

## **TEACHING LEARNERS WITH VISUAL IMPAIRMENT IN AN INCLUSIVE EDUCATION SETTING: THE CAMEROON PERSPECTIVE.**

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### **ABSTRACT**

*This paper discussed the concept of visual impairment and its characteristics. The issues of inclusive education programmes of the visual impaired and the various strategies for teaching them are also presented. Furthermore, the educational provisions and support services needed for appropriate instructional delivery to person with visual impairment in inclusive settings are highlighted. In addition, some unique problems of inclusive education programme are discussed. The paper concludes with suggestions to classroom teacher for effective and appropriate teaching/learning process in an inclusive classroom setting.*

*Key word: Inclusive education, inclusive classroom and visual impairment.*

### **INTRODUCTION**

Life without sight is hard to imagine and is one of the most feared of human conditions (Hallahan and Kaufmann, 2000). Over half the information we receive about our world is through vision (Winzer, 1999). Visual impairment can interfere with the development of learning, mobility, social growth and adjustment. For this reason, persons living with visual impairment present unique educational needs which are best addressed early in life. These educational needs include concepts development, improving listening skills, and developing study and research skills. Skills in daily living, socialisation and recreation also need to be taught. Training to use any residual vision to the fullest extent is very important. They may also need to be taught alternative ways to read and write (Winzer, 1999). Visual impairment as a generic term is a wide range of visual problems. It is a concept that includes

categories such as total blindness as well as mild and serves cases. Educational definition of visual impairment emphasizes the functional visual efficiency because visual efficiency is unique to each learner. The way the learner uses the residual vision is the main concern of the educator. Visual impairment occurs when the peripheral field of vision is reduced (Leonard Cheshire Disability, 2011).

Vision plays a critical role in an educational setting. Visual impairment which is severe enough to interfere with progress in normal educational programmes is considered a visual handicap. Students must be able to see clearly, focus on objects far and near, be able to co-ordinate hand and eye, discriminate small differences and remember what they see. Difficulty in any of these areas may pose problems in the classroom. To summarise, an educational description of visual impairment may include the following:

**.Totally blind** which means the individual receives no useful information through the sense of vision and must use tactile and auditory senses for learning (severe impairment)

**.Functionally blind** which means learners learn mostly through other senses but may be able to use vision to supplement information receive from the other senses. They would need to use Braille to learn to read. Functional vision cannot be measured using visual field and visual activity tests.

**.Low vision learners** primarily use vision as a means of learning and with magnifying devices. They may learn to use print (Mild to moderate impairment)

**.Visual efficiency** refers to how well a person uses whatever vision present. This includes the ability to control eye movements to discriminate objects from their background, and to pay attention to impairment details (Beatrice and Janet 2003, Yao and Prosper 2011).

Inclusive education has been internationally recognised as a philosophy for attaining equality, justice and quality education for all children, especially those who have been traditionally excluded from mainstream education for reasons of disability and other characteristics. Inclusion education came as a rescue mission in the actualisation of educational and psycho-social services for person with visual impairment. Ajuwom (2008) identifies the following principles of full inclusion to include: placement in the neighbourhood schools, zero rejection philosophy, no special classes or school, co-operative teaching, and special education support given to regular education. For children or students with visual impairment to maximally

benefit from inclusive education programmes, there is need for a formal and clinical assessment of vision. In our society, most of the communities used the Snellen “E” and “N” charts as assessment tool. The purpose of it is to determine the nature (type and degree) of disability inherent in each individual with visual impairment. This will enable the class teacher and the specialist make provisions for them in terms of materials and support services (Beatrice and Janet, 2003).

## **CHARACTERISTICS OF PERSONS WITH VISUAL IMPAIRMENT.**

Characteristics of children with visual impairment are usually defined by degree of visual impairment, age onset, cognitive development, language development, motor and mobility development social and emotional development (Beatrice and Janet 2003). However,, there are educational characteristics of persons with visual impairment. These characteristics depend on the extent of visual efficiency of an individual learner. Learners with visual impairments demonstrate the following characteristics;

- Intellectual abilities are similar to those of sighted peers
- They are unable to use sight to assist them in the development of concepts
- Their concepts development depends on their tactile experience
- They are unable to use visual imagery
- They may display repetitive, stereotyped movement for example, rocking or rubbing of eyes.
- They are withdrawn, dependent and are unable to use non-verbal cues
- They have difficulty using spatial information and visual imagery and imagery problems with functional implications
- They have unusual facial behaviours such as a squinting, blinking or frowning while reading or doing close work.
- They are unable to locate or pick up small objects
- Physical indicators may include red eyes, swollen eyelids watery eyes or discharge eyes that do not appear straight, uneven seized eyes, eyes with drooping eyelids and crusts on lids between the eye lashes.
- They may have poor eye-hand coordination

- Usually have problems in distinguishing similar shaped letters, numbers or words for example b and d
- They have difficulty in writing or are not able to write within the lines
- They have difficulty in reading books within the normal range thus bringing the book/object closer to the eyes.
- Some students may be sensitive to bright light and may shut their eyes or squint.
- They may have difficulty to seeing in dim light or have inability to see in the dark (UNESCO, 2001, Yao and Prosper, 2011 ).

## **INCLUSIVE EDUCATION AND INDIVIDUALS WITH VISUAL IMPAIRMENT**

Inclusive education is essentially a programme that enables all learners with or without disability to participate fully in the life and work of mainstreamed settings to meet his or her learning needs. It gives equal opportunity for all learners to jointly undertake learning situations without discrimination and any learner considered to have a deviation as a result of a lost or damage in physical and mental development is given the right to belong to the mainstreamed setting. The understanding is that students with disabilities do not only have the right to education, they also have the right to be part of the mainstream education system (Iheanaho and Osuorji, 2008). For this reason, individuals living with visual impairment have it as a right to be in an inclusive classroom setting for teaching/learning process.

The practice of inclusive education is part of the universal rights to education which is extended to all children, the youth and adults with visual impairment inclusive. These rights are enshrined in the rights of the child, addressed in the international declarations like Education For All (1990), Equalisation of Educational Opportunities for person with disabilities (1993) and the Salamanca Framework for Action (2000). To achieve education for all, inclusive education emphasizes the placement of children in the regular class. That is why the Salamanca declaration stated that, schools should accommodate all children regardless of their physical, intellectual, sensory emotional, social, linguistic and other conditions. To achieve this, public

schools in Cameroon are integrating persons with visual impairment to provide appropriate educational programmes.

### **CURRICULUM CONSIDERATION FOR INDIVIDUALS WITH VISUAL IMPAIRMENT.**

As earlier mentioned, visually impaired person have the same range of intellectual ability as other students they typically have had fewer opportunities to acquired information usually learned visually(Pogrund and Fazzi, 2002). For example, students generally learnt maps by looking at them. Although students who are visually impaired can learn by feeling a raised map, this method is not as efficient as seeing it. The same problem can occur with academics. Students with visual impairment often experience learning difficulties simply because they cannot easily use vision to process information. With this, it is necessary to consider their curriculum within the classroom setting in order to meet up with the teaching/learning processes (Sacks & Silberman, 2000)

As is true for all individuals, students with visual impairment vary in their social and emotional development. Some students encounter little difficulties making friends, interacting appropriately with peers and adults, and developing a positive self-concept. Other students need support in these areas (Sacks & Silberman, 2000). The class teacher needs to adjust, to teach social norms that are valuable and necessary within the classroom setting.

An appropriate inclusive school environment for children with visual impairment should provide infrastructure that are disability friendly, teaching facilities(materials and equipments), human resources and other related services needed for the well being of the students within school milieu (Jatau, Uzo & Iere, 2002 )

### **STRATEGIES FOR TEACHING INDIVIDUALS WITH VISUAL IMPAIRMENT.**

The key element for decision making/ teaching adaptation is on the selection of medium of instruction and teaching strategy which enables the learners with visual impairment to be most proficient in learning and in life achievement. UNESCO (2001), Leonard Cheshire Disability (2011), state

some of the strategies for handling learners with visual impairment in the classroom. The strategies include:

- Using large writing on the chalk board or visual aids. The use of coloured chalks is recommended. Let the children come close to the board or teaching aids so that they can see more easily.
- Read aloud what is written on the chalkboard
- Prepare teaching aids that learners can read more easily such as large print materials. Other learners in the class could help prepare these or they can be produced by enlarging font sizes on computer printout. This can also help learners who have difficulties in reading.
- Learners may have difficulties seeing the lines on writing papers. They can be given papers with thicker lines drawn on it.
- Some learners will benefit from using magnifying aids. Two types are available. Ones that enlarge the whole page or line magnifiers, which are a useful aid to reading
- Encourage the learners to use a pointer or their finger when reading. Cover the rest of the page with paper except for the paragraph they are reading. Use a bookstand to avoid reflection.
- Children with poor vision need to learn through touch as well as through hearing. They should be given a chance to handle objects.
- Pair the pupil or student with a seeing classmate who can assist him/her to organise their work. The partner can help find the correct page, repeat your instructions and so on.
- Use verbal praise or touch to give the children encouragement
- Use the name of the pupil's or students during class discussions so that the individual knows who is talking.
- Computers offer particular support to learners with visual impairment. They can print out a large print copy, read text on the screen using the text on a voice synthesizer or convert it in to Braille.
- When teaching maths, the teacher should make use of abacus, tactile geometrical shapes, talking calculator and Braille ruler.
- Lessons can be taped using a cassette recorder for later playback at home or as revision. Learners who experience difficulties in writing can also provide

information on audiotape. Taped versions of books are sometimes available in libraries and resource rooms.

### **EDUCATIONAL PROVISION FOR INDIVIDUALS WITH VISUAL IMPAIRMENTS IN THE INCLUSIVE CLASSROOM.**

There are sensitive educational gadgets and services that are needed by visually impaired for successful inclusion. These range from equipments/facilities to educational arrangement and provision of services which include:

- Orientation and mobility (Cane skill)
- Portable note taker
- Larger format books
- Slate and stylus
- Magnifying glasses
- Specialised computer software(Jaws, Zoomtext etc)
- Electronic Braille writer
- Perkins Braille (Nsagha, 2012)

Classroom instruction for the visually impaired will require orientation and mobility, that is, the sense of where they are in relation to other objects and people in the environment and ability to move about within a space. They need to know where furniture, doorways, bookshelves and the teacher's desk are in the classroom, in relation to their own location. In addition, they need to be able to move from the classroom to the auditorium to the cafeteria and out of the bus in a timely manner. The task of the class teacher is to make sure that the classroom is spacious enough, well arranged and furniture place for proper learning opportunities for the visually impaired (UNESCO, 2001; Mawutor & Selete, 2004).

Teaching learning process would need to be modified to accommodate students with visual impairment. For example, you might need to identify the text books you plan to use in class prior to the start of the school year so they can be ordered in Braille, large-print, or audiotape format. For visual clarity, you might need to use a whiteboard with a black felt tipped marker instead of a traditional chalkboard, or to provide the student with paper that has heavy black line instead of traditional light blue ones.

## **SOME UIQUE PROBLEMS OF TEACHING LEARNERS WITH VISUAL IMPAIRMENT IN AN INCLUSIVE EDUCATION SETTING**

The visually impaired can excel in academic as every normal human being but there are unique problems they faced in classroom which include;

- Constraints of knowing and reading Braille. Braille reading and writing as beneficial as it is to the visual impaired has some problems or difficulties in learning it. These problems vary with individuals that is, the onset of the visual problem and age of the individual. For instance, when one is visually impaired from childhood, the problem is reduced as the sense of touch on the finger tips are easily developed unlike adult age and not to talk of teacher who need to know Braille in order to teach better (Nsagha, 2012).
- Difficulty in using assistive technology. The teaching/learning process offers the visually impaired unique needs, facilities and equipments. Many of these face difficulty learning how to use them. For example using the slate and stylus is writing from left to right as if you are writing Arabic. Problems of using Perkins brailier, all computer software and its accessory due to lack of training and even non-availability of those equipments (Nsagha, 2012)

### **Conclusion**

It can be concluded that maximum learning outcome expected of the children with visual impairment in an inclusive educational setting can be achieve if the classroom teacher should observe the following:

- Master the use of assistive technology devices necessary for classroom teaching/learning processes
- Ensure adequate classroom organisation to ensure easily movement and classroom interaction
- Adopt effective use of chalkboard by ensuring that essential information are written bully on the chalkboard for the partially sighted to see and
- The teacher should use appropriate tactile diagrams or models (instructional materials) while teaching in order to concretise concepts being taught.



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