A Critical Analysis of how Teachers Accommodate Children with Autism Spectrum Disorders in Zimbabwean Mainstream Primary Schools: An ethnographic study of Reigate District in Bulawayo Metropolitan province

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Abstract: **This qualitative study used ethnographic design (participant observation in conjunction with in-depth interviews) with purposive sampling method guided by the theoretical framework of Bronfenbrenner's social ecological systems theory to closely analyze how teachers accommodate children with Autism Spectrum Disorders (ASD) in Zimbabwean mainstream primary schools. In-depth interviews with observations of 20 participants were used in this study. The study revealed that primary school teachers used aversive stimulus such as punishment, harsh or fame rebuke and sharp disapproval or criticism of autistic behaviour as a way of accommodating and controlling autistic children's repetitive behaviours such as hand-flapping, rocking, jumping, spinning or twirling and complex body movements during the mainstream lesson. This study also revealed that lack of psychological knowledge to deal with autistic children, lack of teaching strategies, Autism learners' social impairment, ASD learners' communication or personal expression difficulty, inattentive and hyperactive behaviors, autistic children's behavioral disorders, large class sizes and lack of appropriate resources were the teachers' challenges in the teaching of children with ASD in mainstream primary schools. The study recommended that there is need for the Ministry of Primary and Secondary Education to ensure that teachers are adequately trained, developed and equipped with psychological knowledge and skills to deal with autistic children. There is need for the provision of school psychologists as a supportive way of stabilizing teachers' perceptions in the teaching of children with ASD in regular classes and to emphasize the use of Teaching Assistants in the classroom to promote effective teaching of children with ASD. Finally, the study recommended that ASD pedagogy model, as a teaching device, should be researched and designed to promote effective teaching of children with ASD in mainstream.**

Key words: **Autism Spectrum Disorder, Accommodation, Mainstream primary schools, effective teaching, Children with Autism Spectrum Disorder.**

I. INTRODUCTION

The pursuit of inclusive education (mainstream primary schools) for more than three decades is evidenced by the Zimbabwe Education Act of 1987, as revised in 2006 (Chireshe, 2013; Majoko, 2013; Mpofu & Shumba, 2012), mandates the education and accommodation of children with Autism Spectrum Disorder (ASD) in primary schools. Autism spectrum disorders (ASD) are life-long neurodevelopmental disorders characterized by impairments in social interaction, communication and restricted patterns of behavior, interests and activities (American Psychiatric Association, 2013; Soto-Chodiman et al, 2012). ASD in mainstream classrooms is basically characterized by problems in communication (delay or lack of language development), social development (lack of development of peer relationships, impaired non-verbal behaviour), resistance to change and ritualistic behaviour (American Psychiatric Association, 2012; Carpenter, 2013). It is among the most common early childhood neurological disorders in the world (Busby et al., 2012; Humphrey and Symes, 2013) including Zimbabwe (Chireshe, 2013; Majoko, 2018). Some of teachers reported that children with ASD are isolates, hard to cope with the environment, less cooperative slow learners, antisocial, less confident, and easy to forget (Chireshe, 2013; Edward, 2015; Majoko, 2018) hence difficult to accommodate in the mainstream. Available literature revealed that mainstream primary schools in Zimbabwe are struggling to successfully and effectively motivate, accommodate and teach children with ASD to restore their shuttered 'SELF' and promote learning (Chireshe, 2013; Majoko, 2018; Mandina, 2012). Thus, in Bulawayo province particularly, comparable to the global world, research into motivational strategies, techniques and approaches for successful and effective motivation as well as accommodation of children with ASD in mainstream classrooms is imperative (Majoko, 2018; Mandina, 2012). Based on the available literature, there is a dearth of studies on how teachers accommodate children with Autism Spectrum Disorders in mainstream primary school classrooms in Zimbabwe hence the study (Chireshe, 2013; Majoko, 2016; Mandina, 2012).

Statement of the problem

An increase of children with ASD in Zimbabwean mainstream primary schools raised a query on how general qualified teachers accommodate children with ASD in their inclusive class. Available literature reveal that several schools struggle to meet the full range of needs of children with ASD in the mainstream pedagogy (Humphrey & Lewis, 2008; Leblanc et al, 2009) hence motivated this study to critically anaylse how teachers accommodate children with ASD in Reigate district (Zimbabwe) mainstream primary schools.

Sub-Research Questions

1. How do teachers accommodate children with ASD in mainstream pedagogy?
2. What are the challenges affecting effective teaching of children with ASD in mainstream primary schools?
3. Which are the strategies to promote effective teaching of infant learners with ASD in mainstream primary schools?

Purpose of the Study

The purpose of this study is to closely analyze how teachers accommodate children with Autism Spectrum Disorders (ASD) in Reigate district mainstream primary schools in order to establish strategies to promote effective teaching of children with ASD in mainstream schools.

II. THEORETICAL FRAMEWORK

This study was guided by Bronfenbrenner's social ecological systems theory which believe that one's surroundings (including mainstream class, children with ASD, level and variance of ASD, curriculum, work, class size, learning resources and classroom environment) have an influence on the way an individual teacher accommodate children with ASD (Donald et al, 2010; Mann, 2013; Scott-Croff, 2017; Stephens, 2018;). Bronfenbrenner's social ecological system presents that human development (teacher's ability to accommodate children with ASD in mainstream primary schools) occurs within an interactive system of nested influences between the teacher and children with ASD in the mainstream school system (Chataika, 2007; Donald et al, 2010; Scott-Croff, 2017;). Thus, the closest objects are the mainstream class members (teacher, peers, learning resources) that are a constant presence in an autistic child's learning life (Predescu, Ghazi & Darjan, 2018; Stephens, 2018). They are the mediators between the autistic child and the learning environment. From this perspective, the teacher is attempting to change the autistic child and to facilitate his or her adjustment to the learning environment in mainstream class (Predescu et al, 2018).

The intervention at this level is mainly educational guidance and counselling aiming to accommodate and remedy the autistic child in the mainstream (Preece & Trajkovski, 2017). Thus, challenges in accommodating and teaching of children

with ASD in mainstream primary schools cannot be achieved in isolation but in relation to their mainstream primary school system. Psychologically, Bronfenbrenner's social ecological systems believe that children with ASD are social species that interact with teachers, mainstream peers, objects in classroom and learning resources (Predescu et al, 2018; Scott-Croff, 2017; Stephens, 2018). This framework guided the study to critically analyze how teachers accommodate children with ASD in Reigate district mainstream primary schools. In-depth interviews and observations of the interaction between teachers and children with ASD in mainstream lessons were informed by Bronfenbrenner's social ecological system theory and generated challenges affected effective teaching of children with ASD in mainstream primary schools (Bronfenbrenner, 2004; Chinyoka, 2013).

Bronfenbrenner's theory reveals the interconnectedness and interdependence of elements (such as teachers, children with ASD, mainstream peers, buildings, benches, objects in classroom and learning resources) that form the social ecological system of children with ASD in mainstream primary schools (Scott-Croff, 2017; Stephens, 2018). This interaction is the nucleus of the framework that assisted this study to closely analyze how teachers accommodated children with ASD and challenges affected effective teaching of them in Reigate mainstream primary schools (Donald et al, 2010). Thus, a gap in any of the elements (between the teacher and children with ASD in mainstream primary school system) reveals a short circuit (teachers' challenges to accommodate and effectively teach children with ASD in mainstream primary schools) (Chataika, 2007). The psychological implication is that, an occurrence of a short circuit at any stage of interconnectedness would result in poor accommodation and challenges affecting effective teaching of children with ASD in mainstream primary schools (Chataika, 2007; Donald et al, 2010).

In order to explore how teachers accommodate children with ASD and challenges affecting effective teaching of them in mainstream primary schools, Bronfenbrenner's social ecological system theory demands a better understanding of the intertwined nature of the requirements, context and teaching of children with ASD in mainstream primary school society from micro to macro levels (Bronfenbrenner, 2004; Chataika, 2007; Donald et al, 2010). Therefore, lack of sustainable partnership between teachers and children with ASD in mainstream primary school system at any level within the framework can be a recipe for teachers' poor accommodation and challenges in the effective teaching of children with Autism Spectrum Disorders in Reigate district mainstream primary schools. Bronfenbrenner's social ecological system theoretical framework allowed the researcher of this study to make sense of the inclusion of children with ASD in mainstream primary schools. Thus, the framework helped this study to understand the experiences of teachers and children with ASD in mainstream lessons.

The accommodation of children with ASD in mainstream pedagogy

According to some international studies, accommodation in education involves an alteration of an inclusive learning environment to allow an individual with a disability to gain access to same content, concepts, skills and meaningful learning as their peers (Ambady & Mathew, 2018; Beech, 2010). Psychologically, teachers need to possess teaching skills for accommodating children with ASD in the mainstream to promote effective teaching and learning. Teaching children with ASD may need specific psychological approaches and techniques to promote learning (Leach & Duffy, 2009). Similarly, teaching strategies that can be used can vary with the autistic child's age, setting of the mainstream classroom and the level of autism disorder (Hess, Morrier, Heflin & Ivey, 2008). Therefore, it is consequently fundamental to equip teachers with as many psychological strategies as possible to allow or accommodate children with ASD in the mainstream pedagogy (Lindsay et al., 2013). In Tanzania, many teachers reported that they used different alternatives such as aversive and non- aversive to ensure that autistic children learn and benefit from regular classes (Edward, 2015). Findings from the study revealed that showing love, involvement, close relationship and material support made autism children participate in their mainstream lessons. Therefore, teachers need to have a comprehensive knowledge of autism disability and be able to accommodate and manage the manifested overt behaviours (Edward, 2015; Hart & Malian, 2013).

The ASD child requires a structured, supportive environment without distraction and clutter to promote effective learning (Edward, 2015). According to De Clerq (2006) child with ASD require a structured routine for her or him to achieve meaningful learning hence effective accommodation in the mainstream pedagogy. Therefore, consistency is key as autistic children quickly develop fixed routines. To be accommodated by the teacher in mainstream class, a child with ASD needs to be able to anticipate and have a certain amount of control over her learning. Thus, children with Autism usually work best with a set daily schedule with little or no variance. Interestingly, children with ASD are visual learners and require visual aids to structure their day and assist them in learning (Zager et al, 2012). Use of visual aids in the mainstream class with ASD children reduce confusion and ensures predictability hence effective accommodation in the minstream. Thus, use of visual aids in the teaching of children with ASD in the mainstream class reduces stress and develops independence (De Clerq, 2006).

Due to communication difficulty in children with ASD, many educational and clinical psychologists working with ASD incorporate hand gestures and even signs in their communication to promote effective accommodation of children with ASD in mainstream pedagogy (Weber, 2013). It is imperative important for the teachers to make sure those children with ASD are highly accommodated and accepted by the learning environment through the use of hand gestures, visual aids and sign language to promote meaningful learning. To achieve meaningful teaching of children with ASD, direct method of teaching is very effective (Weber, 2013). Thus, meanings of concepts can be communicated directly by associating speech forms with action, objects, mime, gestures and situation. Indeed, teachers should demonstrate or use of gestures or visuals for effectively accommodating children with ASD to learn meaningfully in mainstream.

According to Zager et al (2012) popular approaches in the teaching of children with ASD include Applied Behaviour Analysis (ABA) and the Treatment and Education of Autistic and related Communication disorders in Childhood (TEACCH). The ABA and TEACCH approaches are based on the work of behaviorist Skinner essentially rewarding adaptive behaviors and punishing those behaviours of a child with ASD that are maladaptive. To accommodate the child with ASD, teachers need to use learning programs that encourage intense sessions of ABA therapy (Zager et al, 2012). Evidence on inclusive education shows that successful implementation of inclusive principles can lead to increase ASD children engagement in social interaction, higher levels of social support, social networks and advanced education goals compared with their counterparts in segregated settings (Chandler-Olcott & Kluth, 2009; Eldar, Talmor & Wolf-Zukerman, 2010; Vakil, O'Connor & Kline, 2009). Despite these potential benefits, the inclusion of children with ASD in the mainstream classroom can be challenging for teachers.

Challenges in the teaching of children with ASD in mainstream primary schools

Findings from international studies reveal that several mainstream schools struggle to meet the full range of needs of children with ASD in the mainstream pedagogy (Humphrey & Lewis, 2008; Humphrey & Parkinson, 2006; Leblanc et al, 2009). During the process of teaching in the mainstream pedagogy, teachers of children with ASD experienced tension in managing the challenges these learners present in social and emotional understanding (Barnes, 2009; Leach & Duffy, 2009). Such tensions include teachers' anxiety over the ability to accommodate and motivate the learning drive of ASD children while simultaneously meeting the needs of other learners in the mainstream classroom (Humphrey & Symes, 2013). Therefore, it is from this point of view that teachers' tension contributed to their poor accommodation of children with ASD in mainstream pedagogy.

Social skill deficit of children with ASD place them at risk of negative social outcomes and affect effective teaching in the mainstream pedagogy (Humphrey 2008). Children with ASD are more likely to spend their break and lunch times alone and less likely to engage in co-operative interaction with peers without special educational needs hence difficult for the teacher to motivate learners for social skills development (Humphrey & Symes, 2013). Thus, children with ASD are likely to be bullied, discriminated and stigmatized by their

counterparts thereby affecting the effective accommodation of theses children in the mainstream classroom to restore learners' self-esteem for better learning (Eldar et al., 2010). Research by Farrell etv al (2010) presents that autistic learners' communication or personal expression difficulty affected teachers' effective teaching and accommodation of children with ASD in the mainstream pedagogy. In similar vein, findings from a study by Mandina (2013) concur that some teachers confronted several communication issues including the lack of functional and verbal communication presented by autistic learners hence affected their effective accommodation and teaching of children with ASD in mainstream schools. Findings from the above researches disclosed that autistic learners' communication or personal expression difficulty was one of the challenges face by teachers in the teaching and accommodation of children with ASD in mainstream schools.

Lack of knowledge on children with ASD was another challenge faced by teachers in South Africa and Tanzania in the teaching of children with ASD in mainstream prima schools (Edward, 2015; Ntombela, 2006). Findings disclosed that regular teachers had minimum knowledge about children with ASD and were not trained to accommodate them in mainstream class. Results from international studies admitted that majority of teachers reported minimal or no training or experience regarding teaching children with ASD in the mainstream (Busby et al., 2012; De Boer & Simpson, 2009; McGregor and Campbell, 2001; Sukbunpant et al, 2013; Weber, 2013). Findings from these studies indicated that teachers were frustrated to teach children with ASD in the mainstream class due to inadequate knowledge and skills on autism. Such gaps in training can leave teachers feeling discouraged while students with ASD may miss opportunities to reach their full potential (Allen & Cowdery, 2005; Warnock, 2005; Weber, 2013;). It appears that the training they got in teacher education colleges were not directly meant to help teachers accommodate children with ASD in regular class.

Various researches present that social impairment; inattentive and hyperactive behaviors were some of the challenges in the teaching of children with ASD in a mainstream (Edward, 2015; Lindsay et al., 2013; Obrusnikova & Dillon, 2011; Wilmhurst & Brue, 2010). The results revealed that young learners with autism failed to pay attention during the lesson, to follow instructions from the teacher or classmates, failed to finish the given tasks and were easily distracted by external stimuli. Findings also disclosed that teachers experienced hyperactivity and impulsivity challenges like fidgeting, leaving her or his group or personal space (particularly during cooperative activities), blurting out answers or questions during general instruction, difficulty waiting turns in cooperative and competitive group games and interrupting others. In developed countries, children with ASD have been found to exhibit symptoms of Attention Deficit/Hyperactive Disorder (Bolte & Poustka, 2007), strong preference toward

certain sensory stimuli, over selectivity, and intense interests (Oswald et al., 2008), and deficits in one and gross motor development (Emck, Bosscher, Beek & Doreleijers, 2009). According to Soto-Chodiman et al (2012) autistic children's stereotypic utterances, physical mobility and problematic interactional behaviours disturbed the flow of the lesson in the mainstream.

According to Humphrey (2008) and Majoko (2018) accommodation and teaching of children with ASD mainstream primary schools was affected by behavioural disorders including unusual obsessions and compulsions, unusual sensory experiences and repetitive use of objects presented by learners with ASD. The findings reveal that autistic children's unusual obsessions with personal desires, objects, ideas, and sporting activities and compulsive behaviour patterns including humming, licking and sucking hampered the effective motivation, accommodation and teaching of these children with ASD in the mainstream lesson. Evidence from studies by Hinton et al (2008), Horrocks et al (2008) and by Symes and Humphrey (2010) shows that many teachers feel unprepared to support and accommodate children with ASD socially, academically, and behaviourally in mainstream pedagogy. According to Müller et al (2008) children with ASD were commonly known to withdraw from social contact, prefer social isolation, and lack the ability to establish and maintain age-appropriate relationships hence forcing teachers to fail prepare to accommodate and teach mainstream. Therefore, the above findings reflect that teachers' unpreparedness to psychologically support and accommodate autistic children was one of the challenges in the teaching of children with ASD in mainstream primary schools.

Another structural barrier mentioned by Weber (2013) involved lacking appropriate learning resources such as computer software, assistive technology, toys, cubes, objects and play center equipment for children with ASD to use during their learning. Findings indicated that lack of relevant teaching and learning materials/resources were perceived to be major challenges when in the teaching children with ASD in regular classes. Large class sizes were one of the major challenge in the teaching of children with ASD in a mainstream primary schools (Weber, 2013; Venter, 2007). The results disclosed that children with ASD were lost, received poor attention, poor assistance and made poor progress, due to the large class sizes. Although the wider research evidence support that there are a vast number of psychological skills of accommodating children with ASD in mainstream pedagogy (Edward, 2015; Hart & Malian, 2013; Zager et al, 2012; Leach and Duffy, 2009; De Clerq, 2006) and challenges in the teaching of children with ASD in mainstream schools (Edward, 2015; Humphrey and Symes, 2013; Lindsay et al., 2013; Obrusnikova and Dillon, 2011; Wilmhurst & Brue, 2010; Leblanc et al, 2009; Humphrey & Lewis, 2008), it is important for this study to critically analyse how teachers accommodate children with ASD in Reigate

district mainstream primary schools in order to establish strategies to promote effective teaching of children with ASD in mainstream schools.

Strategies to promote effective teaching of children with ASD in mainstream primary schools.

A study by Edward (2015) in Tanzania suggested that provision of regular in-service training and workshops could help many teachers gain appropriate knowledge and skills in teaching chin with ASD in different regular classes. This implies that teachers should have adequate autism-specific training for them to acquire psychological knowledge and skills to effectively accommodate and teach children with ASD in mainstream primary schools. Provision of school psychologists in Western Australian inclusive schools was recommended by Soto-Chodiman et al., (2012) as a supportive way of stabilizing teachers' perceptions in accommodating and teaching of children with ASD in regular classes. In the same vein, Simpson, de Boer-Ott and Smith-Myles (2003) suggested that small class size facilitates success to a child with ASD in mainstream primary school. Thus, there is need for reducing the class size of learners to promote effective teaching of children with ASD in mainstream primary schools. A study by Weber (2013) in Kwazulu Natal recommended for Teaching Assistants in the classroom to promote effective accommodation and teaching of children with ASD in inclusive primary schools. Thus, teachers require psychologically trained and qualified Teaching Assistants to assist with a variety of aspects in the accommodation of diverse children with ASD in mainstream primary schools.

III. METHODOLOGY

Research Approach

Based on constructivist paradigm, this study used qualitative research methodology (Creswell, 2013; Johnson & Christensen, 2014; Kivunja, 2017; Kim, 2014) to explore teachers' challenges in the teaching of infant learners with Autism Spectrum Disorders in Reigate district mainstream primary schools. The approach facilitated an understanding of the phenomenon under study from the experiences or angles of the participants (teachers and children with ASD in mainstream class) using different data collecting techniques (Adom, Yeboah and Ankrah, 2016; Mogashoa, 2014). Guided by the constructivist paradigm, qualitative approach allowed the researcher to construct meanings and the true state of the situation under the study through his personal experiences (daily participant observations and in-depth interviews) and that of the participants in the study (Adom et al, 2016; Kim, 2014) to address the research questions.

Research Design

The Ethnography research design was considered the most appropriate method to employ in this qualitative study because it provided a systematic way to generate multiple perspectives to describe the teaching and learning culture of children with Autism Spectrum Disorders (ASD) in mainstream primary schools (Johnson & Christensen, 2014; Reeves, Peller, Goldman and Kitto, 2013). O'Reilly (2009), Johnson and Christensen (2014) define ethnography design as an empirical inquiry that investigates a culture of a group of people (for instance, teachers teaching children with ASD) within their real-life context of learning in mainstream primary schools. The main focus was to understand participants in a socio-cultural context by interpreting their perspectives and experiences on the learning culture and how they accommodate children with ASD in mainstream primary schools. This qualitative study opted for ethnography research design as an action plan because it allowed a lot of primary data generation using multiple techniques to reveal attitudes, norms, practices and patterns of interaction in the teaching of children with ASD in mainstream primary schools (Atkinson, Coffey, Delamont, Lofland & Lofland, 2001; Crang & Cook, 2007).

Ethnography design allowed this study to generate participant's perspectives over patterns of learning values, behaviours, beliefs and experiences in the teaching of children with ASD (Crang & Cook, 2007; Creswell, 2009; 2013;). This design also allowed extended observations of a group of teachers teaching children with ASD in mainstream primary schools (Creswell, 2013; Johnson and Christensen, 2014; Peller et all, 2013). The main aim was to 'get inside' the way a group of teachers see the teaching and learning of children with ASD in mainstream primary schools (O'Reilly, 2009). Thus, the central aim of ethnography design in this study was to provide rich, holistic insights into teachers' world views and actions, as well as the nature of their teaching of children with ASD in mainstream primary schools. Ethnography design allowed the researcher to immerse in the day to day lives of teachers teaching children with ASD in mainstream primary schools by observing, informal conversations and interviewing them (Creswell, 2013; Reeves, 2013) in order to establish a critical analysis of how teachers accommodate children with ASD in mainstream primary schools . As a result, this design allowed the study to gain a sharpened understanding of how teachers accommodate children with ASD in Reigate district mainstream primary schools.

Ethnography research design was criticised for extensive and prolonged time in the field to collect data but themed data segmentation technique guided by sub-questions assisted the researcher to gain a sharpened understanding of the phenomenon under study and effective analysis. Another challenge of this design was involvement of unstructured data collection technique prone to cumbersome data but this was encountered by thematic data analysis method. Although this research design used in-depth and long interviews with research participants, the study used detailed data generating techniques such as observation, informal conversation, reflexivity, triangulation and member checking to explore a culture bounded group of teachers teaching children with ASD in Reigate mainstream primary schools.

Sample

The research sample was drawn from a target population of 40 teachers teaching children with ASD in mainstream and 10 Heads of primary schools teaching children with ASD in mainstream in Reigate district, Bulawayo Metropolitan province Zimbabwe. These teachers were used in this study because they experienced the accommodation and teaching of children with ASD. Primary school heads were directly involved with the supervision and monitoring of the accommodation and teaching of children with ASD in mainstream. The chosen sample was made up of 16 purposive selected teachers of children with ASD in mainstream who voluntarily responded to in-depth interviews, open-ended questionnaires and observations, and 4 primary school heads who also voluntarily participated in the interviews (Atkinson & Pugsley, 2005; Liamputtong & Ezzy 2005). Therefore, the sample size of 20 purposive participants was determined by data saturation where no new or relevant information seemed to image (Creswell, 2007; Johnson & Christensen, 2014).

Instruments

The study used in-depth interviews and open-ended questionnaires in conjunction with observations to generate data on how teachers accommodate children with ASD in Reigate district mainstream Primary Schools. The researcher of this study was the main data generating instrument to administer in-depth interviews, open-ended questionnaires and observations to the selected teachers and school heads of children with ASD in mainstream primary schools.

Data collection procedure

The researcher of this study got permission to conduct this ethnographic study from the Bulawayo Metropolitan Provincial Education Office and verbal consent from the participants before in-depth interviews in conjunction with observations and open-ended questionnaires administered. To achieve a hundred percent (100%) return of questionnaires, then researcher of this study had a follow up exercise to the respective respondents. In-depth interview sessions in conjunction with observations with selected participants were carried out at respective selected primary schools in Reigate district, by the researcher himself.

Data Analysis

In this ethnographic study, interim and thematic analysis approaches were used throughout the study for data processing. Interim analysis assisted the researcher to collect data over an extended time period until he successfully deeper understand how teachers accommodate children with ASD in Reigate district mainstream primary schools. The data generated was constantly reviewed, categorised, labelled and analysed to form themes and patterns based on sub-research questions which guided the study. The ethnographic qualitative data generated was effectively analysed through transcription, segmenting, and coding as recommended by Johnson and Christensen, (2014).

IV. RESULTS AND DISCUSSION

How do teachers accommodate children with ASD in mainstream pedagogy?

Teachers teaching children with ASD indicated that they used different aversive techniques to ensure that these autism children learn and benefit from regular classes in Reigate district. Participant observation results from these teachers reflected that teachers used punishment such as press ups, time out and call the learner to sit in front of the class in order to accommodate and control children with ASD in mainstream. Teachers acknowledged that they administered harsh and fame rebuke to infant learners with ASD in order to stop their repetitive behaviours during the lesson such arm or hand-flapping, finger-flicking, rocking, jumping, spinning or twirling and complex body movements. In order to accommodate and control children with ASD, teachers in Reigate district expressed sharp disapproval or criticism of their autistic behaviour or actions during the mainstream lesson. The following excerpts from the open-ended questionnaires confirm the above:

"In order to accommodate and control these children with ASD in mainstream, we use press ups, time out or call the learner to sit in front of the class, otherwise they will be out of control. But it does not help at all because these learners are difficult to deal with"

"Sometimes I give them a clap or always be closer to the autistic child but this often disturb and disrupts my lessons. Truly speaking, they are difficult to accommodate in the mainstream class"

"To win their attention and accommodate them, I administers harsh and fame rebuke to children with ASD in order to stop their repetitive behaviours during the lesson such hand-flapping, finger-flicking, rocking, jumping, spinning or twirling and complex body movements. However, there is no effective teaching and learning taking place on these autistic learners"

Above findings agree with the results from the interviews of primary school heads which disclosed that teachers teaching children with ASD in Reigate district used aversive stimulus such as punishment, harsh or fame rebuke and sharp disapproval or criticism of autistic behaviour or actions during the mainstream to accommodate and control children with ASD in the mainstream. This is evidenced by one of the participants who said;

"To gain control and accommodation of children with ASD in the mainstream, our teachers administer punishment or even, harsh or fame rebuke to stop autistic learners' repetitive behaviours during the lesson".

Another said;

"We always hear sharp disapprovals or criticisms of autistic behaviour or actions during their lesson as a way of accommodating and controlling children with ASD but I don't

think its an effective way of accommodating these vulnerable learners".

This implies that teachers in Reigate district lacked psychological knowledge to deal with autistic learners hence discharge poor skills of accommodating children with ASD in the mainstream primary schools. This concur with studies in developed countries which reveal that many teachers reported that they used different alternatives of aversive stimulus to ensure effective accommodation of Autism children in regular classes (Edward, 2015). However, educational stakeholders, teachers in particular, need to have a comprehensive knowledge of autism disability and be able to manage the manifested overt behaviours (Chandler et al, 2009; De Clerq, 2006; Eldar et al, 2010; Edward, 2015; Hart & Malian, 2013; Zager et al, 2012; Vakil et al, 2009).

What are the challenges affecting effective teaching of children with ASD in mainstream primary schools?

Results from open-ended questionnaire are presented in table 1 below.

Table 1 Table showing teachers' responses on the challenges affecting effective teaching of children with ASD in Reigate district mainstream primary schools

N = 16

Responses generated (challenges)	Frequency	Percentage
Lack of teaching strategies.	14	88%
Social impairments	10	63%
Child's communication or personal expression difficulty.	9	56%
Inattentive and hyperactive behaviors such as fidgeting and repetitive use of objects.	15	94%
Minimum knowledge about children with autism	16	100%
Large class sizes.	14	88%
Lack of appropriate resources.	8	50%
Lack of in-service training and lack of seminars.	16	100%

Primary school teachers and Heads disclosed that lack of teaching strategies was one of main challenges affected effective teaching of children with ASD. The results indicated that teachers lacked special needs education and psychological teaching strategies for children with ASD hence experienced tension such as anxiety in managing and accommodating children with ASD in mainstream. This concur with the findings from international studies that teaching strategies for learners with ASD was a key 'gap' in the knowledge and information base for special educational needs provision in mainstream primary schools (Humphrey & Lewis, 2008; Humphrey & Parkinson, 2006; Leblanc et al, 2009). During the process of mainstream pedagogy, teachers of learners with ASD experienced tension like anxiety in managing the challenges these children present, anxiety over the ability to accommodate and motivate the learning drive of ASD children while simultaneously meeting the needs of other learners in the mainstream classroom (Barnes, 2009; Humphrey & Symes, 2013; Leach & Duffy, 2009).

The study shows that Autistic learner's social impairment such as difficult to cooperate with others was another teachers' challenge in the teaching of children with ASD in mainstream. The results revealed that social skill deficit of learners with ASD placed them at risk of negative social outcomes affected effective teaching of children with ASD in an inclusive classroom. This concurs with the findings from various studies which discovered that social impairment was one of the major challenges in the teaching of children with ASD in mainstream classes (Edward, 2015; Humphrey 2008; Obrusnikova & Dillon, 2011). In the same vein, Humphrey and Symes (2013) advocated that children with ASD are more likely to spend their times alone and less likely to engage in co-operative interaction with peers without special needs hence difficult for the teacher to effectively motivate, accommodate and teach them in mainstream class.

The study disclosed that ASD learners' communication or personal expression difficulty affected primary school teachers teaching of children with ASD in mainstream. The results indicated that teachers confronted several communication issues including the lack of functional and verbal communication presented by children with ASD hence affected their effective teaching in a mainstream class. This concur with the findings from a studies by Mandina (2013) and Farrell et al (2010) that ASD learners' communication or personal expression difficulty was one of the major challenges faced by teachers in the teaching of children with ASD in the mainstream pedagogy.

The study also revealed that inattentive and hyperactive behaviors were some of the main teachers' challenges in the teaching of children with ASD. Thus, autistic children's' behavioural disorders such as fidgeting, unusual obsessions and compulsions and repetitive use of objects disturbed and distracted teachers' effective teaching of children with ASD in mainstream primary schools. This concur with the findings from Obrusnikova and Dillon (2011) that inattentive and hyperactive behaviors affected the effective teaching of children with ASD in a mainstream. In similar situation teaching challenges associated with hyperactivity (such as fidgeting and running around in the classroom) and impulsivity (such as blurting out answers or questions during general instruction, difficulty waiting turns in cooperative and competitive group games, and interrupting others) were noted by the teachers in the teaching of children with ASD in mainstream classes (Edward, 2015; Obrusnikova & Dillon, 2011). Some behavioural disorders including unusual obsessions and compulsions, unusual sensory experiences and repetitive use of objects presented by learners with ASD hindered the effective motivation and teaching of children with ASD in mainstream schools (Humphrey, 2008; Majoko, 2018).

The study revealed that teachers had minimum knowledge about children with autism hence affected their effective teaching of children with ASD. The findings disclosed that most of the teachers had minimum psychological and special needs skills and knowledge about children with ASD. This concur with the results from the study by Edward (2015) in Tanzania who revealed that most of the primary school teachers had minimum knowledge about children with autism. Findings from Sukbunpant et al (2013) and Busby et al., (2012) reiterated that regular class teachers had low knowledge regarding the teaching of children with ASD in a mainstream class. Thus, teachers' lack of knowledge and skills was one of the challenges in the teaching of children with ASD in mainstream classrooms (Ntombela, 2006; Weber, 2013).

The study also revealed that large class sizes was another challenge experienced by the teachers in the teaching of children with ASD in primary schools. Participants disclosed that their classes were overcrowded with children of varying learning abilities including autism learning disability hence difficult to accommodate and teach children with ASD in the mainstream. This concur with the results from studies in South Africa that large class sizes was one of the major challenge in the teaching of children with ASD in a mainstream schools(Venter, 2007; Weber, 2013). The researchers indicated that the mainstream classrooms in South Africa were overcrowded with children of varied abilities particularly autism learning disability resulted in poor accommodation and teaching of children with ASD.

Findings from the study disclosed that lack of appropriate resources was another main teachers' challenge in the teaching of learners with ASD. Results indicated that unavailability of appropriate resources (such as financial resources, access to training opportunities, funding for an Teaching Assistant) and equipment (such as computers, assistive technology, toys, cubes, objects and play center equipment) for children with ASD to use during their learning affected effective pedagogy of children with ASD in mainstream. This concur with the results from a study by Weber (2013) that scarce of appropriate resources (such as financial resources) and teaching or learning materials affected the teaching of children with ASD.

The results from the study revealed that lack of in-service training and seminars or workshops affected teachers' the teaching of children with ASD in mainstream. The participants indicated that lack of in-service training, seminars, staff developments and workshops on how to deal with ASD were perceived some of major challenges in the teaching of children with ASD in regular classes. This concur with the findings from the study in Tanzania that lack of in-service training and seminars affected the teaching of children with ASD in regular classes Edward (2015). Results revealed that majority of Tanzanian primary teachers complained that they were not trained, in-serviced and developed to accommodate children with ASD in an inclusive pedagogy.

The above challenges (lack of teaching strategies, social impairments, child's communication or personal expression difficulty, inattentive and hyperactive behaviors such as fidgeting and repetitive use of objects, minimum knowledge about children with autism, large class sizes, lack of appropriate resources, lack of in-service training and lack of seminars) faced by teachers in the teaching of children with ASD in Reigate district mainstream primary schools were based on social ecological system as prescribed by psychological perspectives of Bronfenbrenner's theoretical framework (Donald et al, 2010; Stephens, 2018). These challenges originated from the Zimbabwean primary schools' ecological system with surrounding elements such as mainstream class, large class sizes, insufficient learning resources, teachers without psychological knowledge and skills to deal with ASD (Scott-Croff, 2017; Mann, 2013). Therefore, Reigate district teachers' surroundings (including mainstream class, children with ASD, level and variance of ASD, curriculum, work, class size, learning resources and classroom environment) had an influence on their challenges in accommodating and teaching children with ASD (Donald et al, 2010; Mann, 2013; Scott-Croff, 2017; Stephens, 2018). According to Bronfenbrenner's social ecological system theory, Reigate district teacher's challenges in the teaching and accommodation of children with ASD in mainstream primary schools occurred within an interactive system of nested influences in the mainstream school system (Chataika, 2007; Donald et al, 2010; Predescu et al, 2018; Scott-Croff, 2017; Stephens, 2018;).

Psychologically, challenges faced by teachers in the accommodation and teaching of children with ASD germinated from the interconnectedness and interdependence of elements (such as teachers, children with ASD, mainstream peers, buildings, benches, objects in classroom and learning resources) that form the social ecological system of Teachers and children with ASD in mainstream primary schools (Scott-Croff, 2017; Stephens, 2018). Thus, generated gaps in these elements (between the teacher and children with ASD in mainstream primary school system) reflected a short circuit (teachers' challenges to accommodate and effectively teach children with ASD in mainstream primary schools) (Chataika, 2007; Chinyoka, 2013).

V. CONCLUSION AND RECOMMENDATIONS

The study concluded that teachers used aversive stimulus such as punishment, harsh or fame rebuke and sharp disapproval or criticism of autistic behaviors or actions during the lesson as a way of accommodating and controlling infant learners with ASD in the mainstream. The results also concluded that lack of teaching strategies, social impairments, child's communication or personal expression difficulty, inattentive and hyperactive behaviors such as fidgeting and repetitive use of objects, minimum knowledge about children with autism, large class sizes, lack of appropriate resources, lack of in-service training and lack of seminars were challenges faced in the teaching of children with ASD in Reigate district

mainstream primary schools. The study recommended that there is need for the Ministry of Primary and Secondary Education to ensure that teachers are adequately trained, developed and assisted to obtain the highest qualifications and skills possible in the effective teaching of children with ASD in mainstream primary schools, to ensure that there is a provision of school psychologists in inclusive schools as a supportive way of stabilizing teachers' perceptions in teaching of children with ASD in regular classes, and to ensure that all mainstream primary schools need to emphasize the use of Teaching Assistants in the classroom to promote effective teaching of infant learners with ASD in inclusive primary schools.

VI. RECOMMENDATIONS FOR FURTHER STUDY

The study recommended that a more comprehensive study on how teachers accommodate children with Autism Spectrum Disorders in mainstream primary schools should be executed nationally to establish mitigations to address the challenges in the teaching of learners with ASD in the mainstream in Zimbabwe. The study further recommended that Autism Spectrum Disorder pedagogy model, as a teaching device, should be researched and designed to promote effective teaching of children with ASD in mainstream primary schools.

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