-Hawkins, 2011; Florian & Linklater, 2010). Individuality of both learners with and without autism took center stage in teaching and learning to enhance inclusion in regular classes. Teachers' understanding that every learner with or without autism is an individual, and the realization of the importance of looking beyond the label so as not to define learners by their diagnosis supports inclusion in regular classes. Teachers need to see past the label so that stereotypes are challenged and their expectations about the capabilities of learners with autism are raised.

Teachers also strategically managed structured routines to nurture rich pedagogical communities for learners with autism and their typically developing counterparts in regular classes. To optimize inclusion in regular classes, teachers used visual schedules and reinforcement for both learners with and without autism. This finding resonates with inclusive pedagogical philosophy (Florian & Black-Hawkins, 2011), which requires teachers to extend what is generally availed to all learners and the creation of community of practice instead of utilization of pedagogy that is appropriate for the majority alongside something "additional" or "different" with respect to learners who experience barriers to learning. Teachers managed pedagogy of learners with autism in the community of their peers without the condition. In the same vein, previous studies reveal that inclusion entails the equal valuation of every learner as a member of the school culture (Flecha & Soler, 2013; Florian & Linklater, 2010; Slee, 2011). Simple environmental adaptations can support inclusion of learners with autism in regular classes.

Consistent with inclusive pedagogical philosophy (Florian & Black-Hawkins, 2011), which dismisses rigid perceptions regarding capability and the premise that including learners with special needs hampers the achievement of those without special needs, teachers further focused on abilities rather than limitations of individual learners with and without autism in regular classes. In developing and maintaining the behavior and academic success of individual learners with and without autism in regular classes, teachers used reinforcements. "Learning for all" informed teachers' management of behavior and pedagogy in regular classes, which potentially curtailed differences. Similarly, past research has established that inclusive pedagogical settings support learners with autism to learn in the community of their typically developing peers (Chandler-Olcott & Kluth, 2009; de Boer & Simpson, 2009; Vakil et al., 2009). Positive reinforcements, which are based on the interests of individual learners with and without autism, support inclusion in regular classes.

Similarly, teachers used academic modifications in pursuance of inclusion and educational success of both learners with and without autism in regular classes. Such academic modifications included reduction of assignment items, task analysis, peer and paraprofessional support, and alternative response modes in question answering for learners with and without autism in regular classes. Thus, teachers' practices were in alignment with the premise of inclusive pedagogy (Florian & Black-Hawkins, 2011) that all learners can progress. Similarly, previous studies have found that inclusive education entails coexistence and achievement of both learners with and without disabilities (Ballard, 2012; Deluca et al., 2013; Slee, 2011). Teachers' use of teaching, learning, and assessment strategies and techniques that meets the individual needs of learners with autism, coupled with support from peer teachers and paraprofessionals, supports inclusion of these learners in regular classes.

Teachers also modified pedagogical environments to include learners with autism in regular classes. This finding is in alignment with Florian and Black-Hawkins's (2011) inclusive pedagogy, which obligates educators to research and adopt innovative strategies so as to facilitate teaching and learning of learners with and without developmental delays. Teachers supported inclusion in regular classes by making modifications to the pedagogical environments which included the reduction of noise levels and strategic seating arrangements of both learners with and without autism. Similarly, previous studies advocate for nurturing "autism friendly" classes (Barnes, 2009; Falkmer, Ochlers et al., 2015; Hinton et al., 2008). In alignment with inclusive pedagogical philosophy of Florian and Black-Hawkins, which is grounded in viewing complexities with respect to pedagogy as barriers in education, educators explored strategies for establishing and reinforcing pedagogical environments that facilitated learning of learners with autism in regular classes. Teachers' modification of regular classes through creating structured environment can assist in including learners with autism in these settings.

Educators further socialized learners with and without autism in supporting inclusion in regular classes. Teachers socialized both learners with and without autism to facilitate social interaction in regular classes. Similarly, past research has established that fully included learners with autism socially interact (Hess et al., 2008; Kasari et al., 2011; Locke, Ishijima, Kasari, & London, 2010). Consistent with the premise of Florian and Black-Hawkins's (2011) inclusive pedagogy that "all" learners succeed, teachers socialized both learners with and without autism using peer models and in-class disability awareness information sessions. These strategies supported full involvement and participation of learners with and without autism in regular classes. Similarly, previous studies reveal that inclusion entails equal valuation of every learner as an integral component of the culture of the school system (Ballard, 2012; Chhabra et al., 2010; Donnelly & Watkins, 2011) involving access and success (Falkmer et al., 2012; Flecha & Soler, 2013; Forlin & Chambers, 2011). In the same vein, respecting the self-worth of individual learners as equal partners in the class informs inclusive pedagogy (Florian & Black-Hawkins, 2011). Learning of social skills embedded in home and school contexts can foster social development in learners with autism and ultimately facilitate their inclusion in regular classes.

In addition, educators supported communication of learners with autism so as to include these learners in regular classes. In such facilitation, teachers paired gestures with speech in communication; used sign language, concrete language, and total communication; reinforced positive communication; and capitalized on the abilities of learners with autism. This finding aligns with Florian and Black-Hawkins's (2011) inclusive pedagogical philosophy, which requires teachers to focus pedagogy on what learners are able to do instead of what they are unable to do. Similarly, previous studies have found that preparation of teachers for autism (Falkmer, Ochlers et al., 2015; Hinton et al., 2008; Park et al., 2010) is foundational in inclusion of learners with the condition in regular classes. Learner diversity informed pedagogy in regular classes. In the same vein, Florian and Black-Hawkins's inclusive pedagogy requires teachers' accounting for differences as an important component of development of learners in conceptualizing teaching. Teaching communication to learners with autism and the utilization of argumentative techniques of communication based on their communication abilities can be helpful in including these learners in regular classes.

Teachers also strategically managed obsessions and compulsions in including learners with autism in regular classes. In alignment with Florian and Black-Hawkins's (2011) inclusive pedagogical philosophy which is entrenched in learning for all—the idea of everybody ("not some and most") instead of exclusively learners diagnosed of "additional needs"—teachers' explained changes regarding daily routines and used reinforcement focused on both learners with and without autism. Such teacher application of a universal approach to the management of obsessions and

compulsions potentially eliminated typically developing learners' stigmatization of their peers with autism. Consistent evidence reveals that social justice and human rights principles inform inclusive teachers' management of both learners with and without disabilities (Ballard, 2012; Donnelly & Watkins, 2011; Vakil et al., 2009). The creation of a schedule by the teacher that allows learners with autism to know about the daily routine and be aware in advance of events taking place can aid in including these learners in regular classes.

Teachers engaged other stakeholders in including learners with autism in regular classes. Teachers consulted and partnered with parents, typically developing children, professionals, and paraprofessionals in including learners with autism in regular classes. This finding concurs with Florian and Black-Hawkins's (2011) inclusive pedagogy, which demands educators to collaborate with other stakeholders who are respectful of learners' dignity. Teachers worked with other stakeholders in including learners with autism in regular classes. Consistent evidence reveals that teacher collaboration with other stakeholders in implementing inclusive education is foundational in pooling inclusive resources (Boyle et al., 2013; Chireshe, 2013), including personnel, materials, finance, and technology.

Research Limitations and Future Research

Participants of the present study were purposively selected from one province in Zimbabwe. As learners with autism are included in regular classes nationally, practices for supporting inclusion of these learners need to be solicited from a countrywide representative sample for transferability of findings. Resultantly, the transferability of the present study's findings to regular ECD classes that include learners with autism in Zimbabwe cannot be known. Teachers may have changed their instructional strategies because of their awareness that they were being observed.

This study did not also incorporate perspectives and experiences of other stakeholders inclusive of both learners with and without autism and their parents, principals, social workers, and therapists. Resultantly, whether these stakeholders' perspectives and experiences on support practices for including learners with autism in regular ECD settings are consistent with those expressed by teachers cannot be ascertained. Further research could solicit for the aforementioned stakeholders' perspectives and experiences to glean diverse support practices for including learners with autism in regular ECD classes. Comprehensive information that could serve as a springboard for teacher preparation and development for inclusion of learners with autism in regular ECD classes can be yielded.

The present research further explored teachers' practices for supporting inclusion of learners with autism in regular ECD classes, yet other practices of other stakeholders inclusive of parents, educational psychologists, and therapists could also facilitate the practice of the philosophy. Resultantly, future studies could solicit for the above-mentioned stakeholders' support practices for including learners with autism in regular ECD classes. As this research revealed the criticality of the attitudes and preparation of teachers in supporting inclusion of learners with autism in regular ECD classes, further research could examine models of teacher preparation and development for autism. Also, further studies could interrogate effective models of collaboration between stakeholders and academic and environmental adaptations in including learners with autism in regular ECD classes.

Conclusions and Recommendations

Although challenges abound in including learners with autism in regular ECD classes, educators exhibited conceptualization, positive attitudes and commitment to these learners, and the philosophy, and strategized to practice it. Capitalization of education authorities on teachers' conceptualization and positive dispositions through supporting them can optimize their support for including learners with autism in regular ECD classes. Inversely, education authorities' failure to provide support may result in teachers' failure to include learners with autism in regular ECD classes. As the sociocultural life and environment is critical in including learners with autism in regular ECD classes, teachers' exposition to sociocultural issues in their preparation and development is indispensable in improving their effectiveness in service delivery to these learners in regular ECD classes. Considering teachers' centrality in including learners with autism, teacher training institutions need to institutionalize comprehensive teacher preparation and development for autism to ensure teachers' professional competence in responding to the diversity of learners with the condition in regular ECD classes.

As inclusion benefits learners with and without autism and the society in its entirety, all stakeholder individuals, organizations, and institutions need to work in collaboration and discourse for the advancement of the cause for the betterment of humanity. As competence of stakeholders is integral in inclusion of learners with autism in regular classes, staff development initiatives inclusive of conferences and meetings need to be institutionalized for parents, teachers, policy makers, and school communities to garner their support and commitment toward the practice. In tandem with teachers' co-option of disability issues in teaching and learning, disability issues need to be incorporated in curriculum development to sensitize stakeholders, including typically developing learners, on human exceptionality and the impetus for inclusivity. As collaboration of stakeholders is indispensable in inclusion of learners with autism, communities of practice such as teacher–teacher and teacher–parent are instrumental in including these learners through synergy and syllogism. As multidisciplinary teams were not fully constituted to support inclusion of learners with autism in regular

classes, the professional training of staff is an imperative. On account of the criticality of adequate resources in including learners with autism, schools need to collaborate with other stakeholder individuals, organizations, and institutions in pooling requisite resources. Similarly, sensitization of teachers on the available legal framework, technological, human, time, financial, and material resources can enhance support practices for including learners with autism in regular ECD classes.

Ethical Approval

Ethical approval to conduct this study was applied for and secured from the Head Office of the Ministry of Primary and Secondary Education of Zimbabwe, Midlands Provincial Education Office, head teachers of regular primary schools, and participating teachers before its execution. These parties were provided with information to secure the permission to carry out the study.

Informed Consent

Participants were informed about the purpose of this study and provided with the option of participation or nonparticipation. They were also guaranteed of their right to withdraw from the study during anytime if they so wished.

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