

Full Length Research Paper

Structural modification challenges facing the implementation of inclusive education policy in public secondary schools in Tharaka-Nithi County

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Educational policy guidelines mandate that all learning institutions, adopt, design and embrace programs that are conducive to learners with disabilities. In spite of inclusive education policy guidelines, disability remains a major course of discrimination in Kenyan schools. This study therefore, examined the structural modification challenges on the implementation of inclusive education policy in schools. The study adopted mixed-method research approach, which uses both qualitative and quantitative methods. The target population comprised all the principals, teachers and students in Tharaka-Nithi County. The study employed purposive sampling to select 16 extra-county and county secondary schools. The sample size constituted 161 respondents. The data were collected using questionnaires for 100 class teachers, teaching learners with disabilities, an interview guide for 11 learners with physical disabilities to discuss their personal experiences on structural modification challenges and focus groups discussions for 50 non-disabled students learning in the same classrooms with learners with disabilities. Quantitative data were analyzed by descriptive statistics of frequency counts and percentages while qualitative data were analyzed thematically. The research findings established lack of modified physical resources, poor attitude towards inclusive education policy, poverty among parents of children with disabilities, and lack of teachers' skills on Special Needs Education (SNE) were major challenges facing the implementation of inclusive education in public secondary schools. There are other structural modification challenges not in the scope of this study that could be affecting implementation of inclusive education policy and can be tackled at school level. The study established a clear link between structural modification challenges and weak policy guidelines. Therefore, the study concluded that weak inclusive education policy guidelines on structural modification in schools led to lack of modified physical resources, poor attitudes of key stakeholders, poverty and lack of teachers' skills on SNE, which contributed to poor implementation of inclusive education. Thus, a clear inclusive education policy guideline on structural modification is necessary to enable schools provide a learner-friendly environment, that nurtures learner diversity.

Key words: Structural modification challenges, inclusive education policy, public schools, Kenya.

INTRODUCTION

Structural modification can be defined as any intervention within a school whose primary purpose is to improve an individual learner's functioning and independence, thus nurturing access and participation for learners living with disabilities. The purpose of structural readjustment under inclusive education policy is to give every learner equal access and participation, which is their fundamental right to education, and this is recognized as a human right, (United Nations Educational, Scientific and Cultural Organization (UNESCO), 1994; United Nations Convention on the Rights of Persons with Disabilities (UN-CRPD), 2006). Inclusive education policy requires schools to provide special education services such as an establishment of a safe and a barrier free environment, learner-friendly buildings, modified furniture and equipment for learners with special needs and disabilities (RoK, 2009, 2012). Successful implementation of an inclusive education policy advocates the creation of awareness in schools, so as to understand their own prevailing challenges, assets and resources necessary for transformation. This consequently leads to the understanding of the education frameworks that facilitate school evaluation on inclusion, supportive partners and collaborators, and developmental strategy for an inclusive, school-wide readjustment (Schuelka, 2018; Swift Center, 2018; UNESCO-IBE, 2016). Structural modification should therefore focus on school assets and resources to enable them create a conducive and friendly environment for all learners. This study also advocates for the incorporation of the negative challenges brought about by novel Corona Virus (Covid-19) pandemic on learners with disabilities, in designing and in the implementation of inclusive education policy especially in developing countries (RoK, 2020).

The effort on an all-encompassing education for learners with disabilities was enhanced with the adoption of the Salamanca Statement and Framework of Action on Special Needs Education in Spain (UNESCO, 1994). The Salamanca Statement was developed from the Education for All (EFA) crusade advocating for universal access and participation to a basic education. With its 117 signatories, inclusive education became obligatory for signatory countries. The governments were mandated to give priority to their policy, legal and budgetary provision to reorganize the education system for the provision of quality education for all and to promote learners' diversity in acquisition of quality education (UNESCO, 2015). Despite this directive call to inclusion, there has been confusion in practice due to lack of authority in the

definition of an inclusive education (The United Nations Children's Emergency Fund, 2016; Global Partnership for Education, 2018). Consequently, the Convention on the Rights of Persons with Disabilities (CRPD) was published and endorsed by 177 signatory countries (United Nations, 2006). The CRPD intended to safeguard the right and pride of persons with disabilities and to treat them as persons with equal rights in the society. In this document, inclusive education became legally binding for all signatory nations and it provided a clear and an authoritative definition of inclusion: "Inclusion involves a process of systemic reform embodying changes and modifications in content, teaching methods, approaches, structures and strategies in education to overcome barriers with a vision serving to provide all students of the relevant age range with an equitable and participatory learning experiences and environment that best correspond to their requirements and preferences" (United Nations (UN), 2016, p. 4).

The adoption of the Convention was highly significant, as individuals living with disabilities, often remain victims of discrimination and deprived of equal educational opportunities. Hence, Article 24 (iv) and (v) of the Convention gave the people with disabilities a lease of life in education. It states that: (a) "Persons with disabilities receive the support required, within the general education system, to facilitate their effective education; (b) Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion" (UN, 2006, p60). This presented a fundamental change to all countries, including the Kenyan government that has ratified the international agreements and are bound by its guiding principles. Member states endorsing the agreements have committed to transforming education systems by legalizing intervening strategies that focus on learners with special needs and disabilities (UN-CRPD, 2006).

The Government of Kenya, being a signatory to various international and regional frameworks for education, recognizes the right of every learner with disability to access education. This has been demonstrated through ratification and embracing of several international agreements and endorsing them into laws and policies geared towards organizational modification for access and participation of learners with disabilities. In 2009, the Ministry of Education in collaboration with key partners developed the Special Needs Education (SNE) policy framework (RoK, 2009) to ensure that students with

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disabilities receive equal access to special education services. The SNE policy framework is the guiding document for providing special education services in Kenya. Some of the objectives of SNE policy framework relevant to this study include the provisions of: (a) resources to make learning institutions accessible for learners with special needs and disabilities; (b) adequate and friendly buildings, furniture and equipment; (c) ensure safe environment and (d) ensure modified facilities of tuition, boarding and the sanitation. Consequently, the government recognizes the significant role of teachers in achieving Vision 2030, by adopting and designing structural readjustment interventions that enhance inclusive education (RoK, 2012). In order to implement crucial SNE policy strategies, the National Education Sector Plan (NESP, 2013-2018) recommended the review process, which culminated into the development of The Education and Training Sector Policy for Learners and Trainees with Disabilities (RoK, 2018), whose objective was to address the prevailing policy and implementation gaps on conducive and safe environment for learners with disabilities (RoK, 2018).

The challenges facing learners living with disabilities in Kenya were documented in policy as early as 1964, when the Ominde Commission made a recommendation which allowed for education and training for the disabled (Kochung, 2003; RoK, 1964). However, it was the Kenyan Constitution (2010) that made matters related to the marginalized, including individuals living with disabilities, highly pronounced (RoK, 2010). The education policies before and after realignment into the Kenyan Constitutions seem not to have fully benefited learners with disabilities, as many of them are still out of school (Kiiru, 2018). Despite the fact that policies to implement inclusive education are specified in Kenyan laws and policies, no study has been done to examine structural readjustment challenges in relation to the inclusive education policy. Hence, this research sought to fill this gap.

Research questions

This study was guided by the following research questions:

- 1) How many students with physical disabilities have been enrolled in public secondary schools in Tharaka-Nithi County?
- 2) To what extent have structural readjustment challenges affected the implementation of inclusive education policy in public secondary schools in Tharaka-Nithi County?
- 3) What strategies could be employed to minimize structural readjustment challenges in public secondary schools in Tharaka-Nithi County?

LITERATURE REVIEW

Policy elements influencing the implementation of inclusive education

Implementation of Inclusive education can only be predictable when all relevant policy elements that control the implementation process are put in place (Schuelka, 2018). This is because policy implementation is functional within the school structures through which policy objectives are put into practice. Some of the dilemmas connected with practices of inclusive education policy that are obvious during implementation are as a result of blunders made from the other stages (Gallup, 2017). Successful inclusive education policy implementation requires school transformation and systems change, for the purpose of learners to get education in a mainstream school (Schuelka, 2018). According to Mulugeta (2015), five elements influence implementation process namely; the policy content and the context through which the policy must be implemented; the commitment of implementers towards the policy, the capacity of the implementers to implement the policy and the support of policy consumers and partners whose interests are affected by the policy (Puhan et al., 2014; Tesfaye et al., 2013).

Policy content is one of the fundamental pillars on which structural modification on inclusive education policy are founded. The content of policy is generally viewed as a fundamental factor in creating the parameters and guidelines for policy implementation, although it does not determine the exact order of implementation process (Bell and Stevenson, 2015; Fullan, 2015). The policy content includes: what it sets out to be done; how it communicates about the problem to be solved and how it aims to resolve the problem. Commitment of policy implementers is usually assumed to be the most significant factor in policy objectives achievement process. Commitment is biased and very hard to measure, (Gallup, 2017). However, there are pointers that show the level of commitment of a school to a particular mission. One pointer is accomplishing responsibilities and assurances, especially when the school knows what its roles are towards policy implementation. Practices of policy may be noble, but if the implementers are reluctant to come up with effective strategies to carry it out, implementation will not occur (Mason, 2016; Pont, 2017).

Formation of policy consumers and partners, among those affected by the practice of policy is one of the most central components during the implementation process. The success or failure of practices of policy, in this case, structural modification interventions, depends on the support the policy produces among those who are affected (Hopfenbeck et al., 2015). Policy implementation researches have revealed that the understanding of any

public policy rests on the capability to implement it (Hess, 2013). It is mostly known that many development efforts are unsuccessful in many countries because they lack organizational ability to implement and sustain the practices of policy. Capacity is normally defined as the ability to accomplish policy functions, solve problems, set and realize policy objectives (Bell and Stevenson, 2015; Hopfenbeck et al., 2015). The general organization's ability includes structural, functional and cultural capacity to implement the policy objectives (Burns et al., 2016). An institutional (school) capacity to modify its strategies and systems to enhance accessibility for all learners is crucial to the implementation of inclusive education policy. These strategies include: authorization, financial investment, building an enabling environment, ethos, and the way the individuals and institution intermingle in the public sector and within the community as a whole (Bell and Stevenson, 2015). The school is a key player to the implementation of practices of inclusive education policy

Structural readjustment in schools

Structural readjustment is imperative for the success of inclusive education services. The quality and adequacy of structural modifications has a direct bearing on quality education, as they determine how effectively the curriculum is implemented (UNESCO-UIS, 2018). Learners with special needs and disabilities require a learner friendly environment to maximize their functional and academic potentials (Tirana, 2017). Schools need to be restructured in order to respond effectively to the needs of all learners. Adapting the school environment refers to adjusting the general school setting to encourage a barrier-free learning environment (The Organization for Economic Cooperation and Development, 2017, RoK, 2018). For example, the architectural structure of the classrooms and walkways, such as pathways on the school ground, should be made easily accessible for the mobility of learners living with disabilities (United Nations Children Emergency Fund, 2014). Consequently, adapting the whole school environment reduces the difficulties experienced by learners with disabilities. This can be done by creating a barrier free environment that increases the capacity to experience freedom in learning and accessibility (UN, 2018). The inclusive school ought to be pro-active relative to a variety of needs of all learners rather than reactive as an integrated education has been (Schuelka, 2018). In order to provide a truly inclusive school, the physical environment needs to be safe and accessible to all students, including those with physical and sensory disabilities (Hayes and Bulat, 2017). Issues relating to the structural readjustments can only be addressed at the planning stage and are concern for educational authorities, builders and architects (RoK, 2018). A school

with learners with disabilities requires special resources to cater for their needs.

Collaboration among teachers and key stakeholders is also a critical factor in the implementation of inclusive education policy (RoK, 2009). Working in partnership with professional peers shows evidence of increased, varied instructional skills as well as decreased tendencies to make referrals to special education learners (Schuelka, 2018). Effectiveness of collaboration as a strategy is significant for improving student outcomes in inclusive settings. Researchers have documented the successful teaming up of teachers, inclusive service providers, and parents in implementing support plans for students with disabilities and those who are academically at-risk (Sifiso and Matome, 2018). Consistently, supported implementation of inclusive education policy resulted in increase in academic skills, engagement in class activities, interactions with peers, and student-initiated interactions for all learners (Hayley and Ingrid, 2019). Despite the enactment and domestication of international laws on inclusive education, there is still a big gap between policy frameworks and inclusive practices on the ground, (UNICEF, 2019). Schools need to put in place systems related to inclusive strategies in order to respond effectively to learners' educational needs and minimize barriers that hinder the implementation of inclusive education (Fullan, 2015).

Theoretical framework

This study was grounded on the Social Model of Disability. The model was developed and initially introduced in the mid-seventies by Mike Oliver, an activist in the Union of the Physically Impaired against Segregation (UPIAS), who adapted it from a union booklet published under the title: *Fundamental Principles of Disability* (Watson et al., 2012). The Social Model of Disability was developed in disapproval to what was alleged to be a damaging „Medical Model“ which perceives disability as predominantly a medical issue, entailing personal misfortune and necessitating treatment. In the context of the social model, impairment is perceived as a body defect such as a deformity of a limb (Goering, 2015). On the other hand, disability is considered as a drawback triggered by the society and prevents the people from participating in community life as a result of their impairment (Retief and Letšosa, 2018). This is a significant contrast, because the social model proposes that bodily function does not limit one's aptitudes; it is the society (Karen et al., 2018). In this perspective, there is nothing fundamentally disabling about having impairment. This marks an important theoretical paradigm shifts from the individualistic medical model with its emphasis on examination, therapy and re-integration to a more accommodating social justice

system where disability is not synonymous to inability (Leshota, 2013).

The social model theory is appropriate for this study as the model asserts that the challenges are found within the society (school), which create disability by restricting the functioning of an individual, and this has impacted negatively participation for individual learners with disabilities (Terzi, 2014; Owens, 2015). The model stresses that the restricting obstacles within the community arise from attitudinal, societal and environmental challenges, which block individual with disabilities from getting equal opportunities with their non-disabled colleagues (Beaudry, 2016). A school is an immediate learning environment of a student and has a great effect on quality education accessed by the learner. Inaccessible environment creates disability challenge that impacts negatively participation and quality education (Global Partnership for Education, 2018). For instant, a student in a wheelchair has no problem with their impairment until she/he encounters staircases. The stairs become a disabling challenge, that makes him/her not access a library located on the third floor, but this is not his/her fault, as the school favours only those who can walk (Owren and Stenhammer, 2013). The modification of a staircase into a ramp would enable a wheeled learner increase his/her participation in quality education (Mattie et al., 2015).

Moreover, the model is suitable to this study since it acknowledges the inclusive education policy which mandates all learning institutions to eliminate attitudinal, environmental, institutional and financial challenges which bar learners with disabilities from accessing quality education. The model also calls on schools to modify all the structural challenges so as to promote access and participation for learners with disabilities and this positively impacts their academic and social achievement (RoK, 2018). The transformation of an organization means creating a friendly and unprejudiced environment to give equal opportunities to all learners, regardless of their differences (Haegele and Hodge, 2016; Terzi, 2014). Changing conflicting perceptions towards disability decreases marginalization in all aspects of school life (Rees, 2017). By accepting and encouraging students to work together, irrespective of their differences, promotes self-esteem and self-perception, thus influencing both their academic and social life. Thus, the school embraces the uniqueness of each student, views impairment as a resource and appreciates and celebrates learners' diversity.

METHODOLOGY

Location of the study area

The study was carried out in Tharaka-Nithi County representing the forty-seven counties in Kenya. The county has two distinctive

zones; a highland zone with many, highly-populated public secondary schools, and semi-arid lower zones with few poorly-populated schools. The zonal diversity influenced the number of school and respondents who participated in the study.

Research design

Mixed methods research approach was used in the study, in order to provide an in-depth and broad perspective on structural readjustment challenges facing the implementation of inclusive education policy in secondary schools in Kenya (Creswell et al., 2011). The advantage of using mixed methods research approach is that the researcher links the essentials of qualitative and quantitative approaches by drawing from the strong points of each method. A mixed-methods research enabled the researcher to gain a wider perspective and profound understanding of structural readjustment challenges facing inclusive education implementation. Within a mixed method research approach, the study specifically employed the convergent parallel technique, which involved collection and analyses of both quantitative and qualitative data separately in the same time-frame, analyzes the two components independently, and the results from the two data sets are merged for an overall interpretation. The aim of the convergent parallel technique was to develop a more understanding of structural modification challenges by comparing and contrasting various results from the same sources (Creswell et al., 2011).

Target population and sample size

Principals, teachers and secondary school students in Tharaka-Nithi County constituted the target population for this study. The sample population was obtained from all extra-county and county secondary schools who enrolled learners with disabilities (LWD), non-disabled learners, studying in the same classes with LWD and class teachers teaching learners living with disabilities. Aggregated data for learners living with disabilities presently or previously enrolled in public secondary schools were absent at the Education Offices in Tharaka-Nithi County, hence the researcher made calls to 56 secondary school principals of all the extra-county and county schools to find out whether they had enrolled learners with disabilities. Sixteen out of 56 schools had enrolled learners with physical challenges. The researcher targeted extra-county and county schools because they are well-resourced financially, physically and in human resources. Hence, the researcher felt that the schools were well endowed with physical and human resources necessary for the implementation of inclusive education policy without challenges. Learners with disabilities in sampled schools were purposively included for the interviews. Non-disabled students learning in the same classes were randomly selected to participate in focus group discussions

Research instruments

The research instruments for data collection in this study were semi-structured questionnaires for all the teachers, interview schedule for learners living with disabilities and focus group discussions for non-disabled learners. The questionnaire for teachers was developed to provide the quantitative data. The questionnaires had both closed ended and open-ended items. Closed ended items facilitated straightforward scoring of data and data analysis. Open-ended items gave teachers an opportunity to give their opinion and provide an in-depth information on structural modification challenges facing implementation of inclusive

Table 1. Population sampling frame.

S/N	Categorization	Type of school				Total
		Extra county		County		
		Male	Female	Male	Female	
1	School principals	4	2	6	4	16
2	Class teachers	16	21	19	28	84
3	Non-disabled learners	30	0	10	10	50
4	Learners with physical disabilities	6	0	2	3	11
	Total	56	23	37	45	161

Source: Field study.

education policy. The interviews for learners with disabilities were intended to give them chances to express their experiences in schools and focus group discussions for non-disabled learners studying in the same classes with LWD.

Data collection procedure

The researcher acquired ethical approval certificate from the Ethical Review Committee (Pwani University) and a research permit from the National Council of Science, Technology and Innovation (NACOSTI) before administration of the research instruments. This was because the study involved interviewing of the learners with physical disabilities. The researcher made courtesy calls to the Education Officers to be authorized to conduct research in schools in Tharaka-Nithi County. Sixteen (16) extra-county and county secondary schools were visited by the researcher. Detailed letters explaining the information on the research to be conducted were sent to principals of the selected schools. The researcher conducted the interviews with the learners with physical challenges, which was done on one-to-one basis. A total of 11 learners with physical challenges were interviewed; it took a duration of 10-15 min. The researcher also conducted 5 focus group discussions each with the 10 non-disabled learners, which lasted for 20-35 min. The focus group discussions were audio-taped so that the researchers could listen carefully to the responses later after the interview. Besides, using a tape recorder was considered significant to enable the researcher to concentrate on the participants' responses rather than taking notes.

Data analysis

Quantitative analysis was based on numerical dimensions of a specific aspect of the population. In the data analysis process, the raw data gathered from the questionnaires were keyed into SPSS version 20 in order to make inferences about the population using the information provided by the sample. Quantitative data were analyzed using descriptive statistics, that is, frequencies and percentages. Qualitative analyses involve obtaining comprehensive information about phenomenon being studied and establishing patterns and trends from the data collected (Creswell, 2014; Viswambharan and Priya, 2016). The researcher transcribed all interviews and organized them into meaningful categories, then grouped them into related codes. The coded information was organized into themes and presented in a narrative form. The data facilitated making conclusion and recommendations, including recommendations for further research.

RESULTS AND DISCUSSION

Instrument return rate

A total of 100 out of 120 teachers, constituting 83.3% response rate, completed and returned the questionnaires. On the other hand, 11 out of 13 learners with physical challenges were interviewed, which was 84.6% response rate. Similarly, 5 focus group discussions, each with 10 non-disabled students participated in the study as indicated in Table 1. The return rate of 75% and above was considered sufficient to provide information about a given population. Best and Kahn (2006) suggest that a 50% response rate is adequate, while 60 and 70% are good and very good respectively. The researcher made follow up telephone calls with the school principals to establish whether the questionnaires were ready for collection. Best and Kahn (2006) support the use of vigorous follow-up measures to increase the questionnaire return rate.

The research findings are presented according to the research questions summarized as follows:

- 1) Number of students with physical disabilities who have been in schools,
- 2) Structural readjustment challenges affecting the implementation of inclusive education policy,
- 3) Suggestions on how the schools can minimize structural readjustment challenges.

Number of learners currently/previously admitted in school

The first objective was to identify the number of students living with physical disabilities currently and/or previously enrolled in schools. Data from the 100 questionnaires filled by teachers teaching learners with disabilities revealed that there were 11 learners with physical disabilities currently enrolled while 30 students with physical disabilities were previously enrolled in County and Extra-county secondary schools. Table 2 presents

Table 2. The number of learners with physical disabilities currently or previously enrolled in schools between 2015 and 2018.

Learners with physically disabilities	Type of Public Secondary Schools															Total no. of LWD	Total no. of teachers	
	Extra county					County schools												
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O			P
Presently enrolled	4	0	2	0	0	0	3	0	0	0	0	2	0	0	0	0	11	100
Formerly enrolled	2	8	0	6	1	2	0	2	1	1	1	0	2	1	2	1	30	

Source: Field Study: NB there are 18 extra-county and 38 county, 18% teachers had some form of special needs.

the number of learners currently or previously admitted in schools. The distribution of learners currently enrolled was six (6) in two extra-county schools and 5 in two County secondary schools. The distribution of LWD previously enrolled was seventeen (17) in four (4) extra-county schools while 13 were in 9 County schools.

As shown in Table 2, it is clear that there are few learners with disabilities enrolled in public secondary schools in Tharaka-Nithi County. Out of the 18 extra county schools only 6 (30%) schools had currently and/or previously enrolled LWD and 10 (26.3%) out of thirty-eight County schools had admitted learners with disabilities. From Table 2 above letter A-E represents Extra-county secondary schools while letter F-P represent County secondary schools. In each school, the number of learners with disabilities currently or previously enrolled is indicated. Only school A had four students with disabilities currently enrolled and two previously enrolled. This report implies that there are very few learners with physical disabilities that are either currently and/or previously enrolled in public secondary schools. The findings are in line with the studies that assert that although inclusive education policy is well stipulated to ensure students with disabilities receive quality education, schools are marred with low enrollments of students with disabilities. Moreover, limited access to appropriate education facilities for LWD continues due to insufficient teacher training on special needs education, geographic location of schools, inadequate physical resources, cultural perceptions, and weak identification and assessment procedures (Kiiru, 2018; Maiwa and Ngeno, 2017; Wafula et al., 2012).

Challenges in the implementation of inclusive education policy

Lack of modified physical resources

The second part of this study was geared towards finding out the structural readjustment challenges affecting the implementation of inclusive education policy. Responses from the majority (88%) of teachers cited lack of modified physical resources due to limited finances as a major

challenge to inclusive education policy implementation. None of the schools had adequately created a conducive and learner-friendly environment for students with disabilities. School storey building housed key resource rooms such as libraries, computer rooms, classes and dormitories, lacked alternative ramped pathways and so they posed a real challenge for not only learners living with disabilities but also for teachers and non-disabled learners. The researcher climbed to the third floor with two students living with physical disabilities; to conduct focus group session in one of the form four classes and the struggle was quite evident. The findings of this study are consistent with other international studies. For instance, Debele (2017) found that seventy primary schools in Ethiopia, randomly selected for the study lacked accessibility in their physical environment to implement inclusive education. Similarly, the study findings by Hemmingson and Borell (2002) in Swedish school found that a total of 34 students with physical disabilities aged between 10 and 19 faced mobility limitations due to infrastructure barriers.

Similarly, Mizunoya et al. (2018) assert that initial achievement of school access and participation continues to be a significant challenge for most students with disabilities due to both structural and attitudinal barriers. Lack of accessibility among learners with disabilities has a negative impact on enrollment (Wodon et al., 2018) and completion rates compared to the peers without disabilities (Male and Woden, 2017). The study findings by Oliva (2016) found that lack of physical access for students with disabilities to key resource areas was a major academic challenge limiting many students from qualifying and accessing tertiary education. According to UNICEF (2015), learners with disabilities in Uganda face many difficulties in accessing the washroom, libraries, classroom, and playground. This impacts their safety and they are not able to use the facilities. Their learning is greatly affected. Grahaman (2014) asserts that learners with disabilities have not benefitted from the increase of education sector budget, in Tanzania, hence most of the schools have poor infrastructure. In another study, Mafa (2012) cited that in Zimbabwe, buildings in most schools were not accessible to learners with disabilities mainly those in wheelchairs. Such challenges make

implementation of inclusive education complicated and the situation was made more complex by cultural barriers and negative attitudes toward learners living with disability.

The study findings also revealed that lack of resources was another factor closely related to lack of modified physical resources. Several teachers cited quite a number of schools lacked teaching and learning resources. Consistent with the aforementioned, Chimhenga (2016)'s study cited inadequate resources in form of human, financial, infrastructural and material resources as the main challenge in implementing inclusive practices in Zimbabwe. In Kenya, lack of resources such as instructional materials impacted negatively the implementation of inclusive education (Mwangi and Orodho, 2014). Similarly, Thwala (2015) in Swaziland identified lack of appropriate teaching and learning aids that would be necessary for inclusion of learners with disabilities.

Attitude towards inclusive education policy by parents and guardians

Majority of the teachers (76%) revealed that attitude of parents and guardians on the implementation inclusive education policy was a key challenge. In one of the focused group discussion, it was revealed that during Annual General Meetings parents meet to discuss school developmental issues which require an addition of school fees. Parents, being the main education financiers, support school projects with a lot of caution; hence anything that changes the school budget is highly discussed before it can be approved. Parents mostly tend to support projects that benefit the whole school. One focus group stated the following:

“.....parents do not support projects that benefit a few students. They count a great loss for such projects and will not support it due to high cost. For example, the school has several new buildings which lacked alternative ramped pathways in addition to the staircases, because they tend to increase the school budget (Probe) Messages from the AGM concerning increase of fees and other messages concerning the students are always communicated to us during assembly and even the amount of money added is communicated”

This implies that positive attitudes among key stakeholders are crucial towards the implementation of inclusive education policy and their perspective about the entire process is significant (Florian and Spratt 2013; Frankel et al., 2010; Singh, 2015). The Kenyan policy frameworks places parents and guardians as crucial education partners and collaborators whom the Ministry of Education works with in close association (RoK, 2009, 2012; 2018). During the implementation process various

partners and players are involved, among which parents/guardians are core associates (Puhan et al., 2014; Tesfaye et al., 2013). Research has shown that parental attitudes are dependent on several aspects. A study by de Boer et al. (2010) found that parents' attitudes are more positive when they have some form of education and some experience of dealing with learners with disabilities. Similarly, a study by Schwab (2018) in Germany showed that parents' attitudes are dependent on the type of disability, whereby learners with physical and sensory disabilities are highly supported, compared to learners with behavioral problems; and severe cognitive disabilities are considered more cynical (Paseka, 2017; Schwab, 2018). Research on poor environmental conditions suggests that negative emotions among parents of children with disabilities are not merely related to the child but the stigmatization and segregation that bring about painful emotions, in Uganda and Zimbabwe (Van der Mark and Verrest, 2014).

Poverty among parents of children with disabilities

The study findings revealed that about 85% parents of learners with disabilities come from poverty-stricken families. Teachers revealed that involving such parents to discuss matters related to social and academic welfare of their children with disabilities is a real challenge. In resource mobilization, Ministry of Education (RoK, 2009) recognized this as a challenge by stating that “.... many parents cannot afford assistive and functional devices needed by learners with special needs and disabilities as they are expensive and out of reach”. Besides, the researcher observed during the interviews that students with physical disabilities were using locally and sub-standard mobility devices, purely because their parents cannot afford to purchase standard mobility devices. The implication is that most of the devices are weak and can cause injury to the users. This was confirmed by one learner living with one shorter leg:

“.....the shoe of my short leg was made by a shoe maker in the market. The shoe is a little bigger and slightly looks different from the other one. When it rains, walking becomes a challenge as the shoe slides on wet and muddy paths. Every time the other leg grows, the shoe maker keeps on adding small pieces of rubber to balance with the growing leg. Due to this, the original shape is totally distorted”

The findings of this study are consistent with other global studies. For instance, van der Mark et al. (2019) found in the study he conducted in South Africa, that understanding the impact of poverty on parenting a disabled child is essential for understanding parental attitudes towards inclusion. According to UN (2018) a

Table 3. Suggestions by teachers to reduce the structural readjustment challenges.

Suggestions for overcoming resource challenges	Frequency
Adequate modified school infrastructure	41
Availability of finances	45
Effective refresher courses for teachers on inclusive education policy	46
Continuous professional development and support	48
Effective coordination mechanisms	35

person living with disability is a significant factor leading towards poverty, lower economic levels and social well-being. Disability and poverty are intertwined and need to be handled accordingly. Persons living with disabilities lag behind non-disabled persons in every Sustainable Development Goal indicator (World Bank, 2015). A case study by Leonard (2018), involving in-depth interviews conducted with 23 families in Malawi found poverty is a dominant theme and it contributes greatly for learners not being in school, in class, or having problems with learning. In addition, Palmer et al. (2015), in their study found that disability in itself comes with extra costs, and it is a cause of economic difficulty for individuals and families. A study by Mwangi and Orodho (2014) in Kenya cited socio-cultural issues among parents as major contributing factors to the negative attitudes towards the implementation of inclusive education of learners with disabilities. Furthermore, parents living in poor conditions and lack of access to essential amenities are reported to cause additional worry and concern in Turkey (Yagmurlu et al., 2015). A similar observation was made by Mwangi (2013) where teachers seemed to be stressed up by the challenges arising from lack of support from parents with children living with disabilities. Such parents appeared withdrawn due to stigmatization, resulting from other people treating their children's condition as a curse. The implication may be that parents may choose to stay at home with the child to avoid stigma, or take their children with disabilities to school and disappear.

Lack of teachers' skills on special needs education (SNE)

Majority of the teachers (72%) indicated the lack of skills on special needs education among teachers as a major challenge to inclusion. The study found out that few teachers (19%) have some form of training in Special Needs Education (SNE), while the majority (81%) has only professional training in the subjects they teach in secondary schools, which is a requirement by the Government of Kenya. All teachers, whether trained in special education needs or not, are required to monitor the learners in their classes, and to identify those who have special education needs. The Ministry of Education

policy frameworks (RoK, 2009, 2012, 2018) mandate all learning institutions to enroll all learners seeking admission regardless of their disabilities to access and participate in education. Teachers find teaching students with special needs a challenge because they are not trained to teach such learners. The findings of this study are in line with other studies which investigated teachers' skills on special education needs. For instance, a study by De Boer et al. (2011) shows that teachers have negative or neutral attitude towards the implementation of inclusive education policy as they feel incompetent to deal with issues related to learners with special education needs and disabilities. In confirmation, a study by Walton (2014) found that some teachers involved with students with disabilities found it challenging due to lack of formal training in special education. A study by Sibanda (2018) discovered that, even though several regular school teachers in Zimbabwe had not heard of inclusion and were never trained in special needs education, lacked comprehensive information and insights on inclusive education philosophy. Donohue and Bornman (2014) believe that lack of knowledge and skills among teachers is a major challenge in handling learners with a diverse education needs.

Teachers' suggestions on minimizing inclusive education challenges

The third question sought to identify the teachers' responses on ways of reducing the structural readjustment challenges as indicated in Table 3. From Table 3, 35 teachers suggested that effective and well-coordinated mechanism involving key stakeholders could increase the implementation inclusive education in schools. A significant, 48 teachers, cited continuous professional development for teachers to have confident when handling issues related to learners with special education needs. According to 46 teachers, provision of effective refresher courses on inclusive education policy is vital to enable teachers implement inclusive education policy as mandated by Education Policy Frameworks (RoK, 2009, 2012, 2018). Further, 45 teachers revealed that availability of finances to enable the schools provide teaching and learning resources necessary for quality

education. Finally, 41 teachers cited a need to modify and restructure the school environment and infrastructure to provide a learner friendly environment. It is remarkable from the results that the teachers in the study had realistic suggestions for addressing issues related to the implementation of inclusive education in schools. Hence, the top managers in the schools, in collaboration with key stakeholders, have an integral role to strategize for the purpose of implementing inclusive education policy.

Conclusion

Various structural modification challenges facing the implementation of inclusive education policy in public secondary schools were evident. The findings suggest possible link between the structural modification challenges and weak implementation of inclusive education policy. Thus, the study concluded that lack of effective structural modification approaches in schools were major obstacles to the implementation of inclusive education policy.

The study also established that the existing inclusive education policy framework guidelines on structural modification in schools are weak. The conclusion drawn is that a weak policy framework undermines the development of effective structural modification approaches that positively influenced the implementation of inclusive education in schools. Thus, the study concluded that weak inclusive education policy guidelines on structural modification led to lack of modified physical resources, poor attitudes of key stakeholders, poverty and lack of teachers' skills on Special Needs Education, which contributed to poor implementation of inclusive education.

RECOMMENDATIONS

- 1) The Government of Kenya should design clear policy structural modifications guidelines to be followed by public secondary schools to facilitate effective, consistent and coherent structural modification programs. This will enable schools to strategize with key stakeholders in creating a learner-friendly environment.
- 2) The Ministry of Education should develop a master plan for school reforms premised on clear inclusive policies, structures and practices, anchored on structural modification guidelines at all levels of education systems that support sustainable implementation of inclusive education policy.
- 3) The County Education Board should establish an inclusive education coordinating committee in partnership with key stakeholders to identify and eliminate structural and systemic obstacles. This will enable them to promote policies and practices that support structural modification

approaches necessary for the implementation of inclusive education in schools.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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