

Appropriate mobility training a tool for proper adjustment for persons with visual impairments

(overview essay)

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Abstract: *This paper looks into the relevance of mobility training in the adjustment process of persons with visual impairment. It concentrates on a brief history of how mobility started as a profession, discussing the skills that are learnt in the field of mobility training. It lists some electronic aids/devices used in mobility training which are stated based on the technology either low technology or high technology. Low technology aids/devices include: white canes, white walking sticks, guide canes, long canes etc., while the high technology are laser canes, wheel chairs, pathfinder, sensory 6, the sonic pathfinder etc. Finally, the paper concludes that appropriate mobility is a tool for proper adjustment of people with visual impairment regardless of other disabilities, age and onset of impairment in life. Mobility, therefore, is a lifelong learning process.*

Keywords: *Mobility, mobility training and specialist, person with visual impairment*

1 Introduction

Movement is a building block for learning. As a child grows, he explores his world and as he has physical contact with it, learning takes place. Children with visual impairment typically need encouragement to explore their surroundings due to the lack of visual stimulation (Martinez & Moss, 1998). People with visual impairment see world as a unpredictable place, or not motivating due to the handicapping condition that limit their normal life functions. As we all know, vision is necessary for movement, flexibility is also required. Visual impairment is categorized into low vision and total blindness. According to Nwachukwu (2008), most students who are blind have light perception but a small number have absolutely no vision. While students having low vision can learn from their residual vision and other senses, those with

no vision cannot. The impairment may occur before birth, during birth or later in life (before or after acquiring the ability to recall visual memory). This impairment affects the individuals in so many ways but the effect varies depending on when it occurred. Lowenfeld (1974) suggested that blindness imposes three major restrictions on the individuals: their range and variety of experiences, their mobility, and their ability to control the environment and themselves in relation to it. All these restrictions limit visually impaired persons adjustment physically, socially, emotionally and otherwise. In the pursuit of helping people with visual impairment appropriate mobility training need to be in place.

2 Mobility

Mobility refers to the ability to move safely, efficiently, and effectively from one place to another. This implies being able to walk without tripping or falling, street crossing, and use of public transport (Saverburger, 2013). Mobility is an important life-long learning process. Blindness affects the formation and development of concepts. A child with vision learns a lot through observation, imitation and participation in activities at home and at school. He learns continuously as he interacts with people in the society. He has deep understanding and clarity of concept as he interacts continuously in different settings. Visually impaired individuals have restricted opportunities; they are overprotected by their parents, teachers and friends due to the fear for their safety and wrong perception of their ability. Because of their impairment they are not allowed to participate in household chores, run errands or interact in many other ways with the community. The restriction of mobility, limits their range and variety of experiences and opportunities. Ayoku (2006) said that mobility confers the ability to explore one's environment, opportunity to interact with people, objects and events. This in turn aids proper adjustment in the society. It aids concept formation and development, widens social interaction and also encourages independence.

2.1 Brief History of Mobility

The profession of mobility began to develop during, and immediately after, World War II when soldiers who had been blinded in battle were sent to recuperate at Valley Forge army general hospital. In order to serve better the large number of blind soldiers who required special training and services, the military recruited Richard E. Hoover, an army sergeant, who was assigned to the center for the treatment of blinded soldiers at Valley Forge Army Hospital in 1944. In the same year, Russell Williams, who was blinded by enemy action in France, received medical rehabilitation at the Valley Forge Army Hospital, and in 1947 C. Warren Bledsoe joined the

hospital. Both Hoover and Bledsoe had previously worked at the Maryland school for the blind. These three men made significant contributions to the development of a new profession orientation and mobility.

The blinded soldiers were highly motivated to be successful and Richard Hoover believed that the traditional strategies taught and used to travel independently were inadequate. In response, he developed a technique for using a cane that is lightweight and longer than support canes. This technique and cane revolutionized independent travel for blind people and are still used today.

2.3 Mobility Training for the Visually Impaired

Mobility training is very important and essential for people with visual impairment. Mobility training involves all activities and experiences directed towards making the individuals with visual impairment functional and able to acquire skills necessary for independent travel, as well as how to travel safely both in indoor and outdoor environment. Mobility training is usually given in a rehabilitation centre as part of the adjustment program for individuals with visual impairment. It can either be on a one on one basis or in groups. This program includes basic orientation and mobility skills. Mobility instruction is demonstrated by certified personnel called mobility specialist. Mobility training helps to develop skills required to move around safely in the environment. Mobility training may involve advising a person on how to use their residual vision to move around safely or may involve an in-depth training on how to use a mobility aid such as a white cane, a guide dog, electronic aids etc. It is also based on guided learning and structured-discovery training. What follows are the skills of mobility that a certified mobility specialist must demonstrate.

- **Sensory development:** It involves helping one to know where one is and where one wants to go using one's senses in combination with self protective techniques and human guide technique to move safely through the environment.
- Solicit and/or decline assistance.
- Finding destinations with strategies that include following directions and using landmarks and compass directions.
- Technique for crossing streets, such as analyzing and identifying intersections and traffic patterns.
- Problem-solving skills to determine what to do if one is disoriented or lost or needs to change route.
- Using public transport and transit systems.

There are two distinctive instructional methods:

1. Guided Learning: Is organized in a rigid sequence of instruction which include sighted guide, dog guide, use of cane etc.
2. Routes travel/structured – discovery training: involves discovery, learning good spatial and motor skills.

2.4 Mobility Specialist

Mobility is a profession specific to blindness and low vision. Mobility training is taken charge of by mobility specialist; the specialist provides instructions that can help the visually impaired to develop or relearn the skills and concepts they need to travel safely and independently within their homes and communities. Mobility specialist provides services across the life span; teaching infants, children in pre-school and school programmes as well as adults in a variety of community-based rehabilitation settings. A resource or itinerant teacher according to Ayoku (2006) specializing in the education of the visually impaired is also qualified to train the pupils in orientation and basic mobility skills.

2.5 Electronic Aids for Mobility

There are a lot of mobility devices or aids that individuals with visual impairment use. Most are considered low technology because they are very simple aids for example, a cane. Most people with visual impairment use low technology devices/aids for two reasons:

1. They are relatively not expensive to purchase and maintain.
2. One must know how to use them before other basic devices (Martinez & Moss 1998).

White canes and walking sticks: there are three different types of white canes and also a white walking stick available, but only two of the white canes are classified as mobility aids.

1. A white walking stick provides physical support for a person and indicates that the individual has sight loss. It is not a mobility aid.
2. A symbol cane is used to indicate that a person holding it has impaired vision and may need assistance. It is not a mobility aid and does not provide physical support.
3. Long cane is a mobility device which is used by sweeping the cane in an arc from side to side along the ground beyond the width of their body. This technique

locates potential hazards and changes in the texture and level on the ground. Use of long cane requires training.

4. Guide cane is a mobility aid with more limited use than a long cane and, therefore requires less training. It can be used in a diagonal position across the lower part of the body for protection or using a scanning technique to detect curves and steps. It does not provide physical support.

High Technology Devices Include:

- 1) **The sonic pathfinder:** this is a head mounted ultrasonic device designed for outdoor use in conjunction with a long cane, dog guide or residual vision. It gives the user advance warning of objects which are located within the travel path.
- 2) **Sensory 6:** this is a device that detects objects that are farther away than a long cane, and users hear tones that indicate the distance between the objects. As objects are approached the tones become higher pitched.
- 3) **Laser cane:** this device operates with three lasers that emit invisible beams of light from the cane. The beams detect drop offs and obstacles at different heights and distances.
- 4) **Wheel chair pathfinder:** this is a set of small rectangular boxes mounted to the front of a wheel chair. It detects obstacles too as one moves with the wheel chair.

Mobility should start at an early age with basic body awareness and movement. Mobility aids/devices help individuals with visual impairment to travel safely without stress.

3 Relevance of Appropriate Mobility Training to Adjustment Process of Persons with Visual Impairments

Mobility according to Slideshare (2010) is defined as physical movement and the negotiation of obstacles and hazards. It is the aim of obtaining freedom of movement without coming to any harm, safety in travelling as well as minimizing the level of stress placed upon a visually impaired person. Appropriate mobility training helps a lot in the adjustments process of persons with visual impairments. It helps in various ways regardless of the handicapping condition or presence of other disabilities. Mobility training brings about physical, social and emotional adjustment and transition into adulthood. Mobility training is relevant in diverse ways.

1. Appropriate mobility training will create ability to move with confidence to maximize independence regardless of age or inexistence of other disabilities. Persons with visual impairments will be able to develop and master skills and concepts

necessary for safe and efficient moving within their world without depending on anybody around.

2. Mobility training teaches the brain in such a way that purposeful movement will be initiated and comes or occurs naturally for persons with visual impairment. This means that they will move purposefully without anybody forcing them to move or travel.
3. Mobility skills will enable the visually impaired to explore and interact with the world, including the home, school and community. It will help them to understand their environment.
4. When this understanding occurs, they will begin to adjust properly by feeling safe; safety creates confidence and a sense of well being in them.
5. Mobility instruction provides real experiences essential to all children and adults who are visually impaired. The skills learned reduce isolation by giving the visually impaired a common ground for interacting with family, friends and significant others. Mobility training helps them to adapt and prepare for future/gainful employment which will increase their life output and potentials making them live a normal and meaningful life in motivating environment which makes them independent thereby increasing their economic status.
6. It gives the opportunity to evaluate and assess their abilities in unfamiliar environment by using their limited vision in the neighborhood or community.
7. Mobility training also helps parents to remove the fear of their child getting hurt as he moves around or towards voices.

4 Recommendation

1. Awareness should be made to the general public about the relevance of mobility training in the adjustment process of persons with visual impairment. This will change the negative attitude of the public and government towards blindness. Awareness of the relevance of mobility training in the adjustment process of persons with visual impairment will prepare the minds of the public that even with visual impairment these persons are still capable of making it in life independently.
2. The government should give their support to persons with visual impairment through funding and provision of adequate facilities and equipment needed in rehabilitation centers for appropriate mobility training. More centres should be put in place to accommodate the enrolment of persons with visual impairment in the community.
3. Advocates should be about the relevance of mobility training to NGOs, public and private organizations for them to have interest in supporting the program by

funding it because most of the visually impaired persons may not be financially capable to enroll on the program/training.

4. Parents, teachers and significant others should remove their fears of what visual impairment can cause and rather capitalize on the strengths of these persons by supporting them through mobility training programs so that they can adjust properly in the society.
5. Counsellors and specialists should counsel parents to stop confining their visually impaired children at home but to allow them to have appropriate mobility training which will in turn aids their proper adjustment in the society making them achieve their set goals in life.

5 Conclusion

Mobility training offers a lot to persons with visual impairment by enabling them to perform daily activities like going to a common place so that they can interact with others and develop interpersonal relations with friends, teachers and significant others in the society and for them to make purposeful movement. Mobility as we can see in this paper aids proper adjustment of persons with visual impairment psychologically, emotionally and psychosocially. It broadens their awareness of the environment which in turn, results in increased motivation, independence and safety. Appropriate mobility is therefore, a tool for proper adjustment of persons with visual impairment for both adults and the young ones.

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