Challenges Encountered by Teachers in Supporting Children with Autism in Primary Schools in Tanzania

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Abstract

This paper reports the challenges experienced by teachers in supporting children with autism (CA) in primary schools in Tanzania. It is a qualitative study that employed purposive sampling technique to select seven primary school teachers of CA from two schools. Data were collected using a semi-structured interview and were analysed thematically. The findings of the study revealed that teachers experience challenges when supporting CA due to inadequate knowledge in managing the behaviours of CA. Also, teachers received little collaboration from parents of CA due to a lack of commitment to the education of their CA. The paper recommends for continuous professional development training to teachers of CA to enhance the acquisition of updated knowledge and skills for supporting CA. Also, there is a need for effective collaboration between teachers and parents for the successful support of CA.

Keywords: autism, collaboration, special units, teachers 'knowledge

Introduction

Supporting children with autism (CA) in developing daily living skills at schools is one of the vital roles of teachers. United Nations [UN] (2007) defines autism as a lifelong developmental disability that manifests itself during the first three years of life resulting from a neurological disorder that affects the functioning of the brain. It is marked by the presence of impaired development in social interaction, communication abilities, and repetitive or rigid behaviours (Hallahan et al., 2012; Manji & Hogan, 2013; UN, 2007). It requires knowledgeable and committed teachers to provide effective assistance to CA due to diverse need among them. The disparity in developmental features makes it a challenge to teachers when supporting children with autism. Globally, the prevalence of autism is increasing exponentially as from 2006 to 2022 the rate has increased from 1:500 to 1:100 respectively (William, 2006; World Health Organisation [WHO], 2023).

This trend is attributed to professional and parental awareness, improved screening and identification, and the growth of professional organisations advocating services for children with autism (Obrusnikova & Dillon, 2011).

The magnitude of CA has led to a significant increase of such children in schools leading to a need for teachers with appropriate knowledge and skills to accommodate the needs of CA (Busby et al., 2012; Murray, 2015). Despite the increased number of CA in schools, teachers and schools in Alabama-USA seem to be unprepared to address their needs because teaching CA effectively requires highly trained teachers in which a regular classroom teacher seems not to have the specialised skills needed to address the needs of CA (Busby et al., 2012). Moreover, the professional knowledge base of teachers and their experiences of accommodating the needs of CA in some areas like Ontario and Toronto in Canada is not known due to the paucity of studies (Lindsay, 2013; Sally et al., 2013).

Supporting CA seems to be a challenging aspect among teachers due to the variation of symptoms, severity, and combination of impairments among CA (Alberta Learning, 2003; Busby et al., 2012; McDougal et al., 2020). Such variations make it a trick for teachers to fully understand and relate to CA (Blacher et al., 2014; Manti et al., 2013; Murray, 2015). This calls for specialized and flexible teachers to adapt the curriculum or modify activities to suit the needs of CA (Busy et al., 2012; McDougal et al., 2020).

In Tanzania, the number of CA in pre-primary and primary schools has been increasing within the past six years **from 1108 pupils in 2016** to 2237 in 2021 (Ministry of Education, Science and Technology [MoEST], 2016; 2021). The circumstance requires proper efforts to make sure teachers have the appropriate knowledge and skills to support CA in developing adaptive skills for them to become independent in their life.

Correspondingly, the curriculum for certificate for teacher education in special needs in Tanzania identifies three categories of disabilities that prospective teachers are supposed to specialise such as blind, deaf and intellectual impaired (II) including autism (Tanzania Institute of Education [TIE], 2019). This means that teachers in intellectual impaired are expected to be trained in handling both pupils with II and those with autism regardless of their variations in needs. From this context, the question of whether the prospective teachers of the identified category are being equipped with adequate knowledge and skills for supporting CA has been a matter of interest.

In addition, the curriculum directs prospective teachers in II and autism to attend sixteen (16) lessons per week; out of which twelve (12) lessons focus on

accommodating children with II and the remaining four (4) focus on CA (TIE, 2019). This implies that prospective teachers are guided to attend more lessons on II than those on autism. Variation in lessons suggests that prospective teachers are mostly focusing on supporting pupils with II rather than pupils with autism. Effective support to CA requires skillful teachers in modifying curriculum, preparing Individualised Education Plan (IEP) and addressing challenging behaviours of CA; however, the allocated number of lessons to autism seems to be insufficient for prospective teachers to become conversant with the demands of CA. The situation is likely to pose challenges in ensuring successful support to CA in schools. This paper was set out to explore challenges experienced by teachers for proper intervention can be directed to addressing the challenging situations for the betterment of CA.

Tungaraza (2014) reports on the great challenge of training enough teachers for children with special needs in Tanzania attributed to limited special needs teachers' training colleges. Also, teachers reported shifting from the field of special needs education to other fields due to lack of support and motivation in teaching children with special needs. All these might lead to an inadequate number of special needs education teachers including autism in Tanzanian schools. Similarly, Tungaraza (2014) reports that inadequately trained tutors and insufficient teaching and learning materials are some of the challenges prospective teachers are experiencing in special needs teachers' training colleges in Tanzania. These might impede training those teachers; hence graduating with insufficient professional knowledge and skills to support CA effectively.

Inadequate teachers training might impede teachers of CA in developing social interaction with CA as Blacher et al. (2014) put it clear that; inadequate knowledge about autistic mannerisms may affect teachers' ability to develop social interaction with CA hence leaving them at a greater risk of behavioural problems such as bullying, which may influence school dropout. In addition, teachers' confidence in supporting CA is likely to be affected by a failure in understanding and managing behaviours of CA, limited knowledge in developing an individualised education plan, lack of appropriate resources, limited time to collaborate with parents and large size of classes (Busby et al., 2012; Lindsay et al., 2013; McDougal et al., 2020). Therefore, for teachers of CA to work effectively, they need to be equipped with relevant knowledge and skills and accompanied by adequate resources.

Education plays a vital role in enhancing CA to learn socialisation, adaptive skills and communication (Manti et al., 2013); thus, sufficient knowledge and skills among teachers become an important factor for them to be in a better position of supporting CA effectively. Moreover, collaboration among teachers and parents of CA is fundamental to adequate education of CA (Busby et al., 2012; McDougal

et al., 2020). Teachers of CA have to work in partnership with parents of CA to ensure consistency between support being provided to CA at school and home environment. This is likely to foster improvement in CA; to ensure effective implementation of education programs for CA, teachers of CA are supposed to be competent in making collaboration with parents of CA (Alberta Learning, 2003; Busby et al., 2012).

Despite the increasing number of CA in recent years in Tanzanian primary schools, much is not known about the challenges encountered by teachers when supporting children with autism in primary schools in Tanzania. This necessitated the researchers to conduct the current study, which investigates the challenges facing teachers in supporting CA in Tanzania's special units placed in primary schools.

Purpose

The purpose of this study was to explore challenges teachers encounter in supporting CA in special units placed in Tanzanian primary schools.

The study was guided by two key questions:

- i. What challenges do teachers face in supporting CA in schools?
- ii. What challenges do teachers face in making collaboration with parents of CA?

Literature Review

Teachers' experiences with CA vary from one context to another depending on the availability of teaching and learning materials, the presence of ongoing in-service training and support from the government and school administrators. Studies conducted in England and Canada revealed that teachers experienced challenges in understanding, addressing autistic characteristics and identifying environmental factors that lead to anxiety among CA (Cook and Ogden, 2021; Sally et al., 2013). In addition, teachers seemed to experience inadequate resources in supporting CA consequently hindering the provision of effective support to CA in classrooms.

Furthermore, the study conducted in the United States by Busby et al. (2012); Obrusnikova and Dillon (2011) revealed that teachers face challenges in controlling inattentive and hyperactive behaviours of CA. Such challenges limit teachers in supporting CA to follow instructions; understand what they teach hence spending more time controlling such behaviours while teaching. Moreover, in Alabama-USA, Busby et al. (2012) found teachers reported making collaboration with parents of CA and preparing individualized education plans as challenges in teaching CA as they require extra time for teachers to fulfill such roles. This implies, proper

training on managing behaviours of CA and establishing effective collaboration with parents of CA are highly needed for teachers to provide desirable support to CA.

Additionally, the study conducted in South Africa by Numisi et al. (2020) found that teachers do experience challenges in collaborating with parents of CA because parents were not committed to the education of their CA, and they were unable to fulfill the parental role to their children and they held unrealistic expectation on them. Such findings suggest that parents had a limited understanding of ways of supporting their CA and the benefit of collaborating with teachers for the betterment of their CA. Also, a lack of commitment to the education of their CA is likely to affect teachers' commitment to support CA. So there is a need for teachers to be trained in ensuring effective team working with parents of CA for desirable results.

The findings from the study conducted by Edward (2015) in Tanzania revealed that teachers of inclusive schools indicated poor pre-service training on autism, lack of in-service training, limited time to include CA, lack of relevant teaching and learning materials and lack of cooperation with parents of CA as challenges in effective inclusion of CA in the learning process. This implies that teachers in inclusive schools need in-service training on effective inclusion of CA during teaching and learning and maintaining collaboration with parents of CA.

Studies on challenges encountered by teachers in supporting CA in special units are scarce. Moreover, most studies on the experience of teachers in teaching CA have focused on teaching them in inclusive classes (Cook and Ogden, 2021; Edward, 2015; Lindsay et al., 2013; McDougal et al., 2020; Obrusnikova& Dillon, 2011; Sally et al., 2013) and not in special needs education units. Therefore, this paper intended to fill the gap by exploring challenges facing teachers in supporting CA in special needs education units placed in Tanzania primary schools.

Methodology

This is a qualitative study that employed phenomenological design, which focused on describing and interpreting teachers' lived experiences in supporting CA. This design was considered appropriate because it enabled the researchers to inquire about the lived challenges experienced by teachers supporting CA. The study involved two special education units dealing with CA; one was attached to a public primary school and the other one to a private primary school. The diverse experiences of teachers in supporting the CA in the two institutions provided the researchers with rich information required for a clear understanding of the challenges encountered by teachers. Purposive sampling was used to select seven teachers, two from the government unit and five teachers from the private unit who participated in the study. All teachers who participated in this study had more

than two years of working experience. Their experiences were significant for the study. They provided in-depth information related to the study.

A semi-structured interview was used to collect information from the teachers. The researchers used an interview guideline which helped to have consistency in exploring teachers' challenges in supporting CA. Interview sessions ranged between 23-44 minutes. Interviews were conducted at the school premises, in which the researcher requested a private room from the school administration to ensure participants were free to share their experiences without fear of being heard by other people.

Research ethical issues have been adhered to; before going to the field, the researchers obtained research clearance from the University of Dar es Salaam and a research permit from relevant authorities for fieldwork. Furthermore, before the interview sessions, participants were informed of the purpose of the study to obtain their consent to be involved in the study. To ensure the anonymity of both participants and study areas, letters were used to identify schools, in which letter A represents the government school and letter B represents the private school. Numbers were used to represent teachers instead of using their actual names.

Data were analysed inductively using a thematic analysis approach. The approach seemed to be appropriate in this study because it provided the researcher with accessible and systematic procedures for generating codes and themes from the collected data. The researchers familiarised with the collected data by reading and re-reading transcriptions while coding features of data which seemed to be meaningfully related to research questions (Braun & Clarke, 2006; Clarke & Braun, 2017). The themes that revealed challenges that teachers encountered in supporting CA were further analysed to come up with two groups of themes, namely challenges associated with meeting the demands of CA and those related to collaboration with parents of CA.

Findings and Discussion

Demographic characteristics of participants

The study involved seven female teachers; whereby two teachers were selected from a government school, and five teachers from a private school. All teachers were females. This can be attributed to the view that male teachers often hold negative attitudes towards CA (Victor, 2020). A negative attitude is likely to impede male teachers' tolerance and persistence when encountering challenges in supporting CA. Hence it makes it possible for them to shift from special education units to ordinary schools.

Moreover, all teachers had a background in special needs education, two of them

were certificate holders and five were diploma holders. Therefore, all teachers involved in this study were qualified to teach CA.

This study was guided by the following two questions: i. What challenges do teachers face in supporting CA in schools? ii. What challenges do teachers face when collaborating with parents of CA? The findings are presented in the following themes and subthemes

Challenges in meeting the demands of children with autism

Meeting the demands of CA requires teachers with adequate knowledge, skills and materials to support children in realising their full potential. This study has found that teachers of CA face two main challenges in meeting the demands of CA. These challenges are insufficient knowledge of autism and inadequate financial and material resources.

Insufficient knowledge of autism among teachers as a challenge in meeting the demands of the CA

Study findings have revealed that teachers of CA were facing challenges in meeting the demands of CA due to insufficient knowledge. Despite having a background in special needs education; teachers reported having insufficient knowledge to effectively support CA. This was further insisted by teacher 1 from school A, who reported:

The knowledge I have is not sufficient to ensure effective support to CA; sometimes I fail to understand what to do when the child shows destructive behaviours... We are not trained on how to assist children with autism in this institution. What we normally do when we encounter difficulties is to ask teachers from another school on how they handle a similar situation (School A, Teacher I).

The quotation above indicated that insufficient knowledge among teachers limits their efficiency in meeting the demands of CA.

Findings portrayed insufficient knowledge among teachers of CA as the impact of limited in-service training. Teacher II from school A supported this by saying, "Teaching techniques are changing often, but you can imagine, it was since 2012 when I attended the last training. So, we teach using old techniques. This may lead to delaying improvement to CA". This quote suggests that teachers of CA have not acquired updated knowledge and skills for supporting CA, which implies there is no in-service training provided to these teachers. Moreover, delays in progress of CA were associated with teachers using irrelevant and old techniques.

Moreover, the findings indicated that another factor associated with insufficient knowledge on autism among teachers of CA was inadequate training in autism during teacher training education. To support it here is what teacher II from school A explained:

I pursued a diploma in special needs education. However, at that time we learned more about intellectual impairment and very little about autism. Even during teaching practice, I never came across CA. Hence, I was not aware of how they looked like and their specific needs. This became a challenge to me to teach CA after reporting here as it was my first time to meet with them. So, I had to learn from experienced teachers what to do in supporting CA (School A, Teacher II).

The interview extract portrays those teachers in special needs education graduate with insufficient knowledge of autism. This has been attributed to little content in autism compared to other disabilities and lack of practical training to students with autism. Limited knowledge and awareness of CA limited teachers from supporting CA effectively.

The current findings concur with those of Cook and Ogden (2021) and Sally et al. (2013) who reported that teachers of CA are likely to face challenges in understanding and addressing autistic characteristics of learners due to limited knowledge of autism. Moreover, such finding concurs with those of the previous study by Tungaraza (2014) and Edward (2015) who found that improper training is a challenge that impedes special needs education teachers in teaching children with special needs including CA. Such findings suggest there is a need for ongoing in-service training for teachers of CA to equip them with relevant knowledge and techniques for addressing needs of learners with autism.

Inadequate financial and material resources as challen ges in meeting the demands of CA

The findings of this study have revealed insufficient financial and material resources in supporting CA as another challenge faced by teachers of CA. Teachers have reported to have been encountering financial challenges in visiting CA at their homes. According to the school timetable, teachers of CA are supposed to home visit learners with autism once per week. Teachers portrayed performing such role as challenging because they did not have financial support. A similar view was explained by teacher I from school A who said, "... visiting CA at their home is a challenging task; apart from adding roles to us, no one is responsible for expenses we incur to visit those children. I normally use my own money for transport costs..."

(School A, Teacher I).

Such finding portrays teachers of CA were experiencing a financial burden related to visiting CA at their home premises. Such task seems to be a burden to teachers because there was no transport allowance to facilitate them in fulfilling the mentioned task. So, in order to support CA by visiting them at home, there is a need to ensure teachers of CA are provided with transport allowance so as to avoid financial burden to them.

In addition to that, the findings revealed that; teachers reported experiencing insufficient teaching and learning materials in supporting CA. This was narrated by teacher IV from school B who commented:

CA requires an individualized education plan in which teaching and learning materials differ from one learner to another. This becomes a challenge for the unit which deals with CA to afford purchasing materials needed by each learner; hence we end up using the available ones regardless of their relevance (School B, Teacher IV).

From that extract, it is shown that inadequate teaching and learning materials affect teachers in supporting CA. Moreover, it has been reported that school administrations fail to meet the expenses of such materials; hence, this limits teachers to using relevant materials based on the needs of the CA.

Such findings concur with that of McDouglas et al. (2020), Numisi et al. (2020) and Sally et al. (2013), who found that the support from the government and relevant institutions was insufficient for teachers to have adequate resources to meet demands of CA. This implies; sufficient resources are needed for teachers of CA to effectively perform their roles of supporting CA.

Receiving Limited Collaboration with Parents of Children with Autism

Findings indicate that teachers of CA viewed establishing effective collaboration with parents of CA as a challenge. Teachers of CA reported to have been experiencing limited cooperation from parents of CA. This was narrated by teacher IV from school B:

Parents are not cooperative in supporting their CA... Some are reluctant in putting into practice what we recommend for their children. Even if we direct them on types of food which are recommended and not recommended to their children; some parents ignore it as a result they

end up activating hyperactive behaviours hence demoralising teachers' efforts in supporting their CA (School B, Teacher IV).

Such extract indicates teachers of CA received limited collaboration with parents of CA because they pay no attention to directives from teachers. Such a trend seems to discourage teachers' efforts to support CA as they noticed deterioration in CA after staying with their parents for a while.

Moreover, the finding reveals that limited collaboration received by teachers from parents of CA hinders the implementation of education plan for children with autism, as the following quotation demonstrates:

Parents are a great source of challenge in implementing education plans for their children; if a child is not getting proper treatment at home, the expected goals will not be achieved. For example, in toilet training at school, we discourage the use of pampers and potty, so we send a child to the toilet after some minutes, and we do insist parents to do the same at home. Unfortunately, some parents do not obey; as a result they assist their children with toilet potty and pamper. These inconsistencies hinder the achievement of the expected objectives as planned (School B, Teacher III).

The quotation implies teachers of CA face challenges in meeting the intended objectives because of discrepancies between the practices of CA at school and the way parents treat them at home. Therefore the achievement of the intended objectives requires effective collaboration among teachers and parents of CA to ensure consistency in the support provided by teachers and parents at home.

Moreover, teachers reported limited knowledge of autism among parents of CA as a factor associated with ineffective collaboration between parents of CA and teachers. Teachers revealed experiencing effective teamwork and commitment from parents who were aware of the effective ways of supporting their CA. As teacher II from school B claimed:

Few parents are aware of the needs of their children. Such parents are cooperative and committed to implementing what is being directed to them by the teacher. The outcome is always improvement of their children unlike children of parents with a lack of knowledge on requirements of their CA (School A, Teacher II).

Such extract reveals that there was an effective collaboration between teachers and few parents of CA who seemed to be aware of the needs of their children.

In addition to that, the finding portrays such parents played an active role in implementing directives from teachers.

The findings of this study concur with those of the previous studies by Numisi et al. (2020) and Busby et al. (2012) which reported teachers of CA face challenges in collaborating with parents due to parents' limited knowledge of autism and lack of commitment to the education of their CA. Such findings portray that insufficient collaboration between parents and teachers of CA may lead to delays in improvements among CA.

Conclusions

The findings of this study suggest that teachers of CA play a vital role in supporting children to become independent in their life but their efforts and commitment seem to be limited because of insufficient knowledge and resources to meet the demands of CA. The unique characteristics and demands of CA call for teachers with well-equipped knowledge to develop individualised education plans together with adequate resources to meet the planned objectives per CA. In addition, teachers receive little collaboration from parents of CA; this becomes a barrier to teachers in supporting CA. Most of teachers reported collaboration with parents of CA is fundamental in implementing education plan to CA; but it requires knowledgeable and committed parents to work hand in hand with teachers for the betterment of CA. The approach ensures consistency in support provided to CA while granting a room for feedback to both teachers and parents.

Recommendations

Based on the findings, the study recommends that it is essential to ensure teachers of CA are well-equipped with adequate knowledge, skills and resources in supporting CA. This can be implemented by the Ministry of Education, Science and Technology, local government authorities and school administrations through organizing ongoing in-service training, and provision of fund for purchasingteaching and learning materials and fixing other requirements of CA. Such endeavor may increase teachers' morale and commitment to continue supporting CA. Moreover, the study recommends the need for effective collaboration between teachers and parents of CA for successful support of CA. This can be addressed by school authorities through organising seminars and workshops for teachers and parents of CA to understand autism disorder, needs of CA and techniques of supporting CA. Furthermore, this study recommends to the Tanzanian Institute of Education to review the curriculum of special needs education and consider the need to separate intellectual impairment and autism into two different categories of specialisations.

This will enable the prospective teachers of autism to acquire more proper professional techniques for supporting CA during teaching and learning processes.

References

- Alberta Learning (2003). *Teaching a Child with Autism Spectrum Disorder*. Alberta https://files.eric.ed.gov/fulltext/ED491496.pdf
- Blacher, J., Howell, E., Lauderclale-Littin, S., Reed, F., &Laugesson, E. (2014). Autism spectrum disorder and the student-teacher relationship. A comparison study with peers with intellectual disability and typical development. *Research in Autism Spectrum Disorders*, 8, 324-333. https://files.eric.ed.gov/fulltext/ED585800.pdf
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. http://dx.doi.org/10.1191/1478088706qp063oa
- Busby, R., Ingram, R., Bowron R., Oliver, J., & Lyons, B. (2012). Teaching elementary children with autism: Addressing teacher challenges and preparation needs. *Rural Educators*, 32 (2), 27-35. https://files.eric.ed.gov/fulltext/EJ987618.pdf
- Clarke, V. & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297-298. https://doi.org/10.1080/17439760.2016.1262613
- Cook, A. & Ogden, J. (2021). Challenges, strategies and self-efficacy of teachers supporting autistic pupils in contrasting school settings: A qualitative study. *European Journal of Special Needs Education*, 3(37), 371-385. https://doi.org/10.1080/08856257.2021.1878659
- Edward, G. (2015). Teachers' knowledge and perceived challenges of teaching children with autism in Tanzanian regular primary schools. *International Journal of Academic Research and Reflection*, 3(5), 36-47.
- Hallahan, D., Kauffman, J. & Pullen, P. (2012). *Exceptional learners: An Introduction to Special Education 12th ed.* Pearson
- Lindsay, S., Proulx, M., Thomson, N. & Scott, H. (2013). Educators' challenges of including children with autism spectrum disorder in mainstream classrooms. *International Journal of Disability, Development and Education*, 60(4), 347-362. https://doi.org/10.1080/1034912X.2013.846470
- Manji, K. P. & Hogan, M. N. (2013). Identifying gaps in knowledge, prevalence and care of children with autism spectrum disorder in Tanzania. *Tanzania Medical Journal*, 26(2), 6-17. https://doi.org/10.4314/tmj.v26i2.3

- Manti, E., Scholte, E. & Van Berckelaer-Onnes, I. (2013). Exploration of teaching strategies that stimulate the growth of academic skills of children with ASD in special education school. *European Journal of Special Needs Education*, 28(1), 64-77. http://dx.doi.org/10.1080/08856257.2012.743729
- McDougal, E., Riby, D., & Hanley, M., (2020). Teachers' insights into the barriers and facilitators of learning in autism. *Research in Autism Spectrum Disorder*, 79, 101674. https://doi.org/10.1016/j.rasd.2020.101674
- Ministry of Education Science and Technology (2016). *National Basic Statistics in Tanzania (BEST)*.https://www.tamisemi.go.tz/storage/app/media/uploaded files/BEMIS ABSTRACT%202017%20-%2008-05-2018.pdf
- Ministry of Education Science and Technology (2021). *National Basic Statistics* in Tanzania (BEST). National Data
- Murray, J. (2015). Practical strategies for students with Autism Spectrum Disorder: A review of the literature. *Journal of Graduate Studies in Education*, 7(2), 68 75. https://files.eric.ed.gov/fulltext/EJ1230708.pdf
- Numisi, S., Themane, M., Nel, K., & Govender, I. (2020). Parent-teacher collaboration in children with Autism Spectrum Disorder in Limpopo Province, South Africa. *Journal of Human Ecology* 69, (1-3), 117-126. https://repository.up.ac.za/handle/2263/81120?show=full
- Obrusnikova, I.& Dillon, S. R. (2011). Challenging situations when teaching children with autism spectrum disorder in general physical education. *Adapted Physical Activity Quarterly* 28, 113-131. https://doi.org/10.1123/apaq.28.2.113
- Sally, L., Meghann, P., Nicole, T.& Helen, S. (2013). Educators' challenges of including children with autism spectrum disorder in mainstream classrooms. *International Journal of Disability, Development and Education*, 60(4), 347-362. http://dx.doi.org/10.1080/1034912X.2013.846470
- Tanzania Institute of Education (2019). *Curriculum for Certificate for Teacher Education in Special Needs*. https://www.youscholars.com/curriculum-for-certificate-for teacher-education-in-special needs-tanzania/
- Tungaraza, F. D. (2014). Training teachers in special needs education in Tanzania. a long and challenging ordeal to inclusion. *Journal of the Open University of Tanzania*, 16, 49-60. https://www.ajol.info/index.php/huria/article/view/108739/98534
- United Nations (2007). Resolution Adopted by the General Assembly on 18 December 2007. http://archive.ipu.org/idd-e/a-62-296.pdf

- Victor, E. W. (2020). Attitude of teachers towards pupils with Autism Spectrum Disorders (ASD) in selected primary schools in River state, Nigeria. *European Journal of Education Studies*, 6(10), 286-305. https://doi.org/10.5281/zenodo.3653336
- World Health Organisation (2023). Autism Spectrum Disorders. https://www.who.int/news room/fact sheets/detail/autism spectrum-disorders
- Williams, J. G. (2006). Systematic review of prevalence studies of autism spectrum disorders. *Archives of Disease in Childhood*, 91(1), 8–15. https://doi.org/10.1136/adc.2004.062083