

too much as they fail to cope with the demand of the workload. This is collaborated with literature that stated that teachers face the barrier when they have inadequate resources to help them understand the concepts being taught in class (UNICEF, 2011).

The study revealed that there is inadequate teaching and learning resources in schools. Teachers indicated that resources are a big challenge to cater for the educational needs for learners with blindness, for example, large print book. One participants said. *“I experience limited resources to cater for the educational needs for learners with blindness. I feel that there is limited support from the ministry of education in the provision of teaching and learning materials for children with challenges to learn in an inclusive environment”*. In the study teachers revealed that they encounter a number of challenge of lack of resource materials. Teaching requires teaching aids and books.

A participant notes. *“I encounter a number of challenges when dealing with blind children in inclusive setting. One of the challenges is lack of resource materials. Teaching requires teaching aids and books. For children who are blind, they require materials for reading that is Braille. So such materials is not available”* For children who are blind, they require materials for reading that is Braille materials and such materials is not available. Hence, inadequate resources limits the provision of quality teaching for the learners. Such views are collaborated by literature review that points out that lack of suitable facilities and adequate resources, hampers the inclusion of learners who are blind in regular classes. Teachers need resources to produce teaching aids and to differentiate instruction. In view of the teachers responses it is also noted in literature review that students who are blind require assistive technology, for example, computers and braille equipment to cater for their special education (Hunter & Johnson, 2014). Hence, resources should be made available to enhance the education of children who are blind in regular classes.

One other challenge that confronts the teachers in teaching blind children in regular classes is the abilities to use the Braille, some of the teachers indicated that they have difficulties in brailing their work. The use of Braille is key in facilitation of the learning of the children with blindness especially when writing and reading materials. One participant notes. *“ My braille skills are not refined. Teaching and learning materials are inadequate for example, I don't not have brailed charts to illustrate some of the concept. The inclusion parents are reference is a challenge”*. The other challenge that confronts the teachers in the regular classes is that the Braille is too noisy when tying such that it disturbs other students in class. Such challenges are collaborated in literature that states that lack of suitable facilities and adequate

resources, hampers the inclusion of learners who are blind in regular classes. Teachers need resources to produce teaching aids and to differentiate instruction. Such views of the teachers are supported by Dakwa(2014) who found out that inclusion was not successful due to lack of material and human resources such as assistive devices to support inclusion of both blind children and those with blindness were inadequate.

Children who were blind, faces mobility and orientation problems. They experience difficulties in moving around, understanding and locating their environments. A participant in study points out that. *“learners who are blind face mobility challenges in navigating the school environment and the class. Sometimes, the students require assistance from their peers in class”*. Children also revealed that the classroom teachers ignored their needs when they continually used the lecture methods and ignored the presence of children with visual impairments (Dakwa, 2014). In addition, children in certain poorly resourced centres, they lack Brailled books and other learning materials and how this hampered their learning progress.

The other challenge that teachers pointed out is that learners with blindness in regular schools face the challenge in mobility and orientation. Children with blindness have challenges in mobility especially moving around the school yard and the class. Mobility challenges are experienced in navigating the school environment and the class. Sometimes, the students require assistance from their peers in class. A participant said. *“Mobility challenges in navigating the school environment and the class. Sometimes, the students require assistance from their peers in class”*. Hence, the challenges in mobility are experienced especially moving around the school yard and the class. Thus, literature collaborates these that one of the challenges confronting children who are blind is the inaccessibility of the offices, classrooms, dining halls and libraries. These facilities in most areas are built without the exceptional students in mind (Mutasa, Goronga & Tafangombe, 2013).

The study revealed that the class size too big for effective teaching and learning. Teachers revealed that the classroom size is large for individual attention. In the study the average class size is forty and teachers indicated that it is difficult to provide adequate support for children who are blind in regular classes. In addition, other children in class who are sighted also need attention and this leaves the teachers overwhelmed by work. One participant said *“The classroom is too big, 40 students are too much”*. The challenge of class size is collaborated in literature as research indicate that one of the challenges negatively impacting on the inclusive education is that the class sizes are too big. The classroom size of the regular schools is a

major problem. In a qualitative study of inclusive education in Bulawayo (Zimbabwe), Mafa (2012) highlighted that in public schools the average class size was 40. Thus, the class size impacts on inclusion implementation due to the difficulties that teachers have in attending to individual needs, class management dynamics and the marking load they exert on teachers.

Teachers' successes in including children with blindness in regular classrooms

The study revealed that the teachers' successes in including children who are blind in regular classes include the use of pre and post vocabulary in teaching, encouragement of participation and cooperative learning. These approaches are helpful handling the education of learners with blindness in regular classes. The use of use of pre and post vocabulary helps students with blindness need assistance in making the connection between vocabulary and real objects, body movements and abstract ideas. One participant notes. *"Students with blindness need assistance in making the connection between vocabulary and real objects, body movements and abstract ideas. Pre-teach vocabulary and key concepts which relate to the curriculum through verbal explanations and concrete experiences using a multi-sensory approach. For example, I orient the student to the library before the library time or develop the concept of the skeletal system with real bones"*. Hence, pre-teach vocabulary and key concepts which relate to the curriculum through verbal explanations and concrete experiences using a multisensory approach. For example, orient the student to the library before the library time or develop the concept of the skeletal system with real bones. Hence, helping students with blindness improve their vocabulary is useful as it promotes areas of communication – listening, speaking, reading and writing. In addition, vocabulary is directly related to school achievement, to think and learn about the world and the expansion of the child's ability to access new information (JCFS, 2020)

The study also revealed that teachers' success in inclusion of blind students in regular classes is reflected by meaningful participation by students with blindness in class activities. Some teachers revealed that the participation by the children who are blind is good. Children with blindness participate like others in class discussion. For example, some children are very active and are cheer leaders. Teachers revealed that they motivate their students to develop physical fitness is as important for the student with blindness as the sighted child. Sensory-motor skills are necessary for good concept development, physical conditioning and orientation and mobility skills. The student with blindness should participate in the regular physical education program. Adaptations may be required depending on the functional vision

of the student. He/she may not be able to participate in all activities and team sports. A parallel physical activity should be provided. Witten (2018) states that participation success is collaborated by literature that states that participation is crucial for the health and well-being of children. It promotes physical and mental well being through pathways such as a sense of belonging and the networks for social support. Hence, for participation in class plays a significant role to improve the social integration of children with blindness in regular classes.

Findings from the study reveals that there is cooperation among the students is positive. There is reliance amongst students who are blind. Other students help those with blindness in accessing books and other support materials. Teachers encourage cooperative learning. A participant notes “ *I encourage cooperative learning. In cooperative learning, this has been a success because in my class, it’s a family and those who are not disabled can work together with learners who are blind. Also there is a lot of sharing amongst students*” In cooperative learning, this has been a success because in class, it’s a family and those who are not disabled can work together with learners who are blind. Also there is a lot of sharing amongst students. In addition, there is reliance amongst students who are blind. Other students help those with blindness in accessing books and other support materials. At the same time friendships are visible among the students. One of benefit of inclusive education is the development of friendship among learners and acceptance of individual differences. Inclusive education has provided all children with opportunities to develop friendships with one another. Friendship provide role models and opportunities for growth. Findings from the teachers is collaborated by literature (Raising children.net, 2020) that points out that friendships and cooperation plays a central role in the learning and development for children. It helps children with disabilities to learn skills and abilities including social – emotional, communication and physical skills.

Strategies that could improve the inclusion of children with blindness in regular classrooms

The research revealed that the strategies that can be implemented to improve on the inclusion of children with blindness in regular classes are diverse. One of the strategies employed teachers is the use of assistant teacher. Teacher assistants are part of the support team. The primary responsibility of the teacher assistant is to support the classroom teacher, enabling the teacher to provide an educational program that meets the needs of all the students in the class, including the student with a visual impairment. Teachers views on the use of assistant is supported by Adam(2020) who states that the role of teaching assistants in crucial as it is

collaborated with literature because they help the teacher create a classroom that is conducive, they inspire learning and stimulate curiosity among the students.

The study also revealed that to improve the inclusion of children who are blind in regular classes the teachers use the verbalisation approach when teaching. Teachers verbalize praise and disapproval or use gestures such as a hand on the shoulder. They promote oral activities in activities that are done in class. A participant in the study said *“I speak when teaching and always check regularly to ensure that student is writing accurate notes”*. This is important because it allows the children to get what will be teaching rather than using the chalk board as they cannot see. In addition, teachers speak when teaching and always check regularly to ensure that student is writing accurate notes. Thus, ADCET (2018) supports the use of verbalisation, as it is crucial for teachers as it draws the attention of the children. Teachers verbalise what is written on the chalkboard, they talk through any calculations as they are made or procedures as they are carried out. There is need to read any printed information and describe the charts being used for the benefit of learners who are blind. This enhances the understanding of children who are blind to follow what is being taught in class.

The study also found out that in teachers use concretisation teaching method to help students who are blind to capture the concepts. Teachers use tactile, concrete and real life material as much as possible. This provides opportunities for kinesthetic and tactile learning. For example, in the teaching of Maths, students with blindness must physically manipulate concrete materials to master the basic concepts of maths. A participant notes. *“In the teaching of Maths, students with blindness must physically manipulate concrete materials to master the basic concepts of maths. The basic concepts of addition, subtraction, multiplication and division should be thoroughly understood, hence, I encourage the practice mental math skills. I also provide a compartmentalized tray in which to place articles for counting and matching. For language skills, I use real-life examples and concrete material can assist in establishing relationships between abstract learning and the student’s experience”* Thus, basic concepts of addition, subtraction, multiplication and division should be thoroughly understood, hence, teachers encourage the practice mental maths skills. Teachers also provide a compartmentalized tray in which to place articles for counting and matching. For language skills, they use real-life examples and concrete material can assist in establishing relationships between abstract learning and the student’s experience. Thus, Moshi (2018) posits about the same approach of the use of the concretisation of the materials such as life

examples and concrete material that can assist in establishing relationships between abstract learning and the student's experience.

The study revealed that teachers use of audio materials to facilitate learning for children who are blind inclusive settings. Teachers modify the amount of reading and provide audio cassettes or have someone read to the student, if necessary. Teachers play audio for the children to use their sense of hearing to facilitate learning for the students. Such a view is collaborated the Leonard Cheshire Disability(2011) that points out that audio recordings enhances the understanding of the concepts being taught in class. Hence, lessons can be tape recorded for later playback at home or as revision

The study found out that teachers make use of self-development plans for the children. Individual educational plans helps in the development of a behaviour management plan, since there will be buddie system in class. One participants said. *"In facilitation of reading, I use a multi-sensory approach when teaching the alphabet. For example, real objects should be used to illustrate the initial sounds of words. Modify the amount of reading and provide audio cassettes or have someone read to the student, if necessary"*. Thus, learners help each other and share problems. It also helps the teacher has support personnel it makes the learner to be prepared to play a key role in beginning and maintaining an inclusive focus. In addition, the teacher can choice of relevant literature helps to improve inclusion since teacher will be knowing how to solve problems and how to improve their classroom to suit all learners. Mporfu (2000) states that Individualized Educational Plans (IEP) should be prepared for each child with disability that is to cater for individual differences. Ordinary regular teacher should try to change the classroom environment to suit the needs of these particular students. Pupils with severe intellectual disability require individual attention and their work should be presented in small teachable units.

The study reveals that one of the strategies that can be employed in the learning of children with blindness in regular classes is group work. Group is important as it allows students discuss and share ideas. The good part is that young children are not discriminatory in nature, hence, group work will encourage sharing of ideas. One participant said. *"I will allow group-work. For me group is important bas it allows students discuss and share ideas. The good part is that young children are not discriminatory in nature, hence, group work will encourage sharing of ideas"*. Thus, use of group-work is key as it encourages children to work together. Such a method is collaborated by Johnson & Johnson(2006) who states that group-work is important because the students will use discussions to learn. Such ideas are collaborated with literature that emphasises that group work is essential because it motivate

students, encourages active learning and the development of critical skills. Group promotes communication and decision making skills among the students.

Findings from the study reveals that there is need to enhance mobility and orientation of children who are blind in regular schools. The teachers indicated that children with low vision need to learn techniques that enable safe and efficient travel from an early age if they are to function independently in and be knowledgeable about their environment. A participant notes. *“Children with low vision need to learn techniques that enable safe and efficient travel from an early age if they are to function independently in and be knowledgeable about their environment”*. At the same time, mobility and orientation skills enhances self-esteem of the children. Willings(2019) states that children with blindness needs functional skills on assertiveness, the student with blindness needs to learn when and how to request or refuse help and how to make needs known. It also encourage independent effort and incorporate pro-active behaviour to reduce the likelihood of becoming dependent.

Summary of findings

Teachers’ understanding of inclusive education:

The study looked at teacher’s understanding of the concept of inclusive education. From the teacher’s responses, inclusive education involves children who are blind learning in the same class with those children who are sighted. Responses of the teachers in the study reveals that inclusive education is about children who are blind enjoying the same privileges in class alongside their peers who are sighted, sharing the same resources. As teachers interact with children in the regular class, they experience the inclusion of the blind children were they interact with the blind children alongside those children who can see.

Teachers’ methods of including children with blindness in regular classrooms:

The study revealed various methods that teachers use to include learners who are blind in regular classes. Teachers employ the method that involves learners with blindness to sit in front of the class to allow easy attention for the child. The other methods used by teachers include verbalisation that allows students understand what the teachers is saying, group work is also key in teaching, and cooperative learning allows the teacher to group students together and ask them to peer teach each other. The study also found out that teachers use individualised remedial approach that allows learners to get extra support s well as concretisation of concepts that creates an exploration and tactile understanding of the illustrations.

Teachers' difficulties in including children with blindness in regular classrooms:

The research findings show some difficulties faced by teachers in teaching children with blindness in regular classes. These difficulties include the low concentration span by children with blindness, inadequate teaching and learning resources in schools challenges in the use of the Braille, some of the teachers indicated that they have difficulties in brailing. Some of the difficulties experienced have to do with mobility and orientation and the class size are too big for effective teaching and learning. As revealed by the study other difficulties faced by children with blindness have to do with health challenges and some experience low self esteem due to the nature of their disability.

Teachers' successes in including children with blindness in regular classroom:

The study revealed that the teachers' successes in including children who are blind in regular classes include the use of pre and post vocabulary in teaching, encouragement of participation and cooperative learning. These approaches are helpful handling the education of learners with blindness in regular classes. The use of use of pre and post vocabulary helps students with blindness need assistance in making the connection between vocabulary and real objects, body movements and abstract ideas. Success in orientation of the student to the library, success in inclusion of blind students in regular classes is reflected by meaningful participation by students with blindness in class activities. Cooperative learning has been a success because in class, children are like a family and those who are not disabled can work together with learners who are blind.

Strategies that could improve the inclusion of children with blindness in regular classrooms:

As revealed by the research findings, strategies that teachers can use to improve the inclusion of children who are blind in regular classes include the use of teacher assistants are part of the support team, verbalisation approach when teaching, use concretisation teaching method to help students, audio materials to facilitate learning, group work and individual education plan. The study found that teachers use of self-

development plans for the children that are encountered on individual plans to help children with blindness to understand some of the concepts that are taught in class.

Conclusions

The following conclusions were drawn from the findings of the study:

The study concluded out that teachers make use of self-development plans for the children. Individualized Educational Plans (IEP) should be prepared for each child with blindness to cater for the individual needs to facilitate learning.

It is also concluded that teachers encounter a number of challenges such as inadequate resources, the class sizes in the regular classes is too big to cater for the needs of children with blindness. At the same time, the challenges of mobility and orientation are common. Teachers also expressed challenges of using the Braille.

It can be also concluded that teachers experience successes in the inclusion of learners with disabilities as the children are able to forge friendship and cooperation. The benefit of inclusive education is the development of friendship among learners and acceptance of individual differences. Inclusive education has provided all children with opportunities to develop friendships with one another. Friendship provide role models and opportunities for growth. At the same time, success is witnessed through active participation by the learners extra curriculum activities such as physical activities.

The study conclude that teachers employ various strategies to promote learning of blind children inclusive setting such as verbalisation, use of audio recording, provision of brailled materials as well as concretising teaching and learning for the blind children to be able capture the concepts taught in class.

Recommendations

In light of the findings and conclusions above, the researcher came up with the following recommendations.

There is need to address the issue of teacher-pupil ratio. Teacher overload may result in them neglecting pupils with disabilities. For example in government schools the pupil-teacher ratio is too high in many of the schools, with a single teacher often having to teach forty children. With that number of children in class, it becomes difficult for the teacher to give children the individual attention required.

The government should provide adequate resource to facilitate learning at schools. Resource constrains are the major factor that affects the provision of inclusive education. Therefore, more resources should be channelled towards the education of children with blindness in inclusive set-ups.

Schools should be in a position to give support to teachers with students with disabilities especially to consider the number of children in a class. Schools should also prioritise allocation of teacher assistants in classes with children with disabilities because it helps the class teacher to cater for the educational needs for all children in class.

Schools should enhance mobility and orientation of children who are blind in regular schools. Children with blindness need to learn techniques that enable safe and efficient travel from an early age if they are to function independently in and be knowledgeable about their environment. As such mobility and orientation skills enhances self-esteem of the children.

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