Accessibility to Inclusive Education in Arusha Region Public Secondary Schools, Tanzania

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Abstract: This study investigated on accessibility to inclusive education in Public Secondary Schools in Arusha, Tanzania. A total of 360 teachers and students in three sampled districts filled the questionnaire. Data was analyzed using descriptive and inferential statistics. Validity was ensured through expert judgment and reliability of the questionnaire ranged between 0.64 and 0.83 Cronbach’s Alpha. The study concluded that schools comprise of different learners including those with disability and teachers are prepared to include learners with special needs. Teachers and students are prepared for inclusive education and have positive attitude toward learners with disability. However, there is non-availability of reading materials for the blind and the school ground is not favorable for them to walk comfortably. There are no wheel chairs for physically challenged students and schools have no ramps and special toilets for learners with disability. Based on these findings, it is recommended that school administration should provide teachers with workshops and seminars on how learners with special needs can be included in the learning process. Teachers should provide appropriate location for visually impaired to sit and ensure availability of reading facilities for the blind. Schools in collaboration with parents should ensure availability of wheel chairs for physically challenged and prepare ramps and special toilet facilities for learners with disability. Finally, schools should increase cooperation with homes on how to assist emotionally challenged learners.

Keywords: Accessibility, Inclusive, Education, Special Needs, Arusha, Tanzania

INTRODUCTION

Inclusive education is a process of participating students in the learning process regardless of their diverse backgrounds [1]. It accommodates learners regardless of their physical, intellectual, social, emotional, and linguistic or any other condition that can inhibit learning in order to enable learners with specific challenges to access educational programs in the mainstream. Therefore, inclusion is a process whereby all learners including those with disabilities are educated together without any discrimination and marginalization [2]. Inclusion has increasingly gained attention internationally, and as a result, schools and classrooms are under instructional transformation to become inclusive regardless of differences in learning, ability, and levels of impairment. It is important to note that inclusive education has to replace special education so that learners with disabilities could equally get the intended benefits of education. Inclusion is a step further in mainstreaming, as it presents a means by which a school attempts to respond to all pupils as individuals, by reconsidering and structuring its curricular and allocating resources to enhance equal opportunity to learn. Inclusion is further regarded as part of a wider struggle against violation of human rights and discrimination. It is a dynamic approach of responding to pupils' diversity and of seeing individual differences not as problems but as opportunities for enriching learning. Therefore, the major purpose for inclusive education is to remove barriers to learning in order to promote accelerated access and participation of all learners without any shade of discrimination [3,4] Garuba [5] as cited in Oluremi [6].

According to Joshi [7] inclusive education leads learners to move in better social cohesive groups, creating a room for disabled learners to be more emotionally stable in the process of learning because with such arrangement, they may feel that they are not segregated and they are in mainstream hence they can socialize with other learners and learn more comfortably. Despite these great benefits of inclusive education, there are challenges which are likely to be experienced by learners in the process of inclusion. A study done in Dodoma, Tanzania concerning awareness of classroom teachers on the pupils with disabilities shows that few teachers were aware of the presence of children with disabilities but they were not aware on how to provide the appropriate instruction for their learning in inclusive education [8], something which leads into inaccessibility to inclusive education. According to Eunice and Orodho [9] such challenges...
include lack of physical and instructional facilities, lack of qualified teachers to handle inclusive education and negative attitudes regarding learners with special needs. According to Gathumbi, Ayot, Kimemia and Ondigi [10] challenges facing inclusive education include those related to physical infrastructure, unfavorable instructional resources and lack of teacher training on pedagogy and knowledge on how to handle students with special needs. Another serious challenge which may hinder inclusive education could be lack of support from fellow learners. Knowing this, David, Nanjwan, and Amalu [11], recommended that learners without disabilities should cooperate with those with disabilities.

The aforementioned challenges facing inclusive education call for serious intervention by researchers so that learners with special needs may have equal chances to realize their full potentials. Particularly, a number of suggestions have been proposed. A study done in South Africa concerning independent schools that experience barriers to learning revealed that most schools experience various barriers to inclusive learning. The study recommended that schools should be provided with specialists and appropriate buildings and infrastructures in order to ensure access by persons using wheelchairs and various instructional practices [12]. The study concerning Comparative Perspective on teachers’ attitudes on inclusive education in South Africa revealed that there are negative attitudes to inclusive education. Therefore, positive attitude toward learners with special needs should be emphasized in order to have accessible inclusive education. While the issue of non-inclusion is global, Tanzania cannot be exceptional. There are many cases of learners with special needs in the country to be excluded. This has been revealed by Child Development Policy Tanzania [13], which indicates prevailing discrimination against children. Particularly, “there is discrimination which results from the child’s lifestyle and physical condition, for example poor or affluent; righteousness, illnesses, disability ... or vulnerable.” Besides, “disabled children have low ... opportunities to be registered for schooling as compared to other children” (Ibid). In response to this problem, this study sought to investigate on accessibility to inclusive education in Public Secondary Schools in Arusha Region, Tanzania.

LITERATURE REVIEW

This section presented both theoretical and empirical literature reviews about the issue of accessibility to inclusive education.

Theoretical Underpinnings for Inclusive Education

It can be generally agreed that one of the identities of people with disability is discrimination. People with disability are discriminated in various sectors. For instance, in Education there are special schools for people with disabilities. This creates the environment of discrimination to such learners with special need but the environment of inclusive education removes this discrimination. The matter becomes worse in the context of Africa where the child has always been seen as a source of labor that brings income to the family. Thus a disabled child may not be able to work for the family and in such situations, the family often responds negatively to the situation.

This study is supported by the theory of social model of disabilities [14, 15] which looks at disability as a result of interaction between people with disability and environment filled with physical, attitudinal and social barriers. The theory holds that inclusive education creates the environment of socialization and interaction to the learners with disability that leads to their development. According to Bandura [16], people must feel confident in their field in order to be competent and to succeed. Provision of inclusive education creates reinforcement to the people with disability which leads them to feel confident and competent, hence succeed in their life. Siebers [17] presents three agendas on the theory of disability. One among them is that disability is minority. The theory suggests that disabled people are regarded as minority, something which must be addressed. Siebers see disability as not a physical or mental defect but a cultural and minority identity. This calls for transformation of school stakeholders which include teachers, learners themselves and other people in the society who may come into contact with learners with special needs.

Many researchers viewed inclusive education or inclusion as the philosophy and practice for educating students with disabilities in general education settings [18-21] as cited from Ajuwon [22]. The study of Ajuwon show that in inclusion, the learners with disabilities benefit from learning in a regular classroom, rather than placing a child in an isolated setting (Special schools). Different types of disabilities such as physical impairment, sensory impairment, hearing and visual impairment need inclusive education. This is supported by Joshi [7] in his study on emotional Stability of Visual Impaired in India which shows that learners with visual impairment, for instance, are more stable emotionally when they study in inclusive setup rather than studying in special schools. This shows how benefit and important it is in having inclusive education.

Facilities and Learning Resources

Facilities for inclusion are very essential for accessibility to inclusive education. Bubpha, Erawan, and Saihong [23], in their study in Thailand, conclude that one of principal models of inclusive

education is considering and selecting suitable curriculum, teaching media, learning activities, facilities and innovations for inclusive class instructional management. This can, even in our country Tanzania, enable the implementation and accessibility to inclusive education. So when there is suitable curriculum, facilities and teaching media for the inclusion, the inclusive education will take place more effectively.

Adeniyi, Owolabi and Olojede [24] in their study about Determinants of successful Inclusive Education in Nigeria concluded that stakeholders should ensure the availability of material, proper mind-set, manpower, experience and qualification of professionals competent for the implementation of inclusive education practice in the country. Inclusive education needs a lot, such as parent/ community support, materials, manpower, mindset, experience and proper qualifications.

Different types of resources are needed for inclusive education, such as accessible environment for wheelchair users, sustainable surroundings for girls and appropriate school buildings. According to Okongo, Ngao, Rop and Nyongesa [25], availability of teaching and learning resources affect the implementation of inclusive education in Kenya. Learning materials or assistive devices, relevant curriculum design and development, good and adequately trained teachers are important resources needed for effective inclusion. Therefore effective implementation of inclusive education needs adequate teaching and learning resources.

**Barriers to Inclusion**

Studies on inclusive education have been done regionally by different researchers. A study done in Ghana concerning barriers to inclusion contended that there are some factors which inhibit children with disabilities to access their education. These barriers include discrimination, cultural beliefs, unavailability of resources and lack of parental involvement [1]. Discrimination arises due to lack of understanding and knowledge of its implications, fear of difference, fear of contamination or negative cultural view of disability. When disabled learners are discriminated or isolated by putting them in special schools, this affects them psychologically and learning sometimes will not take place as compared to when they are in the inclusive education. Cultural beliefs also are the barrier to the inclusive education since most communities believe in superstition as connected to disabled people. Also lack of parental involvement in their children with disabilities leads to the inaccessibility of inclusive education.

Studies on inclusion have also been done in Tanzania by different researchers. A study done in Dodoma concerning awareness of classroom teachers of the pupils with disabilities shows that few teachers were aware of the presence of children with disabilities but they were not aware on how to provide appropriate instruction for their learning in inclusive education [8]. Therefore, awareness is very important issue for proper inclusion. When teachers are not aware of their disabled learners and how to treat them and which instruction will be appropriate for their learning, effective learning will not take place. Thus, lack of adequate teacher training to handle both disabled and non-disabled learners in the same class leads to the inaccessible inclusive education.

Eunice and Orodho [9] in their study in Kenya show that the barriers faced in inclusive education in secondary schools include lack of physical and instructional facilities suitable for inclusive education, lack of qualified teachers to handle the inclusive education and negative attitudes by parents regarding disabled learners, amongst others. Lack of physical and instructional facilities such as wheelchairs, assistive devices, appropriate school buildings, poorly and inadequately trained teachers to facilitate the inaccessibility of inclusive education. These suggest that existing barriers of inclusive education hinder the accessibility of inclusive education. Therefore all barriers of inclusive education should be addressed for the accessibility of disabled ‘students’ learning.

**Cultural Bias**

Negative attitude is the most dangerous barrier to inclusive education particularly to those with disabilities. Events in history show how disabled persons were badly treated; they were treated with a lot of contempt, they were maltreated, and in some cases they were killed [26]. In most traditional African societies including Tanzania, the birth of a child with any form of disability brings a lot of emotional stress and shame to family members as a result of stigma attached to such conditions. Ill the treatments of disabled people were considered justifiable due to the strong belief that disability was the result of evil placed on an individual from the gods. Assumption of traditional African philosophies is that, birth of a child with disabilities is a bad act of bewitchment [27]. This is because in most of African cultures, children have always been seen as a source of labour that brings income to the family. Thus a disabled child may not be able to work for the family and in such situations, the family often responds negatively to the situation. In country where at least a lot of population worship lesser gods and sensitized on the role of traditional beliefs and practices, a child born with only one leg, for instance, may not have been allowed to live long past birth because of taboos and supernatural phenomena associated with having a disability [28].
Therefore, cultural beliefs about disabilities continue to interfere in the provision of social welfare services such as education to persons with disabilities. The discussions on cultural bias indicate that, educating a child with disabilities in Africa is affected by socio-cultural values. Disabled children are seen as evil to a very large extent, because society attributes it to curses from the gods. Therefore, cultural factors shape the attitudes of people toward persons with disabilities throughout history. These hinder the development of the children with disabilities in the society as a result of denied opportunities in life.

**Preparedness for Inclusive Education**

Preparation or readiness of the teachers and learners’ mind-set to accept learners with various ranges of disabilities is very essential for accessibility to inclusive education. Malak [29] in his study in Bangladesh supports the idea of preparedness for effective inclusive education. He suggests that preparation of teachers’ performance in communication and classroom management improve inclusive teaching skills to learners with disabilities. With this regard, teachers should be given special training on different types of disabilities such as physical disabilities, visual impairment, hearing impairment and learning impairment in order for them to reach such kind of learners at the points of their needs. This will help the teachers to interact with their learners which will make learning to take place easily. Leonard, Eskay, Onu, Adani and Josephine [30] in their study also support that the preparedness for learners with hearing impairment should be given priority. Learners with disability (hearing impairment) should be given training in lip reading and teachers should be participated and interacted effectively in inclusive education classroom.

Learners with special needs are grouped in to handicaps, ability or behavior. This include visually impaired, Hearing impaired, Physically challenged, Mentally challenged, Gifted and Talented children, Children with emotional and behavioural difficulties, Children living under difficult circumstances, children with communication difficulties, and Multiple handicapped child [31]. Preparedness is very essential according to this group. Teacher should give preferential seating in the classroom for hearing impaired and face the child when talking to them. Also you should allow the learners to learn by doing for the visually impaired and ensure full lightness in the classroom for them. This will prepare the disability learners to get their education easily hence accessible in inclusive education.

The success of inclusive education depends on teachers attitudes toward inclusion. This is indicated by recent researches [32, 33] Van Reusen, Shosho, & Bonker, [34] in Mdikana, Ntshangase and Mayekiso [35].

Generally, the success of inclusive education correlates to positive attitudes of the teacher towards inclusion and the failure to inclusive education correlates to negative attitudes of the teacher towards inclusion. Therefore, positive teachers’ attitude is very essential for a success of inclusive education in various parts of the world and particularly in Tanzania.

**Government Policy on Inclusive Education**

Inclusive education has been expressed in various national policies, Legislation and Guidelines as in the Tanzania Education Act [36] which stipulates a compulsory schooling and regular attendance at primary level of education. But this Education Act does not provide affirmative action in relation to any specific groups or situations but it asserts that all people have opportunity to obtain education and no one will be denied to schooling for the reason only for his race, religion or political or ideological belief. The National Policy of Tanzania on Disability [37] urges the Government, in collaboration with stakeholders, to provide a conducive environment for inclusive education which would take care of the special needs of children with disabilities. Further, the Policy emphasizes the need to improve and increase skills training for persons with disabilities, in settings that accommodate disabled and non-disabled trainees.

Also the Tanzania Education and Training Policy [38] endorse the right to pre-primary education and adult literacy to all citizens as a basic right. The policy promotes and facilitates access to disabled people. The policy also facilitates proper training of teachers for pre-primary schools. It recognizes special teacher education by pointing out the necessity of training of teachers of learners with special needs.

The Tanzania child development Policy of [13] aims at protecting children’s rights as expressed on the UN convention on the rights of the child. The policy recognizes that measures need to be taken to ensure that all children of school going age are enrolled. It further emphasizes that it is the responsibility of the Ministry of Education and Vocational Training to make education opportunities available to those who are above primary school age, who have dropped out or have been taken out of school and for those who never went to school.

Cortiella [39] as cited by UNESCO’s [2] indicates that inclusive education is very important since it provides opportunity to all students to learn together. She argues that all students, regardless of their physical or any kind of status can learn and benefit from education.

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The Tanzania National Strategy for growth and Reduction of Poverty (NSGRP)-Mkukuta, identified disabled people among cross-cutting issues. It recognizes the geographical and demographic factor which may cause poverty. The program aims at ensuring that all children including disabled people are able to access education.

RESEARCH METHODOLOGY

Research Design

The researchers employed survey research design to determine the accessibility to inclusive education in Public A-level secondary schools in Arusha Region. The quantitative technique design enabled them to obtain sufficient information which was used to measure the level of inclusiveness. This descriptive-correlational kind of study builds on the comparative designs which simply describe the phenomena as they occur in two or more groups or among two or more variables associated with the phenomena [40]. According to Grove, Burns, and Gray [41], descriptive-correlational designs is used when researchers are interested in explaining the degree and characteristics of relationships that exist among variable or groups.

Population and Sampling

The population for the study comprised of 360 teachers and students in Arusha Region. Since there are six Districts in the region, three Districts with a total of six schools were systematic selected to construct the sample. The questionnaire was distributed to participants who filled and returned.

Data Analysis

The data collected was coded and analyzed using both descriptive and inferential statistics. Descriptive Statistics involved percentages, mean scores and standard deviations of various responses while inferential statistics involved Pearson product moment correlation coefficient, t-test and Analysis of Variance (ANOVA). The researcher used the SPSS program to analysis data. This was followed by thorough discussion and interpretation. The scale of interpretation was as follows: 0.50-1.49 = strongly disagree, 1.50-2.49 = Disagree, 2.50-3.49 = not sure, 3.50-4.49 = agree and 4.50-5.49 = strongly agree.

Validity and Reliability

Validity is the extent to which the instrument measures what is intended to measure [42]. This was ensured through expert judgment in a group of three research experts went through the questionnaire in relation to research questions and recommend where necessary adjustments were needed. Adjustments were done accordingly before data collection. Reliability, on the other hand, is the degree to which an assessment tool produces stable and consistent results. According to Merrian [43], reliability is the extent to which research findings can be replicated and if repeated will yield similar results. In order to ensure this, a pilot study was conducted to forty students in one school which is not part of the study sample. Analysis was done through Statistical Package for Social Sciences to determine acceptable cronbach’s Alpha in each category of the questionnaire before the actual data collection.

ANALYSIS AND INTERPRETATION OF DATA

This part analyzed and interpreted data which was collected through questionnaire and focus group discussion. There were six research questions which guided this study. Some of these questions were analyzed through descriptive statistics, particularly mean scores and standard deviation while others called for hypothesis testing and therefore, the use of inferential statistics as follows:

1. What is the level of teachers' preparedness for inclusive education in Arusha Region A-Level Secondary Schools?

This research question was analyzed through Observation Schedule, questionnaire and Focus Group Discussion data. The observation schedule revealed that learners with disability are included in the schools under investigation and this was confirmed by the Focus Group Discussion where one respondent had this to say: “Our school comprises of different types of students including those with disability, for example, blind and those with low vision.” Since this research question sought to determine level of teachers’ preparedness for inclusive education, students and teachers responded to it through questionnaire to indicate perceived level of teachers’ preparedness for inclusive education. The level of preparedness appears in terms of mean score and standard deviation under the following interpretation: 4.50-5.00 = highly prepared, 3.50-4.49=prepared, 2.50-3.49 = not sure, 1.50-2.49 =slightly prepared and 1.00-1.49 = not prepared.
As it can be observed in Table 1, the mean score for all five items was between 3.05 and 4.49, meaning respondents regarded teachers to be prepared for inclusive education. Particularly, there is proper handling of learners with disability (M=4.2472, Std Dev 1.02476), there is no hatred to children with disability (M=4.1497, Std Dev =.98295), there is faire treatment of learners with disability (M=4.1457, Std Dev =1.03374), there is a tendency of welcoming learners with disability (M=4.0345, Std Dev =1.08645) and there is no teachers’ anger with slow learners (M=3.6884, Std Dev =1.24741). This is something worth noting because preparedness of teachers is very important for inclusive education as revealed by literature which states that preparedness of teachers creates room for inclusive teaching to learners with disabilities [29]. Leonard, Eskay, Onu, Adani and Josephine [30] add that preparedness to include learners with hearing impairment, particularly, should be given priority. They should be given training in lip reading and teachers should know how to interact effectively with such kind of learners. Further, preparedness of teachers to receive learners of different types is very essential for them to have their learning in the mainstream rather than having them taught separately. Thungu, Wandera, Gachie and Alumande [31] also add that teacher should give preferential seating in the classroom for hearing impaired and face such kind of learners when teaching. It is very important to face the learners with hearing impairment since they learn better through facial expressions. Since they can’t hear properly, it is very important to face them so that they can learn effectively.

2. Is there significant difference in the level of teachers’ preparedness for inclusive education as perceived by teachers and students?

Having determined the level of teachers’ preparedness for inclusive education, it was necessary to determine if there is any difference in teachers’ preparedness as perceived by teachers and students. This research question called for testing of a null hypothesis which states: there is no significant difference in the level of teachers’ preparedness for inclusive education as perceived by teachers and students.

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Table 1: Level of Preparedness for Inclusive Education

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Handling learners without discrimination</td>
<td>4.2472</td>
<td>1.02476</td>
<td>Prepared</td>
</tr>
<tr>
<td>2</td>
<td>Lack of hatred to children with disabilities</td>
<td>4.1497</td>
<td>.98295</td>
<td>Prepared</td>
</tr>
<tr>
<td>3</td>
<td>Fair treatment of learners with disabilities</td>
<td>4.1457</td>
<td>1.03374</td>
<td>Prepared</td>
</tr>
<tr>
<td>4</td>
<td>Welcoming children with disabilities</td>
<td>4.0345</td>
<td>1.08645</td>
<td>Prepared</td>
</tr>
<tr>
<td>5</td>
<td>Lack of anger with slow learners</td>
<td>3.6884</td>
<td>1.24741</td>
<td>Prepared</td>
</tr>
</tbody>
</table>
```

```
Table 2: Group Statistics for Teachers’ Preparedness

<table>
<thead>
<tr>
<th>What is your status?</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>214</td>
<td>3.9952</td>
<td>.76457</td>
<td>.05226</td>
</tr>
<tr>
<td>Teachers</td>
<td>146</td>
<td>4.1405</td>
<td>.81189</td>
<td>.06719</td>
</tr>
</tbody>
</table>
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This null hypothesis was tested through t-test. In Table 2, the mean score for teachers and students was between 3.50 and 4.49 meaning both groups considered teachers to be prepared for inclusive education.
**Table 3: Independent Sample t-test for Teachers’ Preparedness**

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>F  .266</td>
<td>Sig. .606</td>
<td>T -1.726</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>F -1.707</td>
<td>Sig .089</td>
<td>T 299.022</td>
</tr>
</tbody>
</table>

However, teachers had slightly higher mean score (4.1405) as compared to students (3.9952) but the sig of 0.85 in Table 3, which is greater than the critical value (0.05) suggests the mean score difference happens by chance and therefore, we accept the null hypothesis that there is no significant difference in the level of teachers’ preparedness for inclusive education as perceived by teachers and students, both groups considering teachers to be prepared for inclusive education. According to Joshi [7] inclusive education leads learners to get fully involved in the learning process. It creates a room for disabled learners to be more emotionally stable in the process of teaching and learning because with such arrangement, learners with disability may feel that they are not segregated and they are in mainstream hence they can socialize with other learners and learn comfortably.

Many researchers regard inclusive education as the philosophy and practice for educating students with disabilities in general education settings [18-21] as cited in Ajuwon [22]. The study of Ajuwon shows that in inclusion, the learners with disabilities benefit from learning in a regular classroom, rather than placing a child in an isolated setting (Special schools). Therefore, perceived preparedness of teachers to include learners with disabilities can highly benefit learners and bring about effective learning to such kind of less advantage learners.

3. **What is the attitude of teachers and students toward learners with disability in Arusha Region Secondary Schools?**

This research question investigated on attitude of teachers and students toward learners with disability. Items in the questionnaire were negatively stated in favor of negative attitude toward learners with disability and the mean scores of respondents was interpreted as follows: 4.50-5.00 = strongly agree, 3.50-4.49 = agree, 2.50-3.49 = not sure, 1.50-2.49 = disagree and 1.00-1.49 = strongly disagree.

According to information from Table 4, mean score to all five items was between 1.30 and 1.40 meaning respondents disagreed with all items. Particularly, respondents strongly disagreed that having a child with disability is a curse from God (M=1.4750, Std Dev =.83745), a child with disability is a punishment from God (M=1.4581, Std Dev=.87427), a child with disability may die earlier than a child without disability (M=1.4466, Std Dev =.78001), a child with disability is a god that came in human form (M=1.3799, Std Dev =.87980) and that disability is a result of bewitchment from mother’s womb (M=1.3696, Std Dev =.78293).

**Table 4: Attitude of Teachers and Students toward Learners with Disability**

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Having a child with disability can bring curse to the society</td>
<td>1.4750</td>
<td>.83745</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>2</td>
<td>A child with disability is a punishment from gods</td>
<td>1.4581</td>
<td>.87427</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>3</td>
<td>A child with disability may die earlier than a child without disability</td>
<td>1.4466</td>
<td>.78001</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>4</td>
<td>A child with disability is a god that came in human form</td>
<td>1.3799</td>
<td>.87980</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>5</td>
<td>Disability is a result of bewitchment from mother’s womb</td>
<td>1.3696</td>
<td>.78293</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

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Therefore, teachers and students in schools under investigation had positive attitude toward learners with disability. Positive attitude ensures the right educational atmosphere for children with disabilities to enjoy learning just like learners without disability and in that way progress well in schools. This is a strong factor for successful inclusion of special education in regular schools.

4. Is there significant difference between teachers and students in their attitude toward learners with disability in Arusha Region Secondary Schools?

Having determined the attitude of respondents toward learners with disability, it was deemed necessary to determine if there is any difference in their attitude toward learners with disability. This research question called for testing of a null hypothesis which states: there is no significant difference between teachers and students in the attitude toward learners with disability in Arusha Region Secondary Schools.

Table 5: Group Statistics for Attitude toward Learners with Disability

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>214</td>
<td>1.4234</td>
<td>.56485</td>
<td>.03861</td>
</tr>
<tr>
<td>Teachers</td>
<td>146</td>
<td>1.4388</td>
<td>.61574</td>
<td>.05096</td>
</tr>
</tbody>
</table>

Items in the questionnaire were negatively stated in favor of negative attitude toward learners with disability but the mean score of both groups ranged between 1.00 and 1.49 meaning they all strongly disagree with the statements. Thus both teachers and students have positive attitudes toward learners with disability. Positive attitude towards learners with disabilities leads to accessibility to inclusive education. The success of inclusive education depends on teachers attitudes toward inclusion. This is indicated by Cook, Tankersley, Cook and Landrum [32] Salend, [31] Van Reusen, Shosho and Bonker [49] in Mdikana, Ntshangase and Mayekiso [35].

The Sig. of .809 in Table 6 also is greater than the critical value (0.05) meaning that we accept the null hypothesis that there is no significant difference between teachers and students in the attitude toward learners with disability in Arusha Region Secondary Schools.

Table 6: Independent Sample t-test for Attitude toward Learners with Disability

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Attitude</td>
<td>Equal variances assumed</td>
<td>4.927</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-.242</td>
</tr>
</tbody>
</table>

The success of inclusive education depends on teachers’ and learners’ attitudes toward inclusion. This is indicated by recent research [32, 33, 44] in Mdikana, Ntshangase and Mayekiso [35]. Therefore, positive teachers’ attitude is very essential for a success of inclusive education in various parts of the world and particularly in Tanzania.

5. To what extent are different types of learners with disability included in Arusha Region Secondary Schools?

This research question sought to determine the extent to which different types of learners in Arusha Region Secondary Schools are included in the process of learning. Students and teachers responded to this question through questionnaire and their mean scores were interpreted as follows: 4.50-5.00 = strongly agree, 3.50-4.49, agree, 2.50-3.49 = not sure, 1.50-2.49 = disagree and 1.00-1.49 = strongly disagree.

1. Visually Impaired Learners

Table 7 indicates mean score to six items which rated inclusiveness of visually impaired learners. The mean score of four items ranged between 3.50-4.49 meaning respondents agreed that visually impaired are included in the learning process while in two items,
respondents were not sure if the visually impaired are included in the learning process.

Particularly, respondents agreed that the chalkboards are large enough for effective reading (M=4.0787, Std. Dev = 1.04787). This is worth noting because when chalkboards are large enough, the visually impaired can be able to see well than when the chalkboards are small. They also agreed that the classes have enough light (M=4.0223, Std. Dev =1.13491).

Availability of enough light is another added advantage for visually impaired due to their inability to see properly in darker rooms. Furthermore, it was agreed that books, charts and maps are in large print for learners to read properly (M=3.84429, Std Dev = 1.21871) and visually impaired students have tinted glasses to avoid unpleasant light (M=3.6000, Std Dev = 1.21829). All these indicate good atmosphere for learners with visual impairment to be included in the teaching-learning process.

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The chalkboard is large enough for effective reading</td>
<td>4.0787</td>
<td>1.04787</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>My classroom has enough light</td>
<td>4.0223</td>
<td>1.13491</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Books, charts and maps are in large print for learners to read properly</td>
<td>3.8429</td>
<td>1.21871</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Visually impaired students have tinted glasses to avoid unpleasant light</td>
<td>3.6000</td>
<td>1.21829</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Teachers encourage the development and use of listening skills</td>
<td>3.4394</td>
<td>1.19491</td>
<td>Not Sure</td>
</tr>
<tr>
<td>6</td>
<td>There is appropriate location for visually impaired students to sit</td>
<td>3.3277</td>
<td>1.22993</td>
<td>Not Sure</td>
</tr>
</tbody>
</table>

Respondents, however, were not sure whether teachers encouraged development and use of listening skills (M=3.4394, Std Dev = 1.19491) and whether there is appropriate location for visually impaired learners to sit (M= 3.3277, Std Dev = 1.22993). Listening skills are very essential for learners with visually impairment since this type of learners receives information better through hearing than through seeing. The uncertainty whether learners with visually impairment have appropriate location to sit is another challenge which may suggest non-inclusiveness. This kind of uncertainty may also suggest lack of seriousness to include the visually impaired in the teaching-learning process and is against the fact that these learners need to sit in front chairs for them to read properly from the chalkboard. According to Thungu, Wandera, Gachie and Alumande [31], teachers should give preferential seating in the classroom for hearing impaired and they should face the children when talking to them. Also they should give opportunities for visually impaired to learn by doing and ensure full light in the classroom. This will prepare the learners to get their education easily hence accessibility will be maximized. This is also supported by Joshi [7] in his study findings about Emotional Stability of Visual Impaired in India. The findings contend that learners with visual impairment are more stable emotionally when they study in inclusive setup rather than studying in special schools.

Apart from not being sure whether the visually impaired have special locations to sit, and whether teachers encourage improvement of listening skills, the Focus Group Discussion revealed specific challenges faced by the visually impaired learners. Particularly, respondents revealed non-availability of reading materials for the blind. It was particularly expressed that “we spend a lot of time for someone to read for us. Also there are limited Braille machines to assist us in reading, so we spend much time waiting for Braille Machines until someone else has finished using it.

Another respondent admitted the fact that “our school invites blind, low vision and physically challenged but the environment is very difficult; there are a lot of stones so one can fall down while walking.” Another respondent added: “The structure of the school is not friendly to the blind. If you don’t have someone to escort you, you can’t walk especially during the night because the structure of the school is not leveled.” This suggests that the school ground is not favorable for the blind and low vision learners to walk comfortably.

Another respondent revealed that “one of challenges is in reading especially in mathematic subject. The teacher comes in class and starts teaching without considering that we don’t see well on the blackboard. The teacher continues teaching while we are not seeing, so, as a result, we fail in our subjects.” Here we now see the importance of special sitting arrangement for visually impaired learners. This is because when the teacher faces them directly, he or she can easily discover their struggle in reading from the chalkboard and find ways to assist them. Thus, even though respondents perceived involvement of visually impaired in the teaching-learning process, something needs to be done in terms of sitting arrangement, improvement of listening skills and favorable ground for easy movement.

Available Online:  [http://scholarsmepub.com/sjhss/](http://scholarsmepub.com/sjhss/)
Hearing Impaired Learners

Table 8 indicates respondents’ mean score to five items which rated inclusiveness of hearing impaired learners. Respondents agreed that teachers face learners during teaching and learning process (M=4.2366, Std. Dev = .90217) and that there is the use of peers to assist other learners in class routine (M=3.5549, Std. Dev = 1.18092). This is supported by Thungu, Wandera, Gachie and Alumande [31] that the teacher should give preferential seating in the classroom for hearing impaired and face them when teaching. Leonard, Eskay, Onu, Adani and Josephine [30] further argued that, the learners with hearing impairment should be given priority. They should be given training in lip reading and teachers should include them and increase interaction between them and the other learners.

Respondents, however, were not sure whether teachers use visual aids and illustrations as much as needed (M=3.4258, Std. Dev =1.32530), teachers use sign language and non-verbal clues while teaching (M=3.1102, Std. Dev = 1.39678) and whether teachers use Public Address System (M= 2.8743, Std. Dev = 1.26045). When learners with disabilities lack learning aids and supportive appliances, their learning effectiveness is reduced and as the result, they may feel inferior to their normal learners. They have to continuously play catch up due to their slow learning pace, due to not being able to hear properly, not seeing properly, not being able to express themselves properly, or writing slower than other learners, and under unfriendly facilities results in many of them failing to pass exams. Teachers also need to repeat things that learners with disabilities have not heard properly.

Table 8: Inclusion of Hearing Impaired Learners

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teacher face learners during teaching and learning process</td>
<td>4.2366</td>
<td>.90217</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>There is the use of peers to assist other learners in class routines</td>
<td>3.5549</td>
<td>1.18092</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Teachers use visual aids and illustrations as much as needed</td>
<td>3.4258</td>
<td>1.3253</td>
<td>Not Sure</td>
</tr>
<tr>
<td>4</td>
<td>Teachers use sign language and non-verbal clues while teaching</td>
<td>3.1102</td>
<td>1.39678</td>
<td>Not Sure</td>
</tr>
<tr>
<td>5</td>
<td>Teacher use Public Address System</td>
<td>2.8743</td>
<td>1.26045</td>
<td>Not Sure</td>
</tr>
</tbody>
</table>

Physically Challenged

Table 9 indicates respondents’ mean score to nine items which rated inclusiveness of physically challenged learners. Respondents agreed that there is safety in the classrooms and school environment (M=3.9218, Std. Dev = 1.11748), teachers help learners to accept their present situations (M=3.8687, Std. Dev = .94206), there is provision for extra time to complete learning tasks for slow learners (M=3.8659, Std. Dev = 1.15902), there are physical education activities (M=3.6964, Std. Dev =1.39021) and students with albinism use hats to avoid direct sun light (M=3.5282, Std. Dev = 1.26650). This kind of situation is commendable and suggests that teachers are well prepared to meet challenges of marginalized learners. This is also supported by Wamae and Kang’ethe-Kamau [45] in their research findings which suggest that professional training of teachers is one of the key factors for successful inclusion of children with disability.

Table 9: Inclusion of Physically Challenged Learners

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is safety in the classroom and school environment</td>
<td>3.9218</td>
<td>1.11748</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Teachers help learners to accept their present physical conditions</td>
<td>3.8687</td>
<td>.94206</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>There is provision for extra time to complete learning tasks</td>
<td>3.8659</td>
<td>1.15902</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>There are physical education activities</td>
<td>3.6964</td>
<td>1.39021</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Students with albinism use hats to avoid direct sunlight</td>
<td>3.5282</td>
<td>1.26650</td>
<td>Agree</td>
</tr>
<tr>
<td>6</td>
<td>At class doors there is flat floor for easy entry by physically challenged</td>
<td>2.5994</td>
<td>1.45320</td>
<td>Not Sure</td>
</tr>
<tr>
<td>7</td>
<td>There are wheel chairs for physically challenged students</td>
<td>2.2235</td>
<td>1.23683</td>
<td>Disagree</td>
</tr>
<tr>
<td>8</td>
<td>School have ramps and toilet facilities for learners with disability</td>
<td>2.0170</td>
<td>1.12802</td>
<td>Disagree</td>
</tr>
<tr>
<td>9</td>
<td>School have special toilets for physically challenged</td>
<td>1.9415</td>
<td>1.14063</td>
<td>Disagree</td>
</tr>
</tbody>
</table>
Questionnaire Respondents, however, were not sure whether there are flat floors at class doors for easy entry by physically challenged learners (M=2.5994, Std. Dev =1.45320) and information from the Focus Group Discussion revealed non-existence of such facilities. Particularly, it was said that “learners with physical challenges face serious problems when moving from one building to another in the school compound.” Unavailability of such facilities creates unfavorable environment that may affect the rate of learning, thus a barrier to inclusive education.

On the contrary, respondents disagreed that there are wheel chairs for physically challenged students (M=2.2235, Std. Dev = 1.23683), schools have ramps and toilet facilities for learners with disability (M=2.0170, Std. Dev = 1.12802) and that schools have special toilets for physically challenged learners (M=1.94415, Std. Dev = 1.14063). Mantey [1] argue that unavailability of resources like wheel chairs, learning materials, assistive devices and trained teachers can cause the barriers to the inclusive education. The absence of instructional materials like, Braille equipments for the blind, text books, sports equipment and other teaching aids to suit the special learning needs of learners with disabilities can also affect the enrolment of learners with disabilities.

### Learners with Communication Difficulties

Table 10 indicates respondents’ mean score to three items which rated inclusiveness of learners with communication difficulties.

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Teachers give learners opportunity for learners to speak without interruptions</td>
<td>4.0425</td>
<td>.98622</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Teacher give rewards for speech improvement</td>
<td>2.9380</td>
<td>1.33471</td>
<td>Not Sure</td>
</tr>
<tr>
<td>3.</td>
<td>Teachers use audio-visual facilities in teaching-learning process</td>
<td>3.3590</td>
<td>1.33178</td>
<td>Not Sure</td>
</tr>
</tbody>
</table>

As the table indicates, respondents agreed that teachers give opportunity for learners to speak without interruptions (M= 4.0425, Std. Dev = .98622). However, they were not sure whether teachers give rewards for speech improvement (M=2.9380, Std. Dev = 1.33471), and whether teachers use audio-visual facilities in the teaching-learning process (M=3.3590, Std. Dev = 1.33178). Thungu, Wandera, Gachie and Alumande [31] comment that teachers should use audio-visual facilities in teaching-learning process, give rewards for speech improvement and give opportunities for learners with communication difficulties to learn without interruptions. Rewarding this type of learners can improve reinforcement hence learning capability will be maximized.

### Emotionally Challenged

Table 11 indicates respondents’ mean score to seven items which rated inclusiveness of emotionally challenged learners.

<table>
<thead>
<tr>
<th>SN</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guidance and counseling are regularly provided to students</td>
<td>4.2773</td>
<td>.82371</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Teachers use appropriate approaches to avoid students’ unacceptable behavior</td>
<td>4.1560</td>
<td>.86403</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>Schools have an office for guidance and counseling to learners</td>
<td>3.8436</td>
<td>1.33183</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>School address all barriers to learning to increase participation</td>
<td>3.5866</td>
<td>1.07534</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>There is close cooperation between the school and the home</td>
<td>3.3240</td>
<td>1.26182</td>
<td>Not Sure</td>
</tr>
<tr>
<td>6</td>
<td>Teachers conduct additional periods for children with learning difficulties</td>
<td>3.3184</td>
<td>1.36349</td>
<td>Not Sure</td>
</tr>
<tr>
<td>7</td>
<td>There is a special teacher to help students with learning difficulties</td>
<td>2.8366</td>
<td>1.40673</td>
<td>Not Sure</td>
</tr>
</tbody>
</table>

Respondents agreed that guidance and counseling are regularly provided to students (M= 4.2773, Std. Dev = .82371), teachers use appropriate approaches to avoid students’ unacceptable behavior...
(M=4.1560, Std. Dev = .86403), schools have an office for guidance and counseling services (M=3.8436, Std. Dev = 1.33183), and that schools address barriers to learning to increase participation (M=3.5866, Std. Dev = 1.07534). According to Ogoda [47] in Mbera [46], lack of guidance and Counseling is a key factor behind the high rate of dropout. Therefore guidance and counseling is viewed as a vehicle to best academic and professional achievement.

Respondents, however, were not sure whether there is close cooperation between school and home (M=3.3240, Std. Dev = 1.26182), whether teachers conduct additional periods for children with learning difficulties (M=3.3184, Std. Dev = 1.36349), and that there is a special teacher to help students with learning difficulties (M=2.8366, Std. Dev = 1.40673). Salend [21] argued that parental involvement to support inclusion is essential since it promotes acceptance for the social and emotional development. Parents who play active roles in the schooling of their children ensure that homework and other school tasks are accomplished lead to the development of learners emotional and social since there are involvements of parents in their learning. Melak [48] supported that, the preparation of teachers’ performance in communication and classroom management, and simulation improves inclusive teaching skills to learners with disabilities. Okongo, Ngao, Rop and Nyongesa [25] in their study support that availability of teaching and learning resources affect the implementation of inclusive education in Kenya. Good and adequately trained teachers are also resources that needed in inclusive education. Mbera [46], in her study, recommend that, there is need for fair, just and transparent selection of teacher-counselors. If possible it should be based on training on counseling. Only those who are with good moral standards should be selected as counselors to be good role models.

CONCLUSIONS AND RECOMMENDATIONS

This section gives conclusions derived from the discussion of findings and then recommendations are given.

Conclusions of the Study

Based on analysis of data and discussion of findings regarding accessibility to inclusive education, it is concluded that:

1. Schools under investigation comprise of different types of learners including those with disability. Teachers are prepared to include learners with special needs in the teaching-learning process. Particularly, there is proper handling and faire treatment of such learners, and there is a tendency of welcoming them in the teaching learning process.

2. There is no significant difference in the perception of teachers’ preparedness for inclusive education between teachers and students; both groups considered teachers to be prepared for inclusive education.

3. There is no significant difference between teachers and students in the attitude toward learners with disability. Both groups had positive attitude toward such learners.

4. Visually impaired are included in the learning process but respondents were not sure whether teachers encouraged development and use of listening skills and whether there is appropriate location for visually impaired learners to sit. Furthermore, there is non-availability of reading materials for the blind and the school ground is not favourable for the blind and low vision learners to walk comfortably.

5. Hearings impaired are included in the learning process. Teachers face them during the teaching and learning process and there is the use of peers to assist them. Respondents, however, were not sure whether teachers use visual aids and illustrations.

6. Physically challenged are included in the learning process. Teachers help them to accept their present situations and there is provision for extra time to complete learning tasks for slow learners but there are no wheel chairs for physically challenged students and schools have no ramps and special toilet facilities for learners with disability.

7. Teachers give opportunity for learners to speak without interruptions. However, respondents were not sure whether teachers give rewards for speech improvement.

8. Guidance and counselling are provided to emotionally challenged learners and teachers use appropriate approaches to avoid students’ unacceptable behaviour. Respondents, however, were not sure whether there is close cooperation between school and home to assist this group of learners.

Recommendations of the Study

Based on conclusions regarding accessibility to inclusive education, the researchers give the following recommendations:

1. Since teachers are prepared to include learners with special needs in the teaching-learning process, there is need for school administration to provide them with regular workshops and seminars on how learners with special needs can be included in the mainstream teaching-learning process.

2. There is need for teachers to encouraged development and use of listening skills among
visual impaired learners. Furthermore, school administration should provide appropriate location for them to sit and ensure availability of reading facilities for the blind. School ground should be levelled for the blind and low vision learners to walk comfortably.

3. Teachers should increase the use of visual aids and illustrations especially when teaching learners with hearing impairment.

4. Schools in collaboration with parents should ensure availability of wheel chairs for physically challenged learners and schools should prepare ramps and special toilet facilities for learners with disability.

5. Schools should increase cooperation between school and home on how to assist emotionally challenged learners. Furthermore, teachers should continue to provide guidance and counselling to this group of learners.

REFERENCES


Practice in Lagos State Nigeria. *Journal of Education and Practice*. 5(2) 32


