The Effectiveness of Verbal Guidance and Manual Guidance Techniques in the Teaching and Learning of Learners With Visual Impairment In Nigeria

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ABSTRACT
Disability always caused deep seated problems of different categories and magnitude. In the education sector, for example, disabilities have much negative impact on learning with the attendant effect on participation of learners with disabilities. This paper highlights some of the effectiveness of using verbal guidance and manual guidance techniques in the education and training of learners with visual impairment in Nigeria. It has been observed that providing quality education and training for children with disabilities in our society is somewhat expensive and require the involvement of different professionals. Also, special education is said to be special in that it employs special techniques and methods in service delivery to learners with special needs. The education of learners with visual impairment in Nigeria is pioneered by the efforts of the missionaries. These learners were the earliest people with disabilities to receive formal education in the country. Children with visual impairment have other ways through which they gather information. These include; touch, hear and smell all of which has great impact on learning. Most inexperienced teachers have always perceived learners with visual impairment as inadequate, especially when it comes to practical activities of the school curriculum. Because of the impairment, they do not always receive the best from their teachers due to inappropriate teaching methods employed by the teachers. It usually appears as if there is a gap between the expected and reality, when it comes to the involvement of these learners in practical subjects. Special teachers are professionals that are conversant with what teaching methods and techniques influence instruction, concept formation and skill acquisition in learners with visual impairment. Although teachers tend to be selective and inconsistent, especially in the manner they teach some subjects that are practical in nature, Verbal Guidance Techniques, Manual Guidance Techniques and Mechanical Guidance Techniques are the most preferred by many of them. A combination of verbal and manual guidance techniques is very effective in the education and training of learners with visual impairment.

Keywords: Adaptation, Kinaesthesia, Manual guidance, Manual, verbal guidance, Mobility, Multi-sensory approach, Orientation and Mobility.

INTRODUCTION
It is a well-established fact that the presence of visual impairment sets limitations and devastation, but it does not stop children who are unique individuals with diverse interest and aptitude that can be trained, from learning, all things being equal. The practice of excluding children with visual impairment from practical oriented aspects of the educational curriculum stemmed from the traditional believe that without sight, a person cannot attain any significant educational achievement. But events have since overtaken this myopic thinking as persons with visual impairment have demonstrated tremendous ability to adjust to almost every aspect of school work and schooling. Some children with visual impairment have also demonstrated superior academic achievement compared to their sighted peers. However, such successes are usually a direct result of several factors such as home influence, the social support system, the school environment, instructional strategies and the involvement of specialist professionals among others. Instructional strategies are mostly used to apply learning theories in a useful way and to obtain the target outcomes. When special educators use the
appropriate techniques in teaching learners with special needs generally, the desired educational outcomes are easily realized. Teaching learners with visual impairment is quite demanding and require a combination of different techniques for guiding them through educational success. Guidance is required in the process of transmitting skill information to the learners. There are a number of methods used in this transmission process, and the methods are called Guidance Techniques. Four types of techniques, which have been popularized by practical subject instructors, are: Visual Guidance Techniques, Verbal Guidance Techniques, Manual Guidance Techniques and Mechanical Guidance Techniques. The techniques of each of the practices comprise principles and methods used for instructing the learner. These Guidance Techniques are examples of teaching methods, commonly used in practical curriculum disciplines like physical and health exercise. However, these techniques are not only a preserve for, but have been found to be equally appropriate in all practically oriented subjects, inclusive of Orientation and Mobility and All Day Living Skills. The choice of teaching methods or techniques to be used in these practical lessons is largely dependent and or, influenced by a number of factors, like the condition of the child, the information to be conveyed and or the skill that needs to be taught, learnt and mastered.

Verbal Guidance Technique and Manual Guidance Technique
With visual impairment, learners have been known to always experience difficulties in a number of curriculum areas in which spatial awareness concepts and movement are involved. They also encounter difficulties in pursuing educational curriculum programmes with a practical slant, where they are expected to understand concepts of distance, measurement, dimensions and some industry related terms (Macions, 1997). These problems are a result of poor concept development in these learners, especially if no proper intervention strategies are employed. Unlike the sighted children who attain concept development through visual assimilation, those who are congenitally blind, expect all concepts to be specifically and emphatically taught to them. Since it is always prudent to use a combination of forms of guidance, and explore the Verbal and Manual Guidance Techniques, as prerequisites for concept formation to learners with visual impairment, it is important to understand what the two of them stands for.

Verbal Guidance Technique
Verbal guidance technique as the name suggests, is an explanation or description of an action leading into techniques required for performing a practical task. For instance, Verbal guidance in sport is described as a spoken advice to improve athlete’s performance (http://www.answers.com). According to Allan (2013), one of the most important features of Verbal Guidance Technique is that it is best used in conjunction with visual guidance. Such a combination, therefore, poses harsh realities to someone without sight, and who always fail to easily learn certain skills. This is because most regular teachers of practical subjects may not always know how to fully describe an action, or how to physically perform an activity to learners with visual impairment. This then leads to failure in developing mental image/picture, which could have been aided by visual guidance.

While verbal method is one of the four types of guidance techniques popularized by teachers of practical subjects, regular observation and interaction with learners with visual impairment has shown that the verbal guidance technique becomes least useful, especially if used in isolation. For this reason, verbal technique has been known as most often used in conjunction with visual and manual guidance techniques, especially for the partially sighted (depending with the residual sight, otherwise it would be absurd combining verbal technique with any other technique). When using the verbal guidance, the teacher has to always check if the performer understands what is being said, if they can remember the information being given and if they can translate this into an action. The rule of thumb here is that verbal guidance should not only be considered as a mere explanation, but should involve immediate and accurate verbal description of the techniques required by one with blindness, for performing any practically oriented task, and not only those sporty in nature.

Strength(s) of Verbal Guidance Technique
Verbal Guidance Technique (VGT) has direct relevance to learners with visual impairment, who cannot afford to miss out any detail during the course of instruction. It helps these learners to carefully listen to descriptions, allowing image formation and mental mapping, right at the time the skill is being taught. Giving such prompt and accurate feedback has been known to trigger and promote the correct action during practical activities. This can be achieved for instance, by telling a learner with visual impairment to efficiently demonstrate certain skill when; exhibiting lower-body
and upper-body protection techniques, walking in unfamiliar rooms, especially during an orientation and mobility exercise. Through careful listening, one develops the ability of detecting near and distant pitch sounds. By so doing, children with visual impairment will also develop the ability to detect and circumvent hazards as they move along in familiar and unfamiliar environments. Such obstacle detection, described by Tooze (1981) as the ‘Doppler Effect’ is not to suggest the use of additional sense on the part of the learner, but a careful attention, especially to distant pitch sounds. The use of verbal guidance technique, sharpens the auditory sense, allows the learner with visual impairment to develop a sense of obstacle perception, if the Doppler Effect takes place. The children are trained to walk towards a large object, such as a wall. In such training, the trainees have to stop immediately they first perceived the presence of an object. As a principle based on the intensity of pitch and variation of echoes, the Doppler Effect that pitch of a sound rises as a person moves towards its source (Welshard and Blash, 1985). In agreement with Tooze (1981), it was pointed out that the Doppler Effect becomes an important stimulus in the acquisition of Orientation and Mobility skills by children with blindness. This idea is also further clarified by Hallahan and Kauffman (1997) when they explain that people with blindness are able to detect subtle changes in the pitches of high frequency echoes, as they move towards objects. In their findings, they reported that an individual’s footsteps would produce a broad spectrum of sound frequencies, all of which would be reflected by a wall. With teaching and auditory training in echo locations, children with blindness have been known to show some independent travel skills, as they effectively perform some obstacle avoidance tasks.

This has been viewed as a plausible technique since it enables children with visual impairment to develop echo cue perceptual judgments, especially in the face of objects or targets that the sighted do not usually possess to the same degree. In a research study, Bledscoe (1980), submits that echo feedback is an important factor that characterizes this method. It has been observed that some teachers are reluctant to offer the much needed thick verbal descriptions of a task/activity, yet this is an important factor that characterizes this method. It has been observed that some teachers are reluctant to offer the much needed Verbal Guidance Technique, not without reasons though. Most popular reasons raised by teachers are that

(i) Too much descriptive information might overload the child with visual impairment short-term memory

(ii) The performer might lose concentration if overloaded with descriptions

(iii) The language needed to suit and/or match the practical activity may be too complex for the
learner with visual impairment to comprehend, and worse still
(iv) The instructor may fail to find suitable terms to describe a phenomenon.

While it is arguably true that the individuals who are visually impaired learn to rely on audition to compensate for their lack of vision for skill acquisition, studies have shown that skill acquisition for a person with blindness is not exclusively based on echoes, nor is it all auditory, in many normal settings. In other words, the auditory sense is not the only compensatory sense to be used by individuals with blindness to acquire the much needed practical skills, as Kohler (2006) also reported. Apart from the sense of hearing, persons with visual impairment will also rely on their other senses, like the tactile sense, for their learning. Because tactile sense involve the use of touch and feel, the method of initiating the process is what is referred to as, Manual Guidance Technique (MGT).

**Manual Guidance Technique**

Manual Guidance Technique is another very important technique useful in guiding learners with visual impairment through concept formation and thorough understanding of the world around them. It can easily be described as a coaching method used in practically oriented subjects. Demonstrations are important training component for learners with visual impairment to conceptualize a skill. For this reason, Manual Guidance Technique, employ demonstrations, as a process of teaching through manipulatory examples. This process should never be taken as an option because they are key in helping to guide the performer with blindness. The technique involves manual manipulation, a process of physically holding, moving or controlling the body part(s) with hands during a practical activity, hence the term Manual Guidance Technique (Dhemba Ishmael, 2015).

Manual Guidance Technique is used to demonstrate certain skill, by moving the performer into the position to complete the action. In order for a person with blindness to develop mental images or pictures required to reproduce the required movement during participation in physical activities, instructors are also expected to employ the technique, as opposed to only confining themselves to the use of the verbal guidance. Manual guidance involves physical support for learners with visual impairment by a teacher/instructor, moving students’ arms through the required motion. In essence, all examples through this technique have to be tactual or manual in nature. This is useful in order to give a child a feel for the posture and movement. It is important to note that the technique involves a type of forced response, where a learner has to just comply, like in Physical Education and Sport’s Command Style.

There is a general feeling that manual guidance may be used to emphasise a fact, therefore combining it with verbal guidance, is the best way. This combination is important since the chances are high that non-verbal communication may easily be lost by the child with visual impairment, if not used with other techniques like verbal guidance. A combination of the two will not only raise student interest, but also reinforce memory retention.

Persons with visual impairment, especially the totally blind, are generally lacking in coordination. Because of this, Manual Guidance Technique has been popularized as a sensory medium that helps one with blindness to develop mental images, by the use of the tactile/haptic sense. From that premise, teachers have to, therefore, prepare the learners to go through the tasks of manual manipulation. Commenting on the nature of practical tasks related to the manual manipulation, Vannier and Gallahue. (1978), wrote that often, the feet and hands of learners with visual impairment should be manually guided by the teacher/instructor so that they can get the tactual feel of the desired movement. Teachers must also be skilled in giving brief and accurate verbal description of activities as they practically manipulate and demonstrate different movements. In using Manual Guidance Technique, the feet and hands of the learners, should be guided by the teacher, so that they can get the tactual feel of the desired movement, for proper skill conceptualization. This procedure may be understood better through the study of Stanley (1977), who reported that manual guidance techniques were effective in order for pupils to understand body posture and movement during physical activities, and that the teacher should demonstrate by manually guiding the body parts of the individual child with visual impairment through the desired movement. This enables the child to get the tactual feel of the illustrations and movements needed.

The above crystallises how the teachers should operate, in order to make pupils with visual impairment participate in practical related subjects of the school curriculum, which use movement and physical activity as the medium of learning and expression, like Orientation and Mobility and
adapted Physical Education and Sport. In orientation and mobility for example, such movements which demand manual manipulation may, among other things, include: The Search Technique, The Upper and Lower Body Protection Technique, The Sitting Technique, Passing through narrow paths, and/or such related complex movements. Since the manual manipulation is directed to individual pupils. Murch (1976) observes that very few teachers will have the patience needed to individually guide pupils with visual impairment manually. This is especially true if the number of learners to be guided is more than normal. Cheffers and Evafl (1998) and Sandhu et. al. (2000) conclude that engaging pupils with visual impairment, (especially the congenital ones), requires much stamina on the part of the teacher/instructor, than may be experienced when handling a similar practical lesson with sighted pupils. In using this technique, one has to be physically fit to withstand the, “wear and tear”, of engaging the learners in physical education activities. Teaching experience has shown that the demands of these practical subjects, and the expectations of pupils with visual impairment, would make teachers/instructors hate the whole idea of making pupils with visual impairment participate in practical lessons. Naturally, most teachers are not enthusiastic about what they call an „extra burden” imposed by going through manual manipulation tasks.

While the manual manipulation is very good for skill conceptualization and acquisition and for learners with visual impairment, inadequate knowledge about causes of disability may hinder some teachers from assisting the learners through the much needed tactual manipulation process. Dhemba (2015) wrote that it is a thing of regret to note that even today; there are some teachers/instructors who still believe that blindness is contagious. For this reason, such teachers may not be prepared to use the much recommended Manual Guidance Technique, where they would be expected to tactually manipulate a learner with a disability. This phenomenon is however common among regular teachers in an inclusive setting.

**Strength(s) of Manual Guidance Technique**

Children without vision will normally develop a “fear of the unknown”, as they navigate a given environment. By physically touching and manually guiding children with visual impairment, such fears and anxiety are drastically reduced. In the process, MGT builds confidence by eliminating all possible dangers around the child. It has to be noted that one of the strengths of MGT is that it can be used for obstacle detection, similar to what obtain in the use of VGT. The ability to detect physical obstructions in the environment, especially during O&M and Physical Education and Sport activities, is a large part of one’s physical skills (Hallahan and Kaufman, 1997). Without much activity, it is regrettable that most senses for children with visual impairment naturally remain dormant. This always remains so, unless there are some activities to manually train and guide them to circumvent environmental hazards. The use of manual guidance technique is very effective in initiating typing lesson to learners with visual impairment. Since all the skills involved in typewriting depend largely on manual dexterity, the learners will benefit immensely from manual guidance to master the skills. Each key on the “Home Rows” of the typewriter for instance should be manipulated with specific fingers of the hand. By carefully guiding the learner, it is possible to help them to gain proficiency in the use of the typewriter, and attain effective communication necessary for further education and training. Another area of the learners training that requires the use of manual guidance is Activities of Daily Living such as personal health management, and routine chores. Children with visual impairment should be trained on self-help care like washing, bathing, brushing, and even sweeping. These activities requires maximum use of the hands, hence, Manual Guidance Technique becomes inevitable in training them.

**Challenges associated with the use of Manual Guidance Techniques**

While Manual Guidance Technique has also been celebrated as one of the fundamental techniques for the development of mental images and mapping for one bereft of sight, some challenges have also been known to characterize this technique. It has to be always remembered that one of the goals to educate persons with disabilities is to enhance independence. By manually guiding, some critics of this method have it that MGT may be seen as a teaching method that can usurp the much needed independence of learners with visual impairment. By the use of this technique, the performer may become too much dependent on the support, thereby interfering with the need to sharpen other senses like auditory and kinaesthesis. Dhemba (2015), is of the opinion that if Manual Guidance Technique is used continuously and unsparingly, the learner may become over dependent on it, thereby ending up losing motivation and self-confidence. It is also important to emphasise the manual guidance has
to be very knowledgeable about the method; otherwise incorrect feel of targeted skills may result in formation of bad habits on the part of the learner.

Teachers have always reported challenges that come with trying to make pupils with Visual Impairment, especially those with total blindness from birth, conceptualize their practical illustrations and demonstrations. Since manual manipulation is meant to be specifically directed to individual learners, teachers do not always have the patience needed to manually guide pupils with visual impairment, at individual level. Some instructors even express their reluctance to take children with visual impairment for practical lessons because of the demands that come with the MGT. Those willing to go the “extra mile” do so many times because there is a special allowance to be earned.

It may sound ridiculous to imagine that some regular class teachers still believe that blindness is contagious, but a closer look at their attitude will reveal this phenomenon. Although some of the teachers are aware that touch and audition are the predominant sensory avenues for persons with Visual Impairment, some unfounded traditional beliefs always precluded them to do what they are supposed to do right. Expecting such teachers to have a positive attitude and employ the MGT may be very difficult.

Some teachers/instructors also feel that the tactual processes of the MGT tends to unsettle and deskill them, since they always say that the whole process was notoriously difficult to follow and/or apply. Hiding behind their fingers, these teachers have been known saying that those children with visual impairment were not diligent enough to participate in practical activities. Ultimately, such learners remain sidelined as others take up practical activities of the school curriculum. Such practice makes one assume that some teachers forget that in practical lessons, teaching does not just end by telling (verbalizing), but getting pupils with visual impairment to participate in order to conceptualize skills. This view seems consistent with Stanley (1977), whose research findings revealed that, in order for a learner to understand body posture and movement during physical activities, the teacher should demonstrate by manually manipulating the concerned child through the desired movements. This enables the child to get the tactual feel of the illustrations and movements needed with visual impairment.

What emerges from teachers’ reactions, therefore, show great inconsistency with the philosophy of inclusive educational practice. The explanation for this inconsistence could be that teachers were not in a habit of conducting the MGT during practical lessons. This seems to confirm some utterances made when one teacher would frankly state that it was “up to the teacher either to take up the MGT or leave/ignore it, since this technique is just but an extra burden...” In both theory and practice, some teachers are just not keen to properly manually instruct learners with visual impairment. A great number of teachers, for different practical subjects are also not aware of how to organize pupils with visual impairment in successive and harmonious ways to achieve movement patterns and/or skills during practical lessons. Since pupils with visual impairment are not ordinarily exposed to exploratory methods, as noted by Judd and Buell (1991), some teachers are generally not comfortable with how to fully organize other senses in order to engage pupils with visual impairment in mental orientation.

Proponents of the whole school curriculum and inclusive education ideology, the likes of Hallahan and Kauffman (1997), have observed that teachers have negative attitudes towards the participation of pupils with visual impairment in practical lessons because of the demands of these pupils, who, because of the nature of their disability, would naturally not profit from visually based cues as feedback. Since pupils with impaired vision lack the natural and concrete experiences necessary for obtaining meaningful concepts, some teachers, as Hallahan and Kauffman (1997) noted, tend to forget that such pupils rely much more on tactile and auditory information to learn different skills. For this reason, the practical subject teachers/instructors should, therefore, prepare tactual and auditory readiness materials and/or equipment, like jingle and goal balls, just as seeing pupils also need visual readiness materials/equipment for skill development. However, some teachers always find the MGT notoriously difficult to follow and apply, thereby blocking these pupils from participating in such practical subjects. This remains so although the MGT has wide acclaim for learners with visual impairment.

There can also be several problems that have been known to hinder learners with visual impairment from participation in practical activities. Some learners may not be satisfied with the manner in which teachers “coerce” them into participation. But this does not necessarily have to be a problem,
especially if the practical activities are stimulating and interesting enough. Learners may also sometimes complain that teachers had hostile feelings about their abilities to participate in practical activities. Teachers’ attitudes and practices therefore, have direct impact on the learner’s readiness to cooperate in practical activities. Lack of confidence culminates in pupils developing a sense of low self-rating, thereby contributing to their withdrawing from educational efforts (Dhemba, 2015).

CONCLUSION
One of the primary purposes of teaching learners with visual impairment is to enhance independence. Such independence can only be achieved by addressing all aspects that relate to concept development and skill acquisition by these learners. To enable concept development, teachers/instructors need to provide learners with the necessary resources they need in order to be functional and successful in different curriculum disciplines. To achieve this, teachers have to first and foremost ensure that children’s compensatory senses are well developed, to enable children with to extensively and effectively use these senses to form concepts and acquire skills. With regards to guidance techniques, teachers have to equip the learners with visual impairment with verbal and manual guidance techniques, in order for them to create images and mental pictures, as they take part in school activities, which may be practical in nature. From the discussion above, the Verbal Guidance Technique has been portrayed as a plausible method which ultimately makes one develop echo cue perceptual judgments, a skill that the sighted may not possess to the same degree. Through the Verbal Guidance Technique, learners with visual impairment ultimately develops sufficient audible information about concepts, events, and the location of hazards, which enables them to move about safely, efficiently, comfortably and independently. To achieve the above, teachers/instructors have to give positive thick descriptions of activities they would want the learner to take part in. For easy conceptualisation, such descriptions should be given in relevant and accurate, terms. It is also important to note that, for positive results, accurate verbal feedback should always be used, when the child is most attentive. Like in VGT, the teachers’ demonstrations in the Manual Guidance Technique have to also be made as accurate as possible, with the intended movements broken into sizeable parts, directed in relevant, ordered and sequenced movement patterns. For the good of the learner with visual impairment, teachers have to be very knowledgeable in guidance skills. Over and above everything else, teachers/instructors have to work towards improved attitudes in order to guide their learners appropriately. Independent living is better and easily achieved by the use of a combination of the Verbal and Manual Guidance Techniques.

RECOMMENDATIONS
The following recommendations are given to get the best from the use of Verbal and Manual Guidance Techniques in the education and training of learners with visual impairment:

- Children’s deficiency in the visual channel should be compensated by information gained through other channels like the auditory and tactual senses.
- Teachers / instructors have to train children with visual impairment to become good listeners, to always pay particular attention to even finer details through their auditory sense.
- Children have to be trained to find a way around obstacles (circumventing) environmental hazards, by means of other well sharpened compensatory sensorial channels.
- Teachers/instructors have to develop techniques for sharpening kinesthetic skills, in order for children with visual impairment to become aware of all kinds of navigational dangers and hazards within a given environment.
- Since the Manual Guidance Technique is directed to individual learner, teachers should have the patience needed to guide the pupils with visual impairment.
- Teachers should be involved in administering body movements, by manually manipulating the movement of the individual learners, with accurate feedback.
- To make guidance effective, teachers/instructors have to give positive thick descriptions of activities they would want the learner to follow. For easy conceptualization, such descriptions should be given in relevant and accurate terms.
- For positive results, accurate verbal feedback should always be used, when the child is most attentive.
- Teachers/instructors should receive enough education that will help to dispel negative and superstitious notions, like the myth that blindness is contagious.
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