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Abstract

The article presents findings of a qualitative study on primary school teachers' knowledge and perception on inclusion of pupils with moderate deaf-blindness in regular education classrooms in Tanzania. Twenty-eight classroom teachers and eight pupils with moderate deaf-blindness from four inclusive public primary schools participated in semi-structured interviews, classroom observations and post-observation interviews. The findings indicated that teachers had limited knowledge over the learning needs of the pupils with deaf-blindness. They were unable to tell the communication needs, environmental adaptations and technological assistive devices in responding to their diverse needs. Although a few primary school teachers were able to mention some learning needs for deafness or blindness on categorical basis, deaf-blindness were not being attended. It was also found that most primary school teachers had medical-pathological view over these pupils, which means they did not provide appropriate instructional support. However, a few primary school teachers regarded inclusion as a basic right to education for all, and these teachers were enthusiastic on and committed to instruct all pupils notwithstanding the individual differences. It was also revealed that pupils with moderate deaf-blindness felt as less valued due to some apparent segregative behaviours manifested during classroom instructions. The study, therefore, recommends the training for teachers' that would focus on changing the teachers' negative perception over the inclusion of pupils with moderate deaf-blindness in regular or inclusive classrooms.

Background

The importance of inclusive education (IE) is globally acknowledged as a strategy to in achieving the education for all (EFA) on a non-discriminatory basis (Haug, 2017; Sánchez, Haro-Rodríguez, & Martínez, 2019; United Nations Education, Scientific and Cultural Organisation (UNESCO) of 2015. In the present study, the term '*inclusion*' has been used to mean placing the pupils with disabilities and enabling them to learn in regular or inclusive education classrooms, receiving appropriate and meaningful instructional support with significant modifications of the curriculum that aims to cater for their diverse needs (UNESCO, 2017). The philosophy of inclusion is grounded on the Universal Declaration of Human Rights (UDHR) of 1948; the Jomtien World Declaration on Education for All (EFA) of 1990; the Salamanca Statement on Special Needs Education of 1994, Dakar World Education Conference of 2000; the United Nations Convention on the Rights of the Child of 1989 and the United Nations Convention on the Rights of the Persons with Disabilities (UNCPRD) of 2006, which state that IE is a basic human right.

The Tanzanian Government ratified the 1994 Salamanca Statement of Action, which emphasises on the need to provide children with special needs basic education, and sees this as an indispensable step to reach the goals set at the first Education for All Conference in Jomtien 1990. The government, as an exponent of EFA in its Education Act (1978); the Education and Training Policy (ETP) of 2014; Education Sector Development Programmes (ESDP, 2008-2016, 2016/17-2020/21); and Primary Education Development Plan III (PEDP, 2012-2017), reaffirmed the right to education for all notwithstanding the individual differences. Correspondingly, the Ministry of Education Science and Technology (MoEST) reintroduced the National Strategy for Inclusive Education (2018-2021) that aimed at providing equitable access to quality education for all children, youth and adults, including vulnerable ones to enable them to acquire knowledge and skills to contribute to Tanzania's attainment of middle-income status by 2025 (MoEST, 2018a).

The National Strategy for IE also sought to identify and remove barriers inhibiting the presence, learning, participation and progress of all children (MoEVT, 2009). However, pupils who are both deaf and blind still face barriers of accessing education nine years after this Strategy was implemented (Kisanga, 2017; Kisanga & Richards, 2018). One of the barriers is the teachers' negative perception over pupils with disabilities which discriminates and excludes them from equally accessing education

(Cosmas, 2016; HakiElimu, 2018; Ntiruka, 2016; Kisanga & Richards, 2018). Teachers' negative perception and lack of the pedagogical knowledge and skills required in teaching inclusive classrooms made teachers reluctant to providing the appropriate instructional support to cater for the pupils diverse needs. Previous studies conducted in Tanzania reported that teachers perceived themselves as moderately competent to teach in inclusive classrooms (Kapinga, 2015; Tungaraza, 2014). However, most of these studies focused on a single disability rather than dual sensory impairment like deaf-blindness, which this was the focus of the current study.

Despite government's initiatives geared to improving equal access to education, the goals of inclusive education are not yet realised due to the financial constraints, lack of training in special needs education (SNE) or IE and the exposure to pupils with disabilities; overcrowded classrooms; inaccessible assessment as well as unavailability of teaching and learning resources (Kisanga & Richard, 2018; Possi & Millinga, 2017). Currently, there are inclusive schools in almost every region in Tanzania and some of them are 'Uhuru Mchanganyiko', Bugando Primary School, Nyanza Primary School, Ibeshi Primary School, Mugambe Primary School and Patandi

Demonstration Primary School. So far, inclusive education in Tanzania is not working well due to a number of problems such as inadequate number of well-trained teachers and specialists in special and inclusive education, insufficient teaching and learning resources, lack of sign language interpreters, inaccessible assessment, inaccessible physical infrastructure, negative attitude towards pupils with disability and inaccessible curriculum (HakiElimu, 2018; Tungaraza 2012; Kisanga & Richard, 2018; Kisanga, 2019; Kisanga & Kisanga, 2020). Besides the challenges policies (ETP, 2014) and acts (Education Act, 1978); that are in force have promoted an increased enrolment of pupils with special needs in inclusive classrooms. For example, the available education statistics (MoEST, 2016) show that the enrolment for pupils with disabilities has increased in primary schools from 30433 in 2011 to 37984 in 2016 as indicated in the Table 1 below as a trend of number of pupils with disabilities in primary schools by sex from 2011-2016.

Table 1: Trend of number of pupils with disabilities in primary schools in Tanzania

YEAR	2011	2012	2013	2014	2016
Boys	17363	16216	16644	13929	21151
Girls	13070	11979	14844	10612	15833
Total	**30433**	**28195**	**31488**	**24541**	**37984**

Source: MoEST (2016)

It is estimated that 37984 (43%) pupils from standard I to VII (boys 21151 and girls 15784) have disabilities, of which those with deaf-blindness were 6221 (17.1%) (MoEST, 2016). Despite the increase in enrolment, the transition rate for learners with disabilities from primary to secondary education is extremely low (MoEST, 2018a). The available statistics indicate that only 31 out of 6221pupils with deaf-blindness joined Form I in 2016. Table 2 indicates number of pupils with moderate deaf-blindness in secondary schools by sex from 2011-2016:

Table 2: Number of Pupils with Deaf-blindness is Secondary School by Sex, 2016-2018

Grade	2016			2017			2018		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Form I	17	31	48	9	5	14	14	13	27
Form II	17	31	48	8	7	15	18	16	34
Form III	10	23	33	8	16	24	25	6	31
Form IV	17	28	45	2	10	12	6	7	13
Form V	2	4	6	4	3	7	3	1	4
Form V1	0	2	2	0	0	0	5	3	8
Total	63	119	182	31	41	72	71	46	117

Source: (MoEST, 2016, 2017, 2018)

This means that there are barriers that hinder them from successful completion of their primary education, which prevents the realisation of the goals as stated in the national strategy for inclusive education. This is also in line with MoEVT report of 2012, which indicates that drop-out and repetition rates remain high for vulnerable learners including those who are deaf-blind.

Education statistics have also shown an increased enrolment of pupils with disabilities in primary schools from 37, 984 (2016) to 42,783 in 2017 (PO-RALG, 2018). The increased enrolment is attributed to parents' awareness of the right to education for pupils with disabilities, and the effective implementation of the IE and Primary Education Development Programme I,

II and III (PO-RALG, 2018). Despite this development, most pupils with disabilities including those with deaf-blindness in inclusive classes persistently experience poor academic performance (NECTA, 2017, 2018; MoEST, 2018b). Reports have also shown that the transition rate of these pupils to secondary school has been low (MoEST, 2016). This is; however, contrary with the Article 24 of the United Convention on the Rights of Persons with Disabilities of 2006 on the duty of states to ensure equitable access to quality IE at all levels without discrimination. The Sustainable Development Goals of 2030 also reaffirm the need to provide children with quality IE at all levels, irrespective of their sex, age, ethnicity or disability, to enable them to acquire knowledge and skills needed to exploit opportunities and to participate fully in the society (UNESCO, 2015). Although the right to education has been protected in these covenants, majority of pupils with disabilities experience exclusionary practices in schools, leading to a high drop-out rate, low transition rate and late completion rate (MoEVT, 2018a; Kisanga & Richards, 2018). For example, students with visual impairments were excluded through the teachers' tendency to rely on multi-media projectors with little oral explanation during teaching and learning process, whereas those with hearing impairment were excluded because of domination of lecture method without writing on the board as they were using multimedia projectors (Kisanga & Richards, 2018; Kisanga, 2019). This implies that there is discrepancy between the ideal and actual practice, when it comes to serving learners with different disabilities.

Studies have also shown that the successful inclusion of pupils with disabilities among other factors is not only dependent on teachers' knowledge, but also positive perception towards inclusion (Mngo & Mngo, 2018; Pritchard, 2014). Studies have also shown that several variables that influence teachers' perceptions towards inclusive education including child-related variables (severity and type of children's disabilities); teacher-related variables, consisting of teachers' gender, years of teaching experience, amount of training, and experience with persons with disabilities (Mngo & Mngo, 2018; Sakari, Etsuko, Kanako, Matti & Hannu, 2019; Yada, Tolvanen & Savolainen, 2018). Other variables are educational environmental-related variables (composed of physical environment and support from colleagues and specialists) (Blackie, 2010; Chireshe, 2013).

Teachers with negative perceptions of inclusion, were less likely to be committed to helping pupils with disabilities by providing supportive instruction and adapting curriculum, which lower pupils' self-esteem and confidence so that they do not perform well (Liggins, 2016; Pritchard, 2014; Ng'etich, 2018; Alpers, 2016). In Tanzanian primary schools despite the plethora of research (Kisanga & Richards, 2018; Kisanga, 2019) on the

discrepancy between teachers' perceptions and classroom practices pupils with disabilities, yet little is known specifically on the extent to which teachers' perception on the inclusion of pupils with moderate deaf-blindness affect the learning and participation of these learners.

Statement of the Problem

Teachers' perception on what and how they teach is a central tool in influencing the pedagogical decision-making and practices. It helps them how to respond positively to the diverse needs of learners especially in inclusive classrooms (MoEST, 2018a).

Despite the government initiatives to re-establish National strategy of IE and reforms related policies of IE, still pupils with disabilities including those with deaf-blindness experienced low transition rate from primary to secondary school level where they could optimise their full potential (MoEST, 2018).

The low transition of many pupils with disabilities from primary to secondary education implies that there is a problem on how teachers handle the pupils with disabilities and the way they consider them on learning. It was also not clear whether or not the primary school teachers' possess the required pedagogical knowledge for instructing pupils with moderate deaf-blindness, and how they perceived the inclusion of these pupils in inclusive classrooms. Thus, the there is a paucity of studies on the teachers' knowledge and perception on the inclusion of pupils with moderate deaf-blindness in inclusive classrooms in primary schools in Tanzania. Therefore, the present study was conducted to explore the primary school teachers' knowledge and perception on the inclusion of pupils with moderate deaf-blindness in inclusive classrooms in Tanzania to bridge the knowledge gap.

Research Questions

The study was guided by the following questions:

i. What are the teachers' perceptions on teaching pupils with moderate deaf-blindness in inclusive classrooms?
ii. What knowledge do Tanzanian primary school teachers have on teaching pupils with moderate deaf-blindness in inclusive classrooms?

Theoretical Underpinnings

The Social Model of Disability (SMD) developed by Oliver Mike in1981 (De Beco, 2017; Levitt, 2017) guided the present study. The social model theorists believe that disability is socially constructed, mirroring the thoughts, feelings, beliefs, understandings and values of the social milieu (Anastasiou, & Kauffman, 2013). Proponents of the SMD state that disability exists because of labelling or cultural representations, environmental barriers, institutional structure and social attitudes/perceptions toward human differences, not because of the difference itself (Donohue & Bornman, 2014; Levitt, 2017; Rees, 2017).

According to the Social model of disability, society (i.e., school) should address learning and participation barriers that limit equitable access to quality education for all pupils (Armstrong, 2014; Dudley-Marling & Burns, 2014; Mitchel, 2010). This position implies that disability is a result of society's failure to remove barriers that impede participation of pupils with disability (Shanimon & Rateesh, 2014). It means that when the education system, including the school personnel fails to alter the teachers' attitudes (i.e., perceptions, beliefs, disposition, assumptions) towards pupils with disabilities the teachers' pedagogical judgements, actions or practices will be affected. The social model offers relevant framework for understanding and explaining teachers' perceptions and instructional practices in relation to social dimensions (i.e., experience, conceptions, feelings, understanding and perceptions) towards pupils with disabilities. The theory further provides a framework for considering individual differences not as a fixed problem, but as opportunities for enriching learning (Hornby, 2014).

The SMD assumes that teachers who hold positive perceptions often engage pupils in active learning process that enhances communication and encourage them to participate in classroom activities (Alasim, 2018). This, in turn, leads to classroom interaction while inculcate the self-esteem, self-confidence, cooperative learning skills and self-acceptance as well as the increased pupils' academic gains (Pritchard, 2014). On the contrary, negative perceptions or beliefs towards pupils with disabilities lead to exclusionary classroom practices, labeling, negative stereotypes and stigmatisation (Cosmas, 2016; 0lsson, Sand & Stenberg, 2019). The theory also postulates that all pupils with disabilities should be supported in order for them to benefit from inclusive classrooms. However, pupils with profound and severe deaf-blindness were not the focus of this study.

Methodology

The nature of the research problem required qualitative approach to address the *'what'* and *'how'* questions in order to obtain information from the natural settings. The qualitative approach enabled direct contact between the researchers and the participants in obtaining the first-hand information about teachers' perception on teaching pupils with moderate deaf-blindness in inclusive classrooms, and, the teachers' pedagogical knowledge on teaching pupils with moderate deaf-blindness in inclusive classrooms (Cohen et al., 2011; Creswell, 2014; Fraenkel, Wallen & Hyun, 2015).

The approach was also considered appropriate and useful because it enables researchers to triangulate the data collection methods, such as interviews and classroom observations (Bryman, 2016; Creswell, 2014). With this approach, it was possible to observe teachers in actual classroom situations in the inclusive classrooms.

Research Design

This study employed case study design, in which embedded multiple case design was adopted. According to Yin (2014), embedded multiple case design is an empirical inquiry that investigates a contemporary phenomenon whose context is not clearly evident and in which multiple sources of evidence are used. It also provides the researcher with thick and detailed descriptions of the phenomena that is being studied (Bryman, 2016; Denscombe, 2014; Cohen et al., 2011). The design was useful as it enabled researchers to explore primary school teachers' knowledge, experience, perception and instructional practices on inclusion of pupils with moderate deaf-blindness.

Study area

The study was conducted in three districts of Tanzania, Ilemela and Nyamagana in Mwanza city, and Ilala district in Dar es Salaam. The districts were purposively selected because more pupils with moderate deaf-blindness were enrolled in schools located in the three selected districts when compared with other districts (MoEST, 2016). In Dar es Salaam, Ilala Municipality was selected because it has the oldest deaf-blind units (SENs unit) established in 1994 in an inclusive settings, where teachers had many years of experience in teaching pupils with moderate deaf-blindness in inclusive schools.

Participants

Eight special education and eight regular teachers from the selected primary schools were purposively selected to participate in the study. In this regard, four Heads of schools, four heads of SEN unit, and four academic teachers were also involved. Their selection was based on personal exposure with pupils with moderate deaf-blindness, training received in SENs or IE, and their experience in teaching pupils with disabilities in inclusive schools. Eight Pupils with moderate deaf-blindness from the selected schools were purposively selected to participate in the study.

Study procedures

In responding to the research questions, semi-structured interviews, classroom observations and post-observation interviews were used to generate data to gain an in-depth understanding of phenomenon. Twenty-eight semi-structured interviews were conducted with heads of school, heads of special units, academic teachers, regular education teachers and specialist teachers.

Observation was conducted for 40 minutes and it focused on how the classroom was set up; what pedagogical approaches were employed; what teaching and learning materials used; and how learning activities and assessment strategies were conducted. The researchers used an observation protocol that outlined the lines of inquiry based on the research question. The lessons were video-recorded to capture all details about the classroom practices. Post-observation video-stimulated interviews (PVI) were used to verify the instructional practices observed. Each observed teacher was shown a video clip of their actions as part of feedback.

Data analysis procedures

This study adopted Braun and Clarke's (2013) six steps of thematic analysis due to the nature of the research questions and the topic studied as it enabled cross-case analysis and comparison of data from different case studies (Yin, 2014; Creswell, 2014). First, researchers familiarised with the data by thoroughly reviewing them, transcribing the audio tapes and rereading the field notes. Second, the researchers systematically used inductive approach to develop themes from the raw data, and deductive approach to develop themes from the literature reviewed. Third, codes were created for the potential themes. Fourth, the themes were refined in terms of their relevance as themes. Fifth, each theme identified was given a name that showed how it related to the research questions. Finally, the report was written, which

interpreted the themes and explained what the data revealed about the subject being studied. Cross-case analysis was done in order to compare and contrast participants' views, feelings, perceptions and classroom practices to gain a deeper understanding of what was being studied. Thematic analysis was chosen due to its flexibility as it allows the researcher to go back and forth to draw appropriate inferences and conclusions.

Ethical issues and considerations

In this study, ethical principles were adhered to. In regard, a research permit from the responsible authorities at university, regional and district levels was sought. In the field, participants were informed about the purpose of the research and they were given right to withdraw at any time. Informed consent was obtained before conducting interviews and tape recording them and observing what happens in the classroom. To ensure confidentiality, pseudonyms were used for schools and participants.

Findings of the study

The findings were presented in response to the two research objectives, namely; teachers' knowledge on teaching pupils with moderate deaf-blindness, and, teachers' perceptions on inclusion of pupils with moderate deaf-blindness in inclusive classrooms.

Teachers' perception on inclusion of pupils with moderate deaf-blindness in general education classrooms

Under this objective , regular and special education teachers, heads of school and academic teachers were interviewed on 'how they perceived the inclusion of pupils with moderate deaf-blindness in general education classrooms. The teachers responses are summarised in Figure 1.
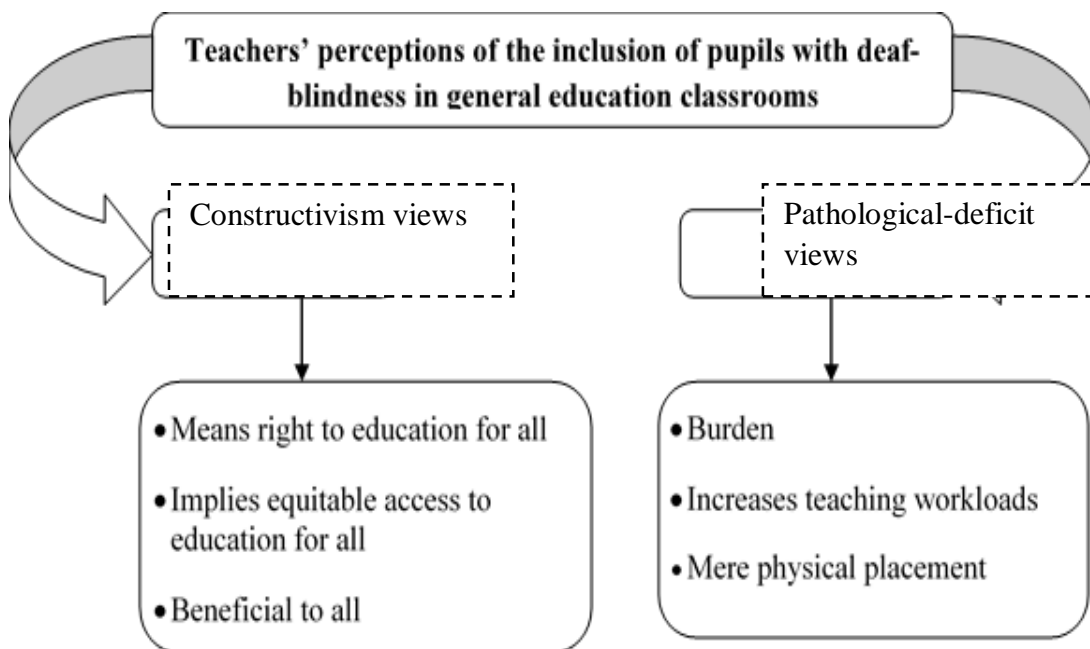
Figure 1: *Teachers' Perception on the Inclusion of Pupils with Deafblindness*
Source:*Field data* **(2019)**

It was revealed that heads of schools, heads of SEN, academic teachers and special education and regular teachers had various views on the perception about inclusion pupils with moderate deaf-blindness in inclusive classrooms as follows:

Inclusion as a "basic human right to education"

Findings revealed that 2 (50%) heads of schools, 1 (25%) head of SEN, I (25%) academic teacher and 8 (50%) regular teachers regarded inclusion as giving children with moderate deaf-blindness the right to education. Participants expressed that pupils with moderate deaf-blindness have the same right to quality education as their non-disabled connterparts . Consider the following two quotes expressed by participants from School C:

> In my view, I see inclusion as a right to education for pupils with or without disability to receive equal education opportunities without segregation. This is a good education approach to include all pupils in the same class and learning from the same currriculum (Special education T8, School D, 4th April 2019).

> I can view inclusion as an education approach that respects everyone's rights. As I know, education is a basic human right, therefore, inclusion removes stigmatization in schools. Chilren have the right to be educated together with their fellows (Head of SEN, School C, 21st February 2019).

The two quotations imply that teachers who embraced the human rights perspective on inclusion believed that segregating pupils with moderate deaf-blindness in special schools is a violation of human rights and unfair treatment. This was evident during classroom observation, where researchers noted that SEN teachers who viewed inclusion as a human right were more committed to engage pupils with moderate deaf-blindness in the learning process, adapted relevant teaching methods, provided more time for the completion of learning activities and encouraged peer-assisted learning.

Inclusion as Beneficial education strategy for all

Participants through interviews revealed that 2 (50%) of the heads of schools, 2 (50%) heads of SEN, 3 (75%) academic teachers, 6 (38%) regular teachers and 5 (63%) SEN teachers were of the view that inclusion of pupils with moderate deaf-blindness was the most appropriate educational approach as it increases social interaction, encourages cooperative learning and academically benefits all pupils, while reducing negative stereotypes and labelling. Consider the two quotations below:

> Non-disability pupils benefit from inclusion. They play together and interact each other, and they gain academically (Regular education teacher, SA, 25th January 2019).

> Inclusion is beneficial for all pupils because it reduces labeling and stigmatization. Pupils with moderate deaf-blindness feel a sense of belonging and acceptance and enjoy learning. Inclusion helps to develop cooperative learning among pupils and an understanding of each other's needs (SEN T6,School D, 19th March 2019).

The two excerpts indicate that teachers had knowledge that limits them to provide appropriate instruction support to pupils with moderate deaf-blindness. They believed that inclusion was the most influential education approach and were enthusiastic to embrace individual differences in enriching the learning rather than seeing it as a problem**.**

Inclusion of pupils with moderate deaf-blindness as a 'Burden'

The participants that 3 (75%) of the HoS, 2 (50%) of the HoSEN, 3 (75%) of academic teachers, 6 (75%) of the regular teachers and 7 (88%) of SEN teachers viewed the inclusion of pupils with moderate deaf-blindness as a burden. This was due to the existing barriers in inclusive settings, which advesely affected instructional practices, pupils' behaviour and learning outcomes. Only a few regular teachers believed that educating pupils with moderate deaf-blindness in inclusive classes was challenging as it was felt as an added workload for teachers. They also believed that pupils with moderate deaf-blindness are uneducable and so there was no point in trying to teach them in regular classrooms as pointed out by one of the participants:

> In my thinking, including pupils who are deaf-blind brings a lot of challenges in teaching. It is actually a burden for us. This is because these pupils are slow learners; they need more time to learn. This is beyond my expertise as a regular teacher. I am not a specialist teacher (RET, School B, 25th February 2019).

Another Head of special needs education from school A had a similar view:
> Frankly speaking, teaching these pupils in regular classroom is a complex task due to shortage of teaching and learning resources. Forty minutes is not enough to assist them. I feel uncomfortable and incapable to support them. We need training in order to teach them (HoSEN, School A, 27th February 2019).

The two excerpts suggest that for pupils with deaf-blindness and other disabilities to benefit from education provided in regular schools, there should in place a programme that is geared at transforming the education system and while changing the teachers' mind-set towards pupils with disabilities and inclusive education. It was evident that a teacher who perceived learners as burden and low achievers was reluctant to involve them during teaching and learning process. On this aspect, classroom observation also showed that the belief affected teachers' practice, as they paid little attention to helping pupils with moderate deaf-blindness. For example, they did not use the learner-centred approach, nor did they modify the curriculum or learning activities, despite the directive of the National Strategy for Inclusive Education [NSIE] of 2009-2017.This prevented learners with disabilities from participating fully while lowering their academic performance and self-confidence.

Inclusion as 'mere physical placement' of pupils in the classroom

The study also indicated that all 4 (100%) academic teachers, 2 (50%) of the HoSEN, 1(25%) HoS, 7(88%) of the regular teachers and 5 (63%) of the SEN teachers believed '*inclusion*' was 'a mere physical placement' of pupils with moderate deaf-blindness together with their disabled peers. Teachers with this view believed that the learning difficulties of pupils with disabilities were a permanent fixture, and so pupils with moderate deaf-blindness should be educated in separate classrooms with specialised instruction from SEN teachers. Teachers' narratives below present this point of view:

> In my view, I see inclusion of pupils with deaf-blindness as mere physical presence in the classroom because they are not learning due to lack of special equipment to support them. They are just sitting and watching what their peers are learning. This is totally confusing as to what inclusion means (RET2, SA, 22nd February 2019).

> In reality, what I can say is that pupils with deaf-blindness should be educated in special classrooms, because we don't have the knowledge and skills to teach them. They come here to attend the class but not to participate in learning. This is too bad…often they stay lonely in the classroom without communicating with their fellow pupils. (SEN/T7, SD, 5th April 2019).

The two excerpts suggest that, inclusion of students with moderate deaf blindness should go beyond their placement in regular classrooms. To have these pupils in inclusive settings without consideration of their needs was just a social inclusion rather than academic inclusion.

Teachers' knowledge on teaching pupils with moderate deaf-blindness in inclusive classrooms

Teachers were asked about their knowledge on the learning needs of pupils with moderate deaf-blindness in inclusive classrooms and their experience of teaching pupils with moderate deaf-blindness and their exposure to such pupils. They were also asked whether or not they had received any training in SENs or IE. Table 2 presents a summary of teachers' responses.

Table 2: Teachers' Experience and Training in Special Needs Education and Inclusion

Variables	Category	Categories of participants									
		HoS		HoSEN		A/Ts		R/Ts		S/Ts	
		N	%	N	%	N	%	N	%	N	%
Experience of teaching pupils with moderate deaf-blindness	Below 5	3	75	2	50	3	75	5	63	2	25
	More than 5	1	25	2	50	1	25	3	38	6	75
Exposure to pupils with moderate deaf-blindness	Below 5	2	50	3	75	4	100	2	25	2	25
	More than 5	2	50	1	25	00	00	00	00	6	75
Training received in SENs	Yes	1	25	4	100	00	00	00	00	8	100
	No	3	75	00	00	4	100	8	100	00	00
Training received in IE	Yes	00	00	1	25	00	00	1	13	4	50
	No	4	100	3	75	4	100	7	88	4	50
Area of specialisation	Hearing	1	25	3	75	00	00	00	00	5	63
	Visual	1	25	1	25	00	00	00	00	2	25
	Deaf-blindness	00	00	00	00	00	00	00	00	1	13

Note: HoS=Heads of schools, HoSEN=Heads of special education unit, A/Ts= Academic teachers, R/Ts= Regular education teachers, S/Ts=Special education teachers.

The data in Table 2 imply that majority of the primary school teachers had less than five years of teaching pupils with moderate deaf-blindness. The limited teaching experiences with deaf-blind learners promoted the teachers' negative perception on learners with disabilities. The teachers' limited knowledge over the pedagogical needs was also revealed through classroom observation.

In terms of exposure to pupils with deaf-blindness, 2 (50%) of HoS, 3 (75%) of HoSEN, 4 (100%) of academic teachers, 2 (25%) of regular teachers and 2 (25%) of SEN teachers had been exposed to pupils with disabilities over the period of less than five years ago. In terms of training, 4 (100%) of HoS, 3 (75%) of HoSEN, 4 (100%) of academic teachers, 7 (88%) of regular teachers and 4 (50%) of SEN teachers had no training on IE. This implied that teachers lacked the pedagogical knowledge for effectively implementing IE. It was also evident that 8 (100%) of SEN teachers had been trained to teach pupils with a single disability; thus, they lacked knowledge required for teaching pupils with dual-sensory impairment. It also indicated that majority of the primary school teachers were not conversant with specific learning needs of pupils with moderate deaf-blindness. A summary of

teachers' knowledge on teaching pupils with moderate deaf-blindness in inclusive classrooms is presented in Table 3.

Table 3: Teachers' Knowledge on Teaching Pupils with Moderate Deaf-Blindness in Inclusive Classrooms

Category of Learning Needs	HoS		HoSEN		A/Ts		RETs		SETs	
	Adq	Inadq	Adq	Inadq	Adq	Inadq	Adq	Inadq	Adq	Inadq
Communication needs	1	3	1	3	0	4	1	7	3	5
Curriculum adaptation	0	0	4	0	1	3	0	8	2	6
Environmental adaptation	2	2	3	1	1	3	1	3	6	2
Assistive devices	2	2	3	1	1	3	0	8	4	4

Note: **Adq**=adequate   **Inadq**=inadequate

Overall, the data in Table 3 indicate that majority of primary school teachers were uncertain about communication needs of pupils with moderate deaf-blindness, curriculum and environmental adaptation as well as the required assistive devices.

Discussion

The findings have shown that although primary school teachers were required to adopt and implement inclusive education, most of them had pathological-deficit mind-set over inclusion of pupils with moderate deaf-blindness. Only a few teachers perceived inclusion of learners with deaf-blindness as a basic human right, beneficial education for all, a burden as well as a mere physical placement.

The tendency of teachers to perceive inclusion as a basic human right was in line with the Constitution of the United Republic of Tanzania (1977) Article 6, Child Act (2009) and the Persons with Disabilities Act (2010), which emphasise on equal access of education for all learners without discrimination (URT, 2010). Similarly, the UNESCO Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994) recognises IE as the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and

achieving education for all. This implies that teachers with this perspective are more eager to reduce or remove barriers to learning and participation while promoting appreciation and acceptance of individual differences in the learning process (Armstrong, 2014; Mag, Sinfield & Burns, 2017; Donohue & Bornman, 2014).

Teachers' perception on inclusion of deaf-blindness as a burden and a mere placement can be associated with teachers lack of training in inclusive education, limited teaching experience, lack of exposure to learners with deaf blindness, large classes, inadequate teaching and learning resources, and lack of administrative support. In this regard, Ezekiel (2009) reported that training in special and inclusive education and teachers' exposure to individuals with disabilities were the strongest predictors of teachers' attitudes towards inclusive education. Similarly, Kisanga (2020) shows that teachers' negative perception towards students with sensory impairment as incapable and a burden was due to limited training and exposure to such category of learners. Teachers viewed inclusion on the basis of the pathological *deficit mind-set* and perceived pupils with moderate deaf-blindness as '*uneducable',* '*incapable'* and a *'burden'* to cope with the general education curriculum in inclusive settings. This is similar to what was reported by (Braun, 2011), that teachers who have a 'pathological mind-set' feel overburdened by the demands and responsibilities of teaching in inclusive classrooms. They tend to distance themselves from adapting the curriculum that would cater for the pupils' diverse needs. The findings are in line with reports by Adedoyin & Okere (2017), Blackie (2010), Godwin (2013), Motitswe and Mokdadi (2017), Mngo and Mngo (2018), Pritchard (2014), Sesay (2018) and Tungaraza (2015), who reported that teachers who negatively considered inclusion of pupils with disability were more reluctant to make significant curriculum adaptation to meet the widest range of needs to all pupils.

On the contrary, findings were inconsistent with the Article 24 of the Convention on the Rights of Person with Disabilities of 2006, which advocates the right to education of persons with disabilities on the basis of equal opportunities without discrimination. According to this convention, State parties must ensure that pupils with disabilities are not excluded from general education on the basis of disability (UNESCO, 2015). They are, again, in contrast with the Tanzania's policies, legislation and strategies that promote IE as a means to guarantee the right to education for all persons without discrimination, including the Constitution of the United Republic of Tanzania of 1977, Article 6, Education and Training Policies [ETP], (MoEC,1995; MoEVT, 2014), the Child Act of 2009, Persons with Disability Act of 2010, National Disability Policy of 2004 and the National

Strategy for IE of 2009-2017 and phase II of 2018-2021. This implies that teachers were not yet trained adequately about what is meant by inclusion and how best it could be implemented. This may have a far-reaching negative impact on the teachers' effectiveness in catering for the diverse needs of all pupils in inclusive classrooms.

On teachers' knowledge, it was revealed that teachers had limited knowledge on learning needs for pupils with deaf-blindness and the teachers were unable to explain the specific communication needs of pupils with moderate deaf-blindness as they could not employ the appropriate curriculum, environmental adaptations and the technological assistive devices to respond to pupils' diverse needs. Thus, teachers' limited knowledge for teaching pupils with deaf-blindness in inclusive classrooms was mostly likely expected to undesirably affect the provision of equitable access of quality education for all pupils.

Conclusion and Recommendation

Based on the two research questions, the study has shown that majority of primary school teachers recognised IE as a means for achieving education for all and ensuring that all pupils had equal education opportunities without any kind of discrimination. However, a few primary school teachers had negative perceptions of inclusion of pupils with moderate deaf-blindness. Inadequate teacher's knowledge attributed them to have negative perception that resulted them to believe that pupils with moderate deaf-blindness should be educated in a separate classroom in a special unit.

Drawing on the key findings, the studies recommended that there should be regular training for teachers that aimed at transforming and changing the teachers' negative perceptions on pupils with disabilities and equip them with relevant pedagogical skills required for teaching in inclusive classrooms. To achieve this, the government, in collaboration with other educational stakeholders and agencies, should work together and dedicate resources to ensure that conditions for pupils with disabilities in primary schools in Tanzania are improved.

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