



CHAPTER 23

COMMUNICATION STRATEGIES FOR TEACHING DEAFBLIND LEARNERS IN AN INCLUSIVE CLASSROOM

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Introduction

Communication strategies among individuals with disabilities varies from one condition to another depending on the degree or severity of the disabling condition, no single or combine strategy(s) can be said to be most suitable for all persons with disabilities. To determine a suitable communication strategy for any category of person with disability, there must be a proper assessment of the sensory channel (that is, the sense organ at which information can be processed). Igba and Nanjwan (2018) affirmed that identifying the sensory channels of which a learner takes in information is more appropriate than to force information through a wrong channel, and stated that it is more suitable to evaluate and carryout a functional assessment to ascertain the main sensory channel for information before any planned strategy.

Learners with deafblindness are not excluded, it is more cumbersome communicating with learners with deafblindness than those with a single handicapping condition. However, any deafblind communication philosophy should aim at working with each deafblind learner to developed the means for accessible language and communication to benefit such a learner. The strategy according to Perkins philosophy for communication strategy for the deafblind must be committed to maximizing the communication potential of each learner by exploring the use of all modes available. Deafblindness is a multiple handicapping condition that affect both the visual and the auditory processing of information affecting both expressive and receptive communication modalities. As such, they need proper care, understanding and maintenance for effective communication and education for a lifelong all round development. Communication therefore, is the passing of information from one person to another. For the conditions associated with deafblind learners, special communication strategies need to be adopted and those that meet their individual communication needs.

Inclusive classroom is a setting that include all learners with different educational needs in the same room and provide for it learner according to its unique needs. Olayi, (2013) elaborating on inclusive placement for learners with visual impairment emphasized that every child has a basic right to education,



unique characteristic, interest, abilities and learning needs. Therefore, a regular classroom must be design to accommodate the peculiarities of each learner. A regular classroom must take into account the diverse characteristic and need main to facilitate learning and access to regular school curriculum. Olayi, emphasized that a regular classroom with an inclusive practice is the most effective way to combat discriminatory attitude, create welcoming and inclusive community as well as achieve education for all.

Deafblindness is a combined vision and hearing loss which occur at birth, during birth or after birth which often comes with many challenges as a result of the sensory losses. Deafblindness is defined as a concomittant vision and hearing loss, but most often individuals have some degree of functional residual vision and hearing, while typically also having severe intellectual disability, cerebral palsy, and microcephaly (Heller, Forney, Alberto, Best & Schwartzman, 2009). In the eyes of Brum, (2016) deafblindness is defined as "concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for learners with deafness or learners with blindness. Deafblindness refers to a condition affecting a widely varying group of individuals who have a combination of an auditory and a visual impairment. In learners, the combination of visual and hearing impairments causes such severe and specific educational needs, especially, but not solely, in the areas of communication and language, that they cannot appropriately be educated in special education programs solely for learners with hearing impairments or solely for those with visual impairments. Because of the dual, concurrent disabilities, learners who are deafblind need supplementary assistance to address their educational needs (Akhil, 2000; Knoors & Vervloed, 2003).

Learners with deaf-blindness are those learners who have combine disabilities of blindness and deafness, sometime accompany with physical disabilities, cerebral palsy, autism and other disabilities. These categories of learners share challenges that impacts their ability to build family, social relationships, access community and the general education curriculum. The challenges in communication is as the result of the combination of disabilities. Therefore, specialist working with these learners need to have the understanding of vision, hearing, behavioral and emotional challenges of these learners. Also have the belief system that all learners can learn, communicate and deserve opportunity to reach their highest potentials. With these understanding and belief, proper communication strategies can be planned and implemented for learners with deaf-blindness.

According to Brum, (2016) the effects of these coexisting losses are greater than simply combining the effects of the hearing loss and the effects of the vision loss, as these senses strongly support one another. These losses have negatively impacted on these learners' ability to; access the environment, percept the immediate surrounding, incidental learning, learn language and communicate,



build meaningful relationships, develop communication partner, support, value and engage family, foster independence, self-determination and self-advocacy, above all environmental disorientation.

With the wide variations within the categories of deafblindness, in regard to visual abilities, hearing abilities, cognitive abilities, motor abilities, and overall learning style of these learners, no particular combination strategy is appropriate for all the learners. Therefore, communication needs of these learners must be addressed on an individual basis. It's also important to think clearly about receptive and expressive communication needs each may need to be addressed differently. The categories of deafblind learners include; (1) Deafblind learners with residual vision: This category of learners are those with a combine hearing and vision loss with remaining visual acuity that information can be process with vision, for instance a learner with residual vision (partial sightedness or low vision) can easily make use of the residual vision. This category requires communication skills that are more appealing to the sensory channel (vision) and those that can enhance hearing such as; gestures, large print, tactile signs, sign language etc.

(2) Deafblind learners with residual hearing: This category has combine hearing and vision loss with remaining hearing acuity capable of processing sound through the auditory organs (the ears). The communication skills require for this category should be the one that are more appealing to the auditory organs and those that can enhance vision such as; audio devices, speech, braille reading and writing, tactile signs etc.

(3) Total deafblindness: This category of deafblindness are those with a combine total hearing and vision loss with a severe impact in the educational and social life of the learner. The communication skills require for these learners are the combine communication skills for both hearing and visual impaired learners such as; tactile signs, braille reading and writing, touch cues, tactile pictures, tactile objects, taste, palm printing, sign language etc.

In this chapter, we shall discuss; the methods of communicating with deafblind learners, ways of communicating with deafblind learners and strategies of enhancing the communication of deafblind learners aim at educating and creating awareness on the communication needs of learners who live with this handicapping condition.

Methods of communicating with deafblind learners:

1. One - to - one method: One-to-one instruction still serves as the primary method by which instruction is pass to more learners with disabilities, some studies suggest that this model can have a negative effect on learners (Persson, 1994; Burwell, 2006) particularly in relation to its perceived teacher-centeredness (Carey, 2010). Others claim that in one-to-one teaching, 'skill development can be unpredicted', and learners will often lack the ability to adapt their learning to diverse contexts beyond the classroom (Mills, 2002). Carey (2010) proposes that one-to-one can have long-term



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- adverse effects on the student as learner, leading to dependency, limited employment opportunities and disillusionment. Moreover, despite the growing scholarly literature on one-to-one and the continued prominence of this model it remains one of the best methods for communicating and instructing learners with deafblindness based on their unique peculiarities.
2. Non-verbal methods: Nonverbal communication is communication without the use of words. We all use these throughout our lives. Likewise, learners who are deafblind and moving into a verbal language system, will continue to use nonverbal expressions to supplement and support language (Crook, Miles, & Riggio, 1999). Burgoon, Guerrero, & Manusov, (2011) sees nonverbal communication as the transmission of messages or signals through a nonverbal platform such as eye contact, facial expressions, gestures, posture, and the distance between two individuals. According to Manusov (2016) nonverbal communication rests on the argument that there is more than one means by which we process (both decode and encode) information. That is, the cues in the range that we call “nonverbal” actually have distinct processing and expressive properties. For example, given that we are biological beings, our means of communicating are tied in with neurological systems that allow us to engage interactively with others. There are actually many “skills” involved in the encoding and decoding of nonverbal behavior (Riggio, 2006). Decoding skills are often referred to with the label “nonverbal sensitivity, Manusov (2016).” Even within this category of skill, there is diversity. For instance, one can be skilled specifically in noticing cues, interpreting them accurately, and responding in ways seen to be “appropriate.” People can be skilled in decoding particular nonverbal functions; that is, some are able to pick up on others’ emotions, deception, and/or identity cues. Moreover, people may vary on the extent to which they can decode from particular cues (e.g., face, vocalics) or can discern when cues are contradictory to one another. The in-depth understanding of the nonverbal skills and its interpretation is what is needed in communication with deafblind learners.
 3. Verbal methods: Verbal communication is the communication of ideas through the use of words, spoken or not spoken, using a standard vocabulary and structure (Crook, Miles, & Riggio, 1999). Also verbal communication according to Heine, & Browning, (2002) is defined as communication to express our views, information, and ideas in the form of sound and words. The spoken part usually involves face-to-face communication. Communication through radio, television, or mobile phones is also called verbal communication as well the series of words and grammar rules also define the language. Hence, two or more persons can quickly communicate if they are aware of their languages. It might be difficult for people to communicate without a common known language. For effective communication therefore, there must be a common language,
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which everyone present can understand and effective verbal communication must encompass good relations at the workspace and home (Petroff, 2010). It is necessary also for the teacher to win the trust of the deafblind learner in the communication process, this is to enhance effective communication among the two.

Ways of communicating with deafblind learners:

The various ways of communicating with deafblind learners as listed by Crook, Miles, & Riggio, (1999) include;

4. Gestures: These are more easily recognized body language and signals and require less interpretation on the part of the receiver than nonconventional movements. They also depend more on imitation of how others communicate and the ability to copy movements. Examples: Shaking head for “no,” nodding for “yes” and beckoning for “come”.
5. Vocalization: Vocalizations are the use of the voice, without words or formal language, for communication. They may be unintentional cries, laughs, or screams but still communicate reactions and feelings (the same vocalizations can also be intentional and directed toward a specific person). Other examples: Babbling play intended to get an adult to join in and imitate as well as imitation of the sound a toy makes as a way of asking for it.
6. Objects: The use of objects is a natural part of the interactions of most learners and their parents or friends. For example, a child with deafblindness might hand a toy to someone as a way to ask for help activating it. Objects are accessible to touch and handling and therefore can ground interactions in real and shared experiences. They should always be used in conjunction with other forms of communication such as gestures, signs, and speech, and in the course of ongoing conversations. The symbolic use of objects is to represent activities, places, and things.
7. Pictures: Pictures may be drawn, printed, or photographed. They can be drawn by a child to communicate ideas or selected from a set to indicate a choice. The use of pictures as an organized system for communication (might include tactual pictures, made with a variety of textured materials that can be recognized by touch).
8. Touch cues: All of the above methods of communication can be used by both a learner with deafblindness and their communication partner as they interact with each other. Touch cues are different in that they are used by the communication partner to help a learner anticipate what is going to happen. The following are examples of touch cues appropriate for infants and young learners: Gently lifting the child’s arms and pausing before picking them up, gently tapping the child’s bottom before diapering, stroking the child’s face before wiping it with a cloth etc.
9. Palm printing: This involves the person who is communicating a message “writing” block letters on the palm of the receiver using the index finger as



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- if it is a pen. Printing on the palm is often used by people who are deafblind whose primary mode of communication is sign, when they are communicating with non-signing people.
10. **Speech:** The expression of communication through speech and the understanding of it through hearing or lip-reading.
 11. **Body Language and Signals:** Various body movements communicate feelings, ideas, responses, and desires. They may be intentional or unintentional. They may be directed to another person or a reaction to a situation. They can involve any part of the body and be quite specific and clear, or very subtle. Often, understanding this type of communication is dependent on the interpretation of the receiver. Examples: Smiling, tensing muscles or grimacing to indicate discomfort.
 12. **Sign language:** The use of specific hand shapes, body movements, and facial expressions to represent ideas and concepts. Sign language can be received visually or tactually. With tactual reception (tactile sign) the receiver's hand(s) rest(s) lightly upon the hands of the signer, who signs using a typical sign space and standard signs. Learners who are able to receive signs visually, but who fatigue easily, may benefit from tracking. This is a strategy that involves the learner placing his hands on the signer's forearms so he can keep track of where the signer's hands are moving, thus reducing visual fatigue.
 13. **Print:** Can be regular-sized or large for people with low vision. May also involve the use of various techniques of magnification.
 14. **Electronic communication systems:** technological devices used to receive and express information.
 15. **Braille:** Braille is a tactile code for writing and reading by persons with vision loss.
Others ways according to Hersh (2013) include;
 16. **Tactile sign languages:** The deafblind person holds the other person's wrists and feels their movements as they sign.
 17. **Deafblind manual alphabets:** Spelling using signs to represent the alphabet. There are two main approaches: The speaker signs the letter onto the listener's flat palm; the listener puts their hand over the speaker's vertical hand and feels the movements of their fingers. Both approaches are quicker.
 18. **Tadoma:** In this way the deafblind person puts one hand on the other person's chin, lips, or throat to feel their movements as they speak.

Strategies needed to enhance communication of deafblind learners:

According to Helen Keller Institute for the deaf and deafblind (2003) the following strategies can be considered in enhancing communication of deafblind learners;



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19. Turn taking: This requires responding to the learners' behavior and communication as well as allowing the learner to respond to that of the instructor. This creates foundation for development of communication. It is an important strategy because the learner learns best from a model that is close to his level of communication. Activities like building blocks, singing and clapping can be considering when learning these skills.
 20. Choice making: This is a democratic way of allowing learners to make choices on what to learn, how to learn and what way it should be learnt. This creates opportunity for active participation as well as it offers a sense of control.
 21. Imitation: Imitation is modeling and demonstrating the desired response which encourages the learner to imitate such behaviors.
 22. Exploring together: This is the careful studying of objects or ideas through contact tracing, critical thinking or manipulation aim at finding facts. Exploring enables the learner to feel secure about the world around him. It helps to make new recoveries and learn about the world. It stimulates the learner's curiosity about the environment and develop skills to learn new things.
 23. Manipulating: Games enhance the learners' ability to coordinate his eyes and hand, which enables the learner to have control over toys/objects. By manipulation he learns all about objects and how to use them, which enhances his self-respect/independence in future.
 24. Socialization: This is an interaction between two or more people, it involves give and take, it also offers opportunity for observation and imitation. Learners with deafblindness should be encourage to engage in constant interactions with their communication partners.

Conclusion

It is noted that education is a fundamental right for every learner as such, no learner should be discriminated and no handicapping condition should be a barrier to the learners' education. Therefore, deafblindness shouldn't be an obstacle to any child's education. Proper assessment to communication needs of learners with deafblindness should be carryout to identify their individual communication needs for proper educational placement. However, some communication methods like one- to one, nonverbal and verbal communication methods had been identified in this discourse as some appropriate methods of communicating with deafblind learners. Some ways of engaging deafblind learners in communication were also identified such as gestures, vocalization, palm printing, objects, pictures, sign language, braille, tactile signs, electronic communication, print, speech, body language, tadoma among others. To enhance deafblind learners' communication, the authors identified some strategies as; turn taking, choice making, imitation, manipulating, exploration and socialization. Finally, authors had recommended that teachers (both regular and special) should be given opportunities to participate



in in-service programme, seminars and workshop with focus on blind education in general and deafblind education in particular to properly equip them for effective service delivery to learners with deafblindness.

Implications

The implication of this chapter to learners with deafblindness, teachers of deafblind learners and other service providers including braille instructors and braille transcribers, tactile sign language instructors, social workers, mobility instructors and all who are engaged in service delivery to this category of learners with special needs is to first of all remain committed to ensure the inclusion of deafblind learners in our teaching and learning for all round development of learners with special needs generally and those with deafblindness in particular.

This chapter, present deafblindness being a multiple handicapping condition as a difficult task for teachers, parents and all service providers, but we are all encourage to with patience and dedication recognizing the humanness in all learners with special needs and especially those with deafblindness, be focus and purposeful in our curriculum design and package delivery in manners that can help deafblind learners attend the set goals of each of the packages or lesson they are to be taught and learn. Finally, all stakeholders in the education of learners with deafblindness should seriously uphold the philosophy that support a total communication for deafblind individuals and work with each child to develop the means for accessible language and communication. We should all be committed to maximizing the communication potentials of each child by exploring the use of all mode available including touch cues, objects, gestures, pictures, print or braille, eye guess as well as informal to formal systems including low and high tech to establish expressive and receptive information in the classroom.

Suggestions

1. Stakeholders including Government, Parents, Special Educators, Support staff and Non-Governmental Agencies whose rule affect learners with deafblindness should as a matter of deliberate policy ensure early identification and intervention as this will go a long way to confronting difficulties associated with teaching and learning process for deafblind especially in the regular classroom.
 2. All regular classroom shoulder with the responsibility for including deafblind learners must have the following service providers:
 25. A special educator verse in braille and sign language, preferably tactile sign language skills.
 26. A regular teacher with love and commitment to serving learners with special needs.
 27. Support staff including a brailist and sign language interpreter for one-to-one communication.
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28. A caretaker preferably one to care for the hygiene condition of the learner and the environment.
3. It is the opinion of these authors that for efficiency and effectiveness deafblind learners are best served in residential schools where movement to and from classrooms can easily be ensured.

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