Teaching Strategies Deployed by Teachers in Improving Academic Performance of Students with Visual Impairment in Inclusive Secondary Schools in Tanzania

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Abstract

This paper focused on teaching and learning strategies deployed in Tanzanian inclusive secondary schools to enable students with visual impairment perform well during classroom sessions and examinations. The study was conducted in four administrative regions of Dar es Salaam, Dodoma, Mwanza, and Tabora and involved 24 participants. The study findings revealed the following teaching and learning strategies adopted to enable students acquire sufficient knowledge in subjects taught: placing students in front of classrooms, teachers' clear articulation of words and sentences when teaching, proper lesson preparation, reading words written on chalk boards, avoiding questions leading to choral responses in teaching, and curriculum modification. The study recommends that appropriate teaching and learning strategies should thus be designed and applied in inclusive classrooms to facilitate lesson understanding and better performance in their tests, assignments and examinations.

Keywords: inclusive classrooms, *secondary schools, students with visual impairment/ with VI*. teaching/learning strategies

Introduction

This paper provides information on instructional teaching and learning strategies used in teaching students with visual impairment in Tanzanian private and public secondary school inclusive classrooms. It highlights how designing and applying special instructional teaching and learning strategies facilitate learning of such students leading to better performance in studies and examinations.

According to Texas School for the Blind and Visually Impaired (2017), teaching and learning strategies for students with visual impairment as a concept refers to all special teaching and learning mechanisms designed and applied in facilitating students' understanding of the taught subjects and better performance in examinations. Formal secondary education, within which such strategies are adopted, was introduced for the first time in Tanzania to students with visual impairment in 1960. During that time, the first person with visual impairment was enrolled at Mpwapwa Secondary School (Chawala, 2011). It is stated further by Mushi (2012) that in 1962, the nation introduced the law abolishing discrimination in provision of secondary education to its people. The law from 1967 was strengthened when Education for Self-Reliance was developed as a guiding philosophy in providing education to people. Among other things, the philosophy required residents to have access to education irrespective of their creed, personal background, or disability. Consequently, all children such as those with visual impairment became enrolled to various educational levels including secondary education. Their number has increased and it is now worth studying the strategies deployed by Tanzanian inclusive secondary school teachers in improving their academic performance**.**

Lamichhane (2016) and MoEVT (2010) argue that when special instructional strategies are not designed and applied by teachers, students end up into performing poorly in examinations and also in learning subjects. The surveyed studies indicate that very little has been done to design and apply special instructional teaching and learning strategies to enable students with visual impairment (SVI) to perform better in their classes as well as in subject examinations. Kisanga (2017) and Lugome (2018) argue that when education is provided in the absence of special instructional teaching and learning strategies as well as other necessary teaching and learning needs for students with special needs, they end up attaining minimal educational achievements. They, for instance, perform unsatisfactorily in final examinations at the same time making them lose hope of accessing better life in the future (Kisanga, 2019; Possi and Milinga, 2017).

This study was consequently conducted to search for well-designed teaching and learning strategies, which, if applied in inclusive classrooms, would facilitate lesson understanding and better performance in examinations among students with visual impairment in Tanzanian 6 secondary schools.

Purpose of the Study

The purpose of this study was to find out special instructional strategies designed and applied to facilitate the educational provision to students with visual impairment

in Tanzania secondary school inclusive classrooms. With this purpose, first, the study sought to find out concrete examples of teaching and learning strategies designed and applied to facilitate lesson understanding and better performance in examinations among students with visual impairment (SVI) in Tanzania secondary school inclusive classrooms; second, the reasons for designing and applying special teaching and learning strategies for students with visual impairment studying in inclusive classrooms in Tanzanian secondary schools. Lastly, the study searched for descriptions on what would be the significance of designing and applying special teaching and learning strategies for students with whom the study was about in inclusive Tanzania secondary schools.

Research Approach, Design and Data Collection Methods

The study adopted a qualitative research approach through a single case research design. The chosen research methodologies, as recommended by Bettez (2015), Bryman (2016) and Yin (2015), were for enabling the researcher to provide writings with clear analysis. The authors justify that a single case design is relevant in any study conducted under qualitative approach for it shares one common characteristic with that approach of not seeking statistical analysis in explaining events, but analysis through words in explaining events. Creswell (2014) states that a single case study design allows the researcher to focus on a single group of people. In due regard, this study focused on a single case of secondary school students with visual impairment. Semi-structured interviews and focus group discussions were used as methods of collecting data.

Study area, target population, and sampling

The study was conducted in four administrative regions of Dar es Salaam, Dodoma, Mwanza, and Tabora. Each region had one secondary school with research participants including school heads, general (non-specialised) teachers' specialists in special needs education, teachers with visual impairment, and students. Other participants were the MoEST officials from the Ministry of Education found in Dodoma. A purposive sampling technique was applied whereby 24 participants were found. The selection considered persons who had worked with students with VI at both levels of secondary schools and Ministry of Education, Science and Technology for at least three years. The selection of these participants was guided by Cohen, Manion, and Morrison (2018), who advice that suitable research participants are those with adequate knowledge on the given research problem.

The distribution of the sample is indicated in Table 1.

Table 1: *Sample Distribution*

School/ organisation	Categories and Number of Participants		Sampling technique applied
	Category	No.	
MoEST	MoEST officials	2	Purposive
Mkolani	School head	1	Purposive
	GT	1	
	SP	1	
	SVI	2	
	NDs	1	
Mvumi	School head	1	
	GT	1	
	TVI	1	
	SP	1	
	SVI	2	
Tusiime	School heads	1	
	GT	1	
	SVI	2	
	NDs	1	
Tabora Girls	School heads	1	
	GT	1	
	SVI	2	
	TVI	1	
		n=24	

Key: GT=General Teachers (Non-specialized teachers); TVI=Teachers with Visual Impairment; SVI=students with visual impairment; SP=specialist; NDs=Non-disabled students (students without disabilities).

Table 1 shows the twenty-four (24) participants from MoEST and sampled secondary schools. They included four general teachers (teachers without disabilities), two teachers with visual impairment, two specialists, and four heads of school. Others were eight students with visual impairment and two non-disabled students. Lastly,

there were two MoEST officials. Qualifications of all these participants in providing data for the study are indicated in Table 2.

Table 2: *Qualifications of Research Participants*

S/N with the identified type of qualification	**Selected participants with their qualifications**	**Gender consideration**
1. Access to education	School heads, GT, SP, TVI, MoEST officials: 12 Bachelor's degree and two Masters' degree holders	9 males and 5 females
	MoEST officials: 1 Bachelor's degree holder and 1 Masters' degree holder	Both Males
	SVI and NDs: 5 form four learners and 5 form three others	5 females and 5 males
2. Experience of individuals working/ assisting students with visual impairment	School heads, GT, SP, TVI, MoEST officials: Between 3 and 15 years	9 males and 5 females
	SVI and non-disabled students: between three and four years.	5 females and 5 males
3. Participants' age qualification:	School heads, GT, SP, TVI, MoEST officials: Ranged between 30 and 50 years	9 males and 5 females
	SVI and NDs: Ranged between 16 and 18 years	5 females and 5 males

Table 2 indicates that all 24 research participants had enough qualifications to enable them provide data for the study. The qualifications included access to enough education, work experiences with regard to issues on visual disability, and assisting students with VI as human readers. In the sampled schools, some non-disabled students volunteered as human readers for students with VI in reading ink-printed materials.

Results and Discussion

The study findings and discussion are presented under the headings developed from purpose of the study.

Teaching and Learning Strategies Designed and Applied in Teaching Students with VI

The question of designing and applying special teaching and learning strategies is viewed by this study as the most excellent decision when the plan is to instruct students with visual impairment studying in inclusive secondary school classrooms. Such aspects will facilitate their learning, subject understanding and better performance in subject examinations. Consequently, the study worked on various instructional strategies designed and applied by teachers to enhance lesson understanding and better performance in examinations. The following subsections contain research findings on the strategies employed to promote these fortunes to students.

Placing students with visual impairment in front of classrooms

Results from 18 (75%) respondents among general teachers, specialists, teachers with visual impairment, students with and without visual impairment, justified that placing students with visual impairment at the front of the classroom was the best approach in teaching students with visual impairment. It was considered the best strategy because it enables them to participate in learning through clear listening from lessons presented by teachers. The strategy enables students to clearly record teachers' lesson presentations in voices which can easily be heard. The strategy concurs with an observation by Sinclair (2014), who found that students with VI preferred the front seats so that they could be close to teachers for proper listening during lesson presentations.

One form four female student with VI (SVI8), justified that the strategy of placing students with visual impairment in front of classrooms, enabled the students to listen flawlessly to what was being presented by their teachers. Furthermore, the findings showed that the strategy also facilitated the recording of the lessons taught since the voice recorded by students who were seating in front of the classrooms was easily heard when played back. This made it easy for students to write the lesson notes in Braille. Moreover, respondents remarked, the strategy appeared advantageous not only to students but also to teachers. For instance, it enabled teachers to easily see and involve the students by provoking them to concentrate in class including requiring them to raise hands to answer or ask questions. The same respondents such as TVI1, also found the application of the strategy as a step towards avoiding students from bumping on classroom objects on the way from outside to their seats.

Advantages of this teaching strategy were also supported by Texas School for the Blind and Visually Impaired (2017) which contended that placing students in front enables them to hear all teachers' instructions. Generally, placing students with

visual impairment in front parts of classrooms was found helpful for it prevented them from experiencing injuries caused by bumping on classroom objects. They also listened clearly to their teachers when teaching, leading to clear lesson understanding and writing of lesson notes.

Teachers' clarity in articulation of words and sentences

Through focus group discussions, 18 (75%) respondents among the specialists, teachers with visual impairment, students with and without visual impairment, and general teachers, explained that clear articulation of words and sentences by teachers was a good teaching strategy for it had many advantages on the learning of students with VI. The application of this strategy enabled students with VI to listen clearly to what teachers presented in classrooms. In view of one female general teacher (GT2), "*It made them get the intended message and knowledge*." From this view as presented by this respondent with her fellows, since the VI student is placed closer to the teacher, the student can hear clear pronunciation of words and sentences, thus getting the required message and knowledge.

Respondents such as one form three student without disability (NDs1), argued further that, "*Clear articulation of words and sentences had to go hand-in-hand with an application of the most required loudness by teachers and avoiding inaudible pronunciations of words or sentences when teaching*." To this respondent and his fellows, inaudible pronunciation involved pronouncing words by changing the ways they had to be correctly pronounced into other ways round. For example, the word "system" should not be pronounced as "thythtem, shyshtem" etc.

These teaching requirements which were very much needed to enhance students' listening and understanding lessons are supported the study by Kisanga and Richards (2018), who found that lectures dominated with oral descriptions presented in clear loudness were highly beneficial to students with VI, in comparison with lectures presented through multimedia projectors or writing on the boards assuming that all students including those with visual impairment can see.

Teachers' proper lesson preparations

When asked about teachers' preparations of their lessons, about 10 (33.33%) participants on the side of general teachers, specialists, MoEST officials, and teachers with visual impairment, commented through focus group discussions, that teachers' proper lesson preparation for teaching in inclusive classrooms was a favourable practice, for it enabled them to teach accurately. The respondents

indicated that the most outstanding preparation of teachers teaching in inclusive classrooms was on developing two types of lesson plans. The first one was the general lesson plan, while the second one was the Individualized Educational plan. The general lesson plan as its name implies was used in serving all students. It consisted of all the necessary steps that a teacher had to follow in teaching. From explanations by respondents including the specialist (SP1), it was clear that the general lesson plan had students' and teacher's activities, lesson evaluation stages, and teacher's remarks. Individualized Education Plan, on the other hand, was constructed to serve students with special needs placed in an inclusive classroom. This lesson plan had special steps to be followed to facilitate lesson understanding for students with VI. Among other things, it identified special teacher's activities undertaken to facilitate understanding of these students, the means of displaying special teaching gadgets to students, and how to handle them in classrooms in relation to lesson topic presented.

The participants such as the MoEST official2, argued that, "Construction of both the general lesson plan and the individualised one made teachers apply them in teaching students in one class period allocated in teaching a specific topic." From further analysis made by this participant with his fellows, the teachers used to refer to each lesson plan whenever necessary and only if the event facilitated the acquisition of sufficient knowledge to one of the two groups of students. For example, he used the individualised lesson plan in notifying the non-disabled students about it so that they could not be disturbed when the teacher spent time in clarifying topics to students with special needs as directed in individualized lesson plan. The importance of preparing the two types of lesson plans is given further emphasis by Taylor (2016). The author contends that students with visual impairment often require individualized instructions since group instruction for learning specialized skills may not be provided in a meaningful manner.

Reading words while writing them on chalkboards

The researcher sought for opinions on the extent to which teachers read the words as they wrote them on chalkboards. Focus group discussions were conducted to18 (75%) respondents among students with and without visual impairment, general teachers, specialists, and teachers with visual impairment. The results indicated that teachers in presenting lessons in inclusive classrooms were supposed to avoid the habit of writing on chalkboards without reading words or sentences they had written. In schools where power-point presentations were used, there was also a habit of presenting slides on projectors without reading them before starting to clarify or

give further analysis for students to understand. The teachers were additionally not reading the writings they had written on huge pieces of paper used as teaching aids for some lesson topics they planned to present in classrooms. Teachers were not reading their writings loudly although in writing on chalkboards, they planned to facilitate lesson understanding to all students found in classrooms. Consequently, it was stated by respondents that the teachers by not reading loudly what they wrote, were facilitating lesson understanding to non-disabled students only.

Respondents including the male general teacher (GT3), recommended that "*The use of chalkboards in teaching was generally important as it facilitated students' lesson understanding during the teaching and learning processes*." For instance, clarifying the importance related to the use of chalkboards in teaching students, the respondents commented that students were able to read and understand how some vocabularies used by teachers when presenting lessons, were supposed to be written. In addition, they knew how sentences used to explain specific events were written, spaced, and organised. The use of chalkboards also awakened some students who might have temporarily developed new thinking outside lessons that were in progress. After getting writings that consolidated what teachers were working on in classrooms, consequently, students got focused on lessons taught and could learn with high interest and morale.

By not reading loudly the words written on chalk-boards, it was stated by the female specialist (SP1) that "*Teachers contributed in slowing down the expected lesson understanding among students with visual impairment*." To this respondent, students with visual impairment could not benefit from all uses of chalk-boards as stipulated already in this study. Only non-disabled students benefited.

That means, in spite of the significance of using the chalk board in teaching, its application was improper for inclusive classrooms with students with VI when used without taking measures of ensuring how they could also benefit from the teaching style. According to a form four female student (SVI2), "*It prevented students with visual impairment from easily understanding topics taught*." To this student who also used to be affected with the practice of teachers not reading loudly the words or sentences they had written on chalkboards stated that the event interfered with students' ability to make connections between what was written and the lessons taught. Lamichhane (2016) advises that reading words aloud while writing on chalk board or presenting on a projector when teaching, is a good teaching strategy. This enables students to understand what is written on board or presented on the projector. Therefore, this teaching technique used in the sampled schools, negatively affected the learning of students with visual impairment when applied without considering how they could understand what was written.

Choral Responses during the Teaching and Learning Process

There was an observation that some teachers were not pointing to specific students requiring them to answer questions. Four (16.67%) participants among the specialists and teachers with visual impairment, submitted through focus group discussions that some teachers used to ask oral questions, most of which were answered through choral responses by all students in class. The students gave choral responses which were essentially very difficult to measure specific students' performance. Teachers entertained choral responses from some advantages emanating from applying that teaching style which included, one, to save time. The answers made teachers provide immediate feedback and proceeded with teaching thereafter. The process was advantageous in that it opened the possibilities for teachers to cover the syllabi in a relatively short time.

Two, through choral responses some students were able to know correct answers for the questions asked and learned from those who knew the answers. Three, the approach was helpful to students who felt a need to learn from their fellows and were at the same time good in concentrating on the given subjects by the time the teachers were teaching. Four, the approach made the class cheerful since it forced every student to participate. The cheerful nature of students made the classroom conducive for learning. For instance, there were no students who fell asleep since the responses made students alert and ready to answer the questions posed.

The respondents stated further that despite the good reasons and advantages realized out of entertaining questions that led to the provision of choral answers, the teaching strategy had some setbacks in that some students with VI were dependants on non-disabled students. According to the female specialists (SP1), "*It prevented them from listening properly and attaining the innermost understanding of the answers provided massively*." This respondent kept on clarifying that within some answers provided through coral responses, there were improper pronunciations of some words needed by teachers. The teaching style made lazy as well as slow and poor learners hide their weaknesses by easily participating in choral responding. This type of teaching and learning style could be suitable for fast learners who understand fast. The situation made slow learners either get confused by not knowing the answers for the questions asked or just followed what the fast-learning students were stating in the choral answers demanded by teachers. The style made it difficult for the teacher to exactly measure students' performance.

Problems resulting from the application of choral responses were also noted in a report by Human Rights Watch (2017). To prevent teachers from prolonging problems that hindered clear lesson understanding among students in Tanzania,

the report advised provision of quality education by using clear teaching methods recommended in the national school curriculum developed and accepted by the government.

Respondents such as the male teacher with VI (TVI2) advised that "*In most cases, choral answering should not be encouraged by teachers in the classroom*." However, where necessary, the respondent advised, teachers to take measures to make the style helpful to students' learning. The respondents proposed the following approaches:

i. The teacher should give immediate feedback by correcting the answers provided by students. He/she can do so by correctly pronouncing the sentence provided by students in choral answers.
ii. The teacher should listen attentively to some pronunciations and pay attention to spelling mistakes made by students when providing choral answers. He/she should rectify mistakes by requiring them to correctly pronounce and correct their spelling mistakes.

In short, choral answers hindered the acquisition of knowledge hence preventing students from performing well in examinations. Choral responses, wherever used, should be done under special care so that they cannot negatively affect the quality of education provided to students.

Modification of School Curriculum

Ten (41.67%) participants among the general teachers, specialists, teachers with visual impairment, and MoEST officials, stated through focus group discussions and interviews that the question of modifying the school curriculum was of paramount importance. Curriculum modification involved omitting diagrams, maps, and pictorial symbols which had been put to facilitate lesson understanding of non-disabled students. The teachers replaced all these visual symbolic materials with clearly stated words and sentences that facilitated lesson understanding of Students with VI. In view of specialists such as SP1, "*The importance of doing that was to enable students with visual impairment also to understand some subject topics, which would appear sophisticated and thus, limiting their expectations of performing better in studies and examinations*." With these modifications, respondents remarked that students could understand the topics even if taught to them inclusively.

The curriculum-related activities performed in sampled schools for this study contradicted what was taking place in the study by Lugome (2018). The author found teachers not working on curriculum modification in teaching subjects to students with visual impairment despite its significance in facilitating their lesson

understanding. The only reason provided was that they had not been trained on how to do that in institutions that trained them as teachers. All in all, curriculum modification is recommended since it facilitates lesson understanding for the students because some visual symbols, which would complicate their lesson understanding, are omitted and replaced with special drawings, clearly stated words, and sentences to represent them.

Reasons for Designing and Applying Special Teaching and Learning Strategies for Students with Visual Impairment

Out of 24 respondents, 16 participants (66.67%) among general teachers, specialists, students with and without visual impairment, participated in focus group discussions responding to research question that required them to explain reasons for designing and applying special instructional strategies for students with visual impairment in Tanzania secondary schools. Respondents justified that designing and applying special instructional strategies was important due to four major reasons. The first one was presented by the female general teacher (GT1). She said that, "*The tendency of general teachers who were not taking trouble to consider lesson understanding to students with visual impairment, was the leading reason. In teaching, such teachers were not taking strong measures of making students understand lessons in classrooms simply because students were the minority in classrooms of many non-disabled students.*" The respondent with her fellows proceeded with an argument that teachers used to concentrate on the understanding of majority non-disabled students leaving students with visual impairment with little or no understanding at all on the lessons taught. This situation was also discussed by Kisanga (2017), Mgumba (2018), and Taylor (2016). They argue that many teachers do not adequately consider lesson understanding of students with visual impairment, because they are in small groups in inclusive classrooms made up of many non-disabled students. Subsequently, they are either left to struggle on themselves in understanding lessons taught by teachers with that tendency. Or, sometimes, schools do have some teachers with much effort of requiring students to understand the lessons taught. Their efforts sometimes prove failure simply because students can only understand lessons demanding high brain concentration when they are taught in separate classes and not under inclusion.

The second reason that necessitated designing and applying clear instructional teaching and learning strategies emanated from students whom, by understanding themselves as a clique among many non-disabled students, decided to develop a tendency of isolating themselves from participating in most of the classroom activities ordered by subject teachers. Consequently, according to a form four

female student with visual impairment (SVI8), some students became truants. She was quoted saying, "*Some students, apart from not participating in cooperating with others in performing classroom activities, developed truancy which made them absent when class sessions were in progress*." The effect of that problem is unsatisfactory performance in subject examinations and on general learning. It is narrated by Karuhawe (2021) and Ravenscroft (2015) that the problem is facilitated by their absence in classrooms which prevents them from learning the subjects taught in their absence. Similarly, by not participating in cooperating with other students in performing classroom activities ordered by teachers, they do not get access of learning from their fellows the techniques of answering questions including examination questions.

The third reason was presented by the female specialist (Sp1) who said: *"The subjects taught in inclusive classrooms are primarily designed for non-disabled students and not for students with special learning needs."* Many topics of such subjects contain explanations with diagrams, maps and pictorial symbols which could not be easily understood by students with visual impairment. All had been put to facilitate understanding of non-disabled students. To modify the curriculum, teachers do replace all visual symbolic materials with clearly stated words and sentences that facilitate understanding of students with visual impairment. The modification, apart from concentrating on modifying materials, concentrate also on changing three areas of the curriculum which according to Noah, Rose and Mkandawire (2016), include content, methodology, and resources. At content level, the curriculum should be modified in such a way that it meets special educational needs by allowing flexibility to suite the environment in which teaching has to take place. At the methodology level, professionals are required to apply relevant knowledge and skills they have on special education needs when teaching students associated with such needs. At resources level, teaching and learning materials should be adapted or modified to appear relevant to learners' needs. The relevance of modifying the curriculum developed for non-disabled students was also noted by Taylor (2016) who pointed out that the methods applied in teaching students are not in favour of learners with disabilities. Their designs are completely unfriendly to the learning situation of students with special needs.

The fourth reason explaining the importance of designing and applying special instructional teaching and learning strategies for these students was aired out by a form three male non-disabled student (NDs3) who had this to say: "*The designing and application of special teaching and learning instructional materials was geared towards facilitating the performance of students in studies and examinations*." This respondent with his fellows were of the view that so long as better performance

in studies and examinations was taken as a leading criterion for determining the success of students in academics, designing and application of clear teaching and learning strategies were fundamentally undertaken to enable students to reach this target. This reason supported the analysis by MoEST (2014 which postulated that students' passing examinations by scoring high marks was essentially viewed as the key academic achievement because it was used as the only criterion for selecting students to join further studies. Therefore, designing and applying special teaching and learning instructional strategies for students with VI were seen as the best strategy within them; there were some special considerations aiming at ensuring that they understood the lessons presented.

Significance of Designing and Applying Special Teaching and Learning Strategies for Students with VI

Twelve participants (50%) including school heads and students with visual impairment, responded to research questions through semi-structured interviews and their participation in focus group discussions that demanded them to explain the significance of designing and applying special teaching and learning instructional strategies.

From explanations provided by the respondents, designing and applying special teaching and learning strategies for students with VI was very significant for academic wellbeing of the students with visual impairment in secondary schools. For example, school head2, had this to say: "*The special design of the teaching and learning strategies is done to strengthen ability of students with visual impairment in managing to pursue their studies very well*." Also, respondents clarified that good performance exhibited by students after getting sufficient knowledge in lessons taught comprehensively under clear application of these teaching and learning strategies enabled them to contribute in the national development by being able to perform various development activities. This significance is supported the study by Bowlen, Osiniak, Syms, and Larwin (2018) who reported that students who perform better in examinations after joining further studies from secondary schools, have been securing employments from which some money generated, was partly used in fostering the development of their nation.

The designed instructional strategies had another significance which, in view of the form four students SVI5, prevented the students from discrimination. She responded that, "*The instructional strategies were for preventing students with visual impairment from being nicknamed as exceptional examination failing community in schools*." This respondent with her fellows who provided this significance

clarified that in inclusive schools where teachers did not trouble themselves to develope designs of this type, students with VI always performed unsatisfactorily in studies and examinations. The situation made the non-disabled students who performed better to nickname these students as "exceptional examination failing school community". This indicated that such strategies minimised such inhuman and discriminatory labelling.

Strengths and Weaknesses of Working on Instructional Teaching and Learning Strategies for Students with Visual Impairment

At the level of strengths, findings have shown that instructional teaching and learning strategies make teachers think deeply about the importance of using the strategies in facilitating lesson understanding among students. Through the strategies, teachers design various strategies to enable them to teach in inclusive classrooms. Teachers become innovative and come up with different teaching and learning strategies, which are thereafter designed and applied to facilitate expected students' lesson understanding. That, in turn, leads to students' better performance in studies and examinations.

About weaknesses, despite the importance of teaching Students with VI through the use of well-designed instructional teaching and learning strategies, acute shortage of well trained teachers in designing the strategies is a problem in inclusive schools. The situation may limit designing and applying such strategies in inclusive classrooms. Further, it may make the teachers continue with the strategies that they are used to.

Conclusion

This paper presented findings of a study conducted to analyse six instructional teaching and learning strategies used in teaching students with visual disabilities in Tanzania inclusive secondary schools. It looked into how the strategies can be designed as well as be applied to facilitate the learning of students with VI in inclusive classrooms. To obtain the relevant data for the study, qualitative research through a single case study design was used. The results indicate the following strategies employed by teachers during the teaching and learning of students in inclusive classrooms: placing students in front of classrooms, teachers' clear articulation of words and sentences when teaching, proper lesson preparation, reading words written on chalk boards, avoiding questions leading to choral responses in teaching, and curriculum modification. From the findings, it is evident that some of the instructional strategies discovered to be employed by teachers are weak and sometimes not really working. This paper concludes

that the strategies can be of great assistance if properly designed and applied in teaching students with VI in inclusive settings. Applying the strategies may facilitate lesson understanding among students, hence better performance in their studies, in continuous assessments and examinations conducted in schools as well as in activities carried out after schooling to earn their living. The good performance exhibited by students in academics when still studying can motivate parents to enroll children with disabilities in schools instead of overprotecting them at home by not knowing their potentials in life. For teachers, the tendency of designing and applying teaching and learning strategies in preparing subjects for clear classroom presentations inspires innovations of many strategies which can repeatedly be applied time after time to enhance lesson understanding among students.

Recommendations

Data from the study have led to three types of recommendations for action: One, school administrators and owners should ensure that designing and application of relevant instructional teaching and learning strategies for students with VI is a continuous process in both private and public secondary schools. This will lead to efficient learning among students hence good results. Two, since many teachers were seen incompetent in designing proper teaching and learning strategies for students with visual impairment, short training courses on how to design and apply special teaching and learning instructional strategies for students with VI studying in Tanzania inclusive secondary schools should be developed by the Tanzania Institute of Education and/or other educational stakeholders. The courses will be of great help to general (non-specialised) teachers who would then have knowledge of how to teach inclusive classrooms accurately. This is due to the fact that, what lacks among teachers is not only policy issues, but also skills of handling students with special learning needs.

Two, a policy on rewarding teachers designing specific teaching and learning strategies in inclusive secondary schools should be formulated. It should target on a number of strategies qualifying for rewards in terms of their efficiency in facilitating lesson understanding to students with VI, the application of the strategies as well as the type of reward to be offered.

Three, a study on the situation of non-specialized teachers in designing as well as applying instructional teaching and learning strategies in inclusive classrooms should be conducted. It will provide knowledge on how general teachers can be assisted in approaching the teaching of inclusive classrooms.

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