Global Journals LaTeX JournalKaleidoscope™
Artificial Intelligence formulated this projection for compatibility purposes from the original article published at Global Journals. However, this technology is currently in beta. *Therefore, kindly ignore odd layouts, missed formulae, text, tables, or figures.*

Conceptualising Orientation and Mobility Practices within the Expanded Core Curriculum

Shazia Malik[1], Umi Kalthom Abdul Manaf[2], Maimunah Ismail[3] and Nor Aniza Ahmad[4]

[1] Universiti Putra Malaysia

Received: 15 December 2017 Accepted: 5 January 2018 Published: 15 January 2018

Abstract

This paper intends to examine the orientation and mobility practices within the Expanded Core Curriculum. The study conceptualises and methodologically sheds light on the practices of orientation and mobility (OM) within the expanded core curriculum (ECC) for visually impaired learners. OM practices have become significant as these are essential in independence and one of the main components of the expanded core curriculum of visually impaired learners. The OM practices are done in the school boundaries by OM experts to facilitate and accommodate visually impaired learners for better independence. However, owing to these practices, but not as part of the expanded core curriculum, results are less responsive to visually impaired learner?s needs (Aziz, 2007). Existing research has focused on OM practices, which are the integral part of the expanded core curriculum for the independence of visually impaired as most were not conducted to address the OM within the expanded core curriculum for visually impaired learner?s. Therefore, this study attempts to conceptualise the orientation and mobility practices within the expanded core curriculum.

Index terms— orientation and mobility, orientation and mobility practices, the expanded core curriculum

1 Introduction

oss of sight can have an effect on an individual's everyday life in all aspects and significantly limit some of its important elements. One of these vital elements is the area of Orientation and Mobility (O&M) for the visually impaired learners **??**Ruzickova, et al. 2009). **??**ill and Ponder, (1976, p. 3) define Orientation and Mobility as "the ability to move safely, efficiently, and gracefully through all environmental conditions and situations with as much independence as possible". Visually impaired learners are encouraged to use the O&M skills, to develop their essential and basic skills, to build their ability of confidence to take responsibility for their decisions and to travel within all other environments, including their schools.

Visually impaired learners and other individuals with disabilities require support for successful transitions to post-school adult life. Accordingly, in the 1990, amendments to the Individuals with Disabilities Education Act (IDEA, 2004) mandated transition services for students with disabilities. The reauthorisation of **??**DEA (2004) describes the transition process as an individualised, results-oriented process that includes a set of coordinated activities for children with disabilities. The emphasis of transition services is to improve the functional and academic achievement of visually impaired children, and facilitate them in school related activities. One key aspect of this process is the provision of related services including O&M practices.

For visually impaired learners to fully participate in school and community life, the O&M skills are required. According to Jacobson (1983), the ability and usage of O&M skills affects the visually impaired learners' access to educational opportunities. O&M skills require their family support throughout the formal training of the visually impaired. Most O&M skills are learned and taught within the school boundaries, with vital aims and goals, with having the ability to travel independently in all environments. Thus, O&M practices need to be part of the education for visually impaired learners.

O&M was first identified in 1872 by Levy, with the use of cane techniques and its further development was started in 1929. However, professional formal efforts in the area of O&M were only started in the 1940s or after the World War II for some of the soldiers who got blinded and returned to their homes. The Hines Rehabilitation Centre, the predecessor of orientation and mobility and foot travel training started to function (Weiner & Siffermann, 1997). Then, a training protocol (O&M) was established in collaboration with military personnel to illustrate the instructions to vision loss.

2 II.

3 Definition of Orientation and

Mobility (O&M) Orientation and Mobility (O&M) refers to a set of skills that are designed in familiar and unfamiliar environments for safe and efficient movement of visually impaired children (Hill & Ponder, 1976). Hill and Ponder (1976) further explained that Orientation is "the process of using one's senses to establish one's position and relationship to all other significant objects in one's environment" (p. 3). Further, Orientation is the intellectual part of moving from one place to another known as travel. It is the procedure of using sensory information and knowledge to understand one's location in the environment and how to move to get to a desired location, thus, "orientation includes using language, understanding cause and effect, and learning about concepts that relate to objects and things" (Hill & Ponder, 1976). In addition, orientation involves increasing awareness of one's body, developing sensory skills and learning to use landmarks to assist in travel. Mobility is the second element of O&M. Mobility refers to the physical part of travel, which includes confident, safe and efficient movement from one place to another (Pavey, 2003).

4 III. the concept of orientation and mobility

According to Hill and Ponder (1976), Orientation and Mobility (O&M) involves two distinctive, but equally dependent, essential components: (a) orientation and (b) mobility; both are essential for the purposeful movement of the visually impaired. Several researchers have revealed the importance of O&M in the area of visual impairment as an essential component that needs to be gained byvisually impaired learners (Hatlen, 1996; **??**azekamp & Huebner, 1989; Huebner, Merk-Adam, Stryker, & Wolffe, 2004;Lowenfeld, 1964). Furthermore, O&M was particularly highlighted in the National Agenda as the crucial component of the expanded core curriculum for visually impaired learners (Huebner et al. 2004).

For the attainment of many educational benefits for visually impaired learners, O&M skills were developed (Lowenfeld, 1964) to develop integration into the community, gaining employment and social networking opportunities **??**DeMario, 1990). Mobility involves the process of moving through space to reach a destination. The term "orientation and mobility" was originally referred to as "foot travel" **??**Bledsoe, 1980). In general, individuals with visual impairments learn independent travel skills through orientation and mobility (O&M) instruction. Meanwhile, Jacobson (1993) defined that "O&M is the teaching of individuals with visual impairments the concepts, skills, and techniques necessary for safe, efficient, and graceful travel under all environmental conditions" (p. 3).

Orientation and Mobility (O&M) services are defined in the Individual Disability Education Act (IDEA, 2004) as the "services provided to blind or visually impaired children by qualified personnel to enable those students to attain systematic orientation to safe movement within their environments in school, home, and community" (p. 140). More specifically, IDEA mandates instruction in the following areas as appropriate for each student: IV.

5 Dimensions of Orientation and Mobility

Children develop skills through both incidental and direct instructions. For children who are blind and visually impaired, many skills that are incidentally learned by their sighted peers require a direct instruction and at times, compensatory techniques, to be developed. Mobility is the ability to safely and independently travel, which can be a specific area of difficulty for students with vision loss. O&M instructions are recommended by vision professionals to provide direct instructions in concept development, orientation, and travel skills in addressing the particular needs of students with visual impairment. Thus, O&M is recognised as an essential element of the Expanded Core Curriculum (ECC) for visually impaired students (Hatlen, 1996).

Visually impaired children need to get sequential and direct instructions from an O&M specialised teacher (Lohmeier, Blankenship, & Hatlen, 2009). In order to move through environment independently and purposefully, these visually impaired children need to acquire the O&M skills **??**). The acquisition of independent travel skills is essential for visually impaired students' to participate in academic, non-academic and extracurricular aspects of their education (Riley, 2000).

6 V. Practices/skills of Orientation and Mobility

Visually impaired learners need to develop the O&M skills to participate in their community and school. This ability affects the use these skills for the attainment of educational opportunities and for them to have the ability to improve the quality of life, there is a need to acquire these skills. O&M skills are mostly taught by O&M teachers within the school boundary with the purpose of getting independency in the environment. Sensory

perceptions are also needed in orientation skills to reach a desired goal and determine one's position to get to the destination (Hill & Ponder, 1976). Sighted guide technique (commonly known as human guide) is basically a system of mobility, which is developed for visually impaired learners for their active participation in different environments, including travel with the guidance of a sighted person using his sight (Hill & Ponder, 1976). These important skills or practices are learned by the visually impaired learners with the help of a sighted guide, and both are demonstrated as a team for efficient movement. There is a need for physical contact and training, which are considered essential parts between the guide and visually impaired learners .

7 b) Self-protection

Many hazards can be avoided physically with the use of good protective techniques. The use of hands and arms is required as bumpers in self-protection techniques. Any injury to the face and body can be reduced in this way. According to Jacobsen (1993), forearm and upper and lower hand techniques are useful in protecting body positions. In addition, moving into open spaces, these self-protection techniques are used to help sighted guide, trailing, and use of cane to ease travel in outdoor and indoor areas.

8 c) Physical Spaces Familiarisation

Physical spaces familiarization on helps the visually impaired with O&M instructions in seeking the information related to an area. The technique of selffamiliarization is used for self-exploration, which is part of self-familiarisation, in buildings, classrooms, larger areas, and hallways (Jacobsen, 1993). In many cases, this guidance need to be completed with an instructor's assistance.

9 d) Use of Mobility Techniques

Mobility techniques are mostly used to give instruction on directions. There is a need for professional guidance to use the tools and methods to acquire mobility. For traveller's cognitive and physical ability, the instructions are modified to be used in a particular environment and several hazards that are encountered. For human/sighted guide, the instructions include: mobility techniques such as pre-canes, canes, alternative or adapted mobility devices, electronic travel aids (ETAs) and dog guide.

10 e) Travel Techniques

Transportation/travel with O&M instruction for railways, buses, cars, airplanes and taxis are areas of transportation which are necessary for visually impaired learners (Jacobsen, 1993). In addition to this, the application of skills and practical practices and O&M skills are also part of the training in the environments with different features. Particular instructional methods are required with O&M domains in a specific environment involving travel techniques.

11 f) Street Crossing

Mot visually impaired require a sighted person to help them cross streets and travel in neighbouring area or community area. Being a master of particular O&M skills that are needed in safe crossing of streets is important for them. Instructions on crossing the streets

12 5.Travel Techniques 6.Street Crossing

always require a coordination of other skills including orientation, conceptual skills application, techniques of physical familiarisation, and also cane techniques (Bischof, 2008).

13 VI. Orientation and Mobility: The Potentials

Orientation and Mobility are recognised as the fundamental elements for visually impaired education (Suterko, 1973) In 1997, **??**DEA (2004) or Individuals with Disabilities Education Act recognised orientation and mobility as a vital aspect for every visually impaired learner, which is supported in their education **??**IDEA, 2004). These services include:

1. Environmental and spatial concepts and their usage with senses (such as sounds and vibrations). 2. The use of long cane for travel skills. 3. The use of low vision or remaining vision and aids. 4. Some other techniques, tools and concepts.

14 VII. The Expanded Core Curriculum

"Disability-specific curriculum" is commonly known as the expanded core curriculum. The expanded core curriculum was developed in response to a report issued by theU.S. Office of Special Education and Rehabilitation Services (Department of Education, 2007), thatacknowledged that the needs of visually impaired students were not being met by thestandard curriculum (McDonough et al., 2006). The National Agenda argued that the expandedcore curriculum reflects the best practices that are necessary so that students with visualimpairments may directly access the core curriculum. Thus, the expanded core curriculum can beviewed as an indirect service

that allows students with visual impairments the opportunity toreceive an appropriate education (Hatlen, 1996; Huebner, Garber, & Wormsley, n.d). Further, visually impaired learners need modifications in the existing curriculum and special services, along with the adopted materials and existing services (Ali & Hameed, 2015).

The expanded core curriculum reflects a "body of knowledge and skills that are needed by students with visual impairments due to their unique disabilityspecific needs" (American Foundation for the Blind, n.d, p. 100). It contains nine critical components of compensatory or functional academic skills, including communication modes, orientation and mobility, social interaction skills, independent living skills, recreation and leisure skills, career education, use of assistive technology, and sensory efficiency skills (Levin, 2011). Nonetheless, little empirical evidences are available to document the effectiveness and the roles of the expanded core curriculum (ECC) in the transition to adulthood, particularly the O&M of visually impaired students. The following sections include a discussion on factors related to the nine areas of the ECC; however, it is crucial to note that this study primarily focuses on the O&M of visually impaired learners with parental involvement in the context of Pakistan. A summary of all essential components of ECC is given in Table 2.

15 Compensatory Skills

These skills are needed by visually impaired students to access the general educational print material.

16 Orientation and Mobility

The ability to move in one's environment is key to independence. Orientation and Mobility includes traveling instructions, at home, schools and communities, as well as instruction for cane users.

17 Social Skills

The blind and visually impaired students need to interact and form work and personal relationships. Social Skills that must be taught to students who are visually impaired include: looking at a person talking to them, how close they are to stand next to people, and how and when to shake hands, hold doors and other skills that sighted individuals learn through observation.

18 Independent Living Skills

These skills are needed in order to participate in everyday living. All activities such as grocery shopping, food preparation, laundry and personal hygiene need to be taught systematically.

19 Recreation and Leisure Skills

Like independent living skills the skills involved in recreational and leisure activities require a systematic approach for acquisition. These activities can be as simple as learning to swing and as complex as sailing.

20 Career Education

In order to make good career decisions, a blind and visually impaired student needs to have the first-hand experience of job opportunities as there is no opportunity for observation and incidental learning as available to their sighted peers.

21 Assistive Technology

Assistive technology consists of the tools that the blind and visually impaired use to access and share information.

22 VIII. CONCLUSION AND IMPLICATIONS

Orientation and Mobility (O&M) are integral components of the Expanded Core Curriculum (ECC) (Hatlen, 1996). Children with visual impairments require direct and sequential instruction provided by O&M specialists (Lohmeier, Blankenship, & Hatlen, 2009) to enable them to acquire these necessary skills to interact with others **??**Pavey, Douglas, McLinden, & McCall, 2003). Parents of visually impaired need the support and information from O&M teachers to solve the unique needs of these visually impaired children (Kirk, 2011). Individuals with visual impairments learn independent travel skills through orientation and mobility (O&M). This study has discussed on how to assist visually impaired children tobe more independent in their lives with beneficial delivery of O&M. As stated in the related literature, limited research has been conducted to explore Orientation and Mobility within the Expanded Core Curriculum for visually impaired children to make them independent in the host country. In conclusion, this research has added to the body of literature through with its contribution by providing orientation and mobility specialists and other special educators some suggestion for them to plan appropriate implementation of Orientation and Mobility practices within the Expanded Core Curriculum for visually impaired children.

23 Visual Efficiency Skills

These Skills are taught to low vision students. Visual efficiency is the ability to use the vision that is available to individuals effectively.

24 Self-determination Skills

Unlike their sighted peers, students who are blind and visually impaired need to learn the choices available to them, how to advocate for themselves and make informed decisions.

Visually Impaired. Journal of Visual Impairments & Blindness, 596-598. [1] [2]

Figure 1:

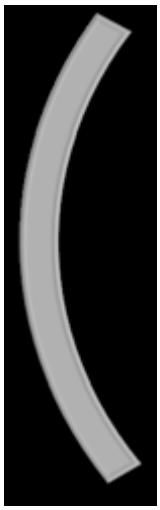

Figure 2:

1

Figure 3: Figure 1 :

[1] © 2018 Global Journals

[2] Conceptualising Orientation and Mobility Practices within the Expanded Core Curriculum

Figure 4:

2

Conceptualising Orientation and Mobility Practices within the Expanded Core Curriculum
Year 2018
Volume XVIII Issue IX Version I
G)
(
Global Journal of Human Social Science -

Figure 5: Table 2 :

[Lohmeier ()] 'Aligning State Standards and the Expanded Core Curriculum: Balancing the Impact of the No Child Left Behind Act'. K L Lohmeier . *Journal of Visual Impairment & Blindness* 2009. p. .

[Pavey et al. ()] 'An investigation into the mobility and independence needs of children with visual impairment. Part 1: The development of a mobility and independence curriculum framework'. Thom Pavey , S Douglas , G Mc Linden , M Mccall , S . *British Journal of Visual Impairment* 2003. 21 (1) p. .

[Ali and Hameed ()] 'Dealing with Visual Impairment: Experiences of Youth in Tertiary Education'. R Ali , H Hameed . *Social Sciences Review* 2015. 3 (1) p. .

[Riley ()] *Educating blind and visually impaired students*, R Riley . 2000. p. . (Policy guidance)

[Lohmeier et al. ()] 'Expanded Core Curriculum: 12 years later'. K Lohmeier , K Blankenship , P Hatlen . *Journal of Visual Impairment & Blindness* 2009. 103 (2) p. .

[Wolffe and Kelly ()] 'Instruction in the areas of the Expanded Core Curriculum linked to transition outcomes for students with visual impairments'. K Wolffe , S M Kelly . *Journal of Visual Impairment & Blindness* 2011. 105 (6) p. .

[Kirk et al. ()] S Kirk , J Gallagher , M R Coleman , N J Anastasiow . *Educating exceptional children. Cengage Learning*, 2011.

[Marsh et al. ()] 'Legal issues for orientation and mobility specialists: Minimizing the risks of liability'. R A Marsh , F Hartmeister , N Griffin-Shirley . *Journal of Visual Impairment & Blindness* 2000. 94 (8) p. .

[De Mario ()] *Non-academic competencies for elementary level students with visual impairments. Paper presented at the 68th annual CEC convention*, N De Mario . 1990. Toronto, Canada.

[Hill and Ponder ()] *Orientation and mobility techniques: A guide for the practitioner*, E W Hill , P Ponder . 1976. (Amer Foundation for the Blind)

[Bledsoe ()] 'Originators of orientation and mobility training'. C W Bledsoe . *Foundations of Orientation and Mobility*, B B Blasch, W R Weiner, & R L Welsh (ed.) (New York) 1997. American Foundation for the Blind. p. . (2nd Ed)

[Lowenfeld ()] *Our blind children, growing and learning with them*, B Lowenfeld . 1964. Springfield, IL: Charles C. Thomas. (2nd Ed)

[Aziz and Madani ()] 'Parental involvement in the education of their school going disabled children: Reflexions'. H Aziz , M Madani . *Journal of Studies and Research in Islam* 2007. 7 p. . Pakistan Al-Suffah Centre of Education and Research Trust

[Bischof ()] *Practices for Determining the Provision of Orientation and Mobility Instruction for Students with Low Vision*, E M Bischof . 2008. (Pro Quest)

[Mcdonnall ()] 'Predictors of employment for youths with visual impairments: Findings from the second National Longitudinal Transition Study'. M C Mcdonnall . *Journal of Visual Impairment & Blindness* 2011. 105 (8) p. .

[Haze amp, J., Huebner, K.M. (ed.) ()] *Program planning and evaluation for blind and visually impaired students: National guidelines for educational excellence*, Haze amp, J., & Huebner, K.M. (ed.) 1989. New York, NY: American Foundation for the Blind.

[Public Law 105-17. Final Regulations. 34 CFR Part 300, Assistance to States for the Education of Children with Disabilities. 11. *Public Law 105-17. Final Regulations. 34 CFR Part 300, Assistance to States for the Education of Children with Disabilities. 11. Individuals with Disabilities Education Act Amendments of IDEA*, 1997. 2004.

[Table 1-3. Students Ages 6 through 21 Served Under IDEA. Part B. Disability Category and State: Fall ()] *Table 1-3. Students Ages 6 through 21 Served Under IDEA. Part B. Disability Category and State: Fall*, 2007. 2006. U.S. Department of Education.

[Jacobsen ()] *The art and science of teaching orientation and mobility to persons with visual impairments*, W H Jacobsen . 1993. New York: American Foundation for the Blind.

[Hatlen ()] 'The core curriculum for blind and visually impaired students, including those with multiple disabilities'. P Hatlen . *Review* 1996. 28 (1) p. .

[Weiner and Siffermann ()] 'The development of the profession of orientation and mobility'. W R Weiner , E Siffermann . *Foundations of orientation and mobility*, B B Blasch, W R Wiener, & R L Welsh (ed.) (New York, NY) 1997. AFB Press. p. . (2nd Ed)

[Mcdonough et al. ()] *The Expanded Core Curriculum for Students who are References Références Referencias*, H Mcdonough , H Sticken , S Hack . 2006.

[Sapp and Hatlen ()] 'The Expanded Core Curriculum: Where we have been, where we are going, and how we can get there'. W Sapp , P Hatlen . *Journal of Visual Impairment & Blindness* 2010. 104 (6) p. .

[Huebner et al. ()] *The national agenda for the education of children and youths with visual impairments, including those with multiple disabilities*, K M Huebner , B Merk-Adam , D Stryker , K Wolffe . 2004. New York: AFB Press.

[Suterko (ed.) ()] *The visually handicapped child in school*, S Suterko . B. Lowenfeld (ed.) 1973. New York: John Day. p. . (Life adjustment)