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Students with Visual Impairments and Additional Disabilities

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Abstract

The learning options for students with special needs in Malaysian educational system fall within three broad categories of special needs: visual impairments, hearing impairments and learning disabilities in special schools and integration programs in mainstream schools. A placement of students with visual impairment is mainly based on the visual impairments they are experiencing. However, it is found that there are also those who experience additional disabilities. This paper discusses the factors that contribute to these students experiencing additional disabilities and the complication related to that. The implication of these disabilities on the education of these students will be highlighted.

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1. Introduction

Most people believe that person with visual impairment is a blind person. In reality, people who are considered visually impaired are those not only blind but they may also those who have some useable vision. They also maybe those who may have some visual perception of light and dark. Visual impairments may often due to loss of visual acuity or visual field. Categories such as blind and partially sighted as used for medical and legal purposes can carry different connotation from the same terms used in educational contexts (Webster & Roe, 1998). According to Resnikoff et al. (2004), visual impairment encompasses of low vision with visual acuity of less than 6/18, but equal or better than 3/60, and blindness of which visual acuity is less than 3/60. The loss of vision will makes difficulty for students to complete daily tasks without specialized adaptations. As stated by Layton and Lock (2001), the educational performance of a child who is visual impaired would be affected even with correction. Most children with visual impairments need some extra help to succeed in school. This is because of the challenges that visual impairment (and sometimes additional disabilities) pose to learning. Students with visual impairments are placed in the special schools for the visually impaired and as well as in the integration programs in the mainstream schools.

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At present, there are 6 special schools for the primary level and 2 for the secondary level. The integration programs for the visually impaired are run in 10 primary schools and 14 secondary schools. In total, there are 782 students with visual impairments (Kementerian Pelajaran Malaysia, 2007).

Although the Ministry of Education are responsible for providing educational services for children with mono disability, there are also those who have more than one disabilities present in the school system. Siti Zahrah (2004) explains that these situations may due to the ministry's mono disability policy which explains why those involved in the disability certifying process as reluctant to acknowledge the other disabilities that children with sensory impairments may have. As a result, these children with additional disabilities may be being diagnosed as children with mono sensory disability. A possible explanation is given by Erin and Koenig (1997) who explain that it is easy to detect visual disability as it "seems easier to define, comprehend, and treat; therefore, it may be the only disability diagnosed, when in truth both conditions or a learning disability only are present". Erin and Koenig further explain that learning disabilities are often overlooked in students with visual impairments due to the following factors:

1. visual impairments are usually detected early in life, whereas learning disabilities usually become apparent in the elementary grades;
2. learning difficulties are sometimes mistakenly attributed to subnormal visual functioning;
3. a visual disability is more easily observed than is a learning disability;
4. atypical learning patterns can easily be overlooked;
5. physiological nature of low vision may be more readily acceptable than the more obscure label of a learning disability and, therefore, a more acceptable explanation for low grades or failure in school.

With regards to students having more than one disability in our school system, Siti Zahrah (2004) provides the combination of disabilities (see Table 1) that children with additional disabilities who are in the special schools may have.

Table 1: Type of combination disabilities in special schools.

Type Of Sensory Disability	Additional Disabilities
Visual impairment	Hearing impairment Learning disabilities Physical disability Other disabilities/disorders
Hearing impairment	Visual impairment Learning disabilities Physical disability Other disabilities/disorders

(Siti Zahrah, 2004)

The existence of more than one disability may results in children with additional disabilities having difficulty to access to the national curriculum used in either the special schools or the integration programs. In addition, the additional disabilities may contribute to behavioral problems which is caused by differences in the learning patterns. As described by Erin (1996), the uniqueness of each child with additional disabilities may result to differences in responses by those interacting with them. In many ways, the different temperaments and set of experiences that these children have making it almost possible to predict how much they learn. Therefore, in the school setting, most teachers modify the existing curriculum to accommodate the different learning patterns. The following section provides a general description of students with additional disabilities.

2. Multiple disabilities: A general description

A person with additional disabilities or multiple disabilities refers to someone who have two or more disabilities. Similarly, Raynolds and Fletches – Janzen (2000) describe persons with “multiple handicapping conditions are persons with two or more disabilities that result in handicaps within functional living experiences”. They may have concomitant impairments like mental retardation and blindness that requires special education program that could accommodate for the different disabilities they are having. The combination of various disabilities may include hearing impairments, visual impairments, mental retardation, learning disabilities, speech, physical impairments and many more. In addition, behavior and social problems may also be evident alongside the multiple disabilities that one is experiencing. Batshaw (2002) reports that “the incidence of blindness in children with multiple disabilities is more than two-hundred times that found in the general population; one-third of children with partial sight and two-thirds of children with blindness have other developmental disabilities”.

Although there are differences in characteristics of persons with multiple disabilities due to the different combination of disabilities and the severity of these disabilities, there are common characteristics which these persons may exhibit. Shukla and Kamal Mishra (2005) describe such characteristics include having:

- limited speech or communication;
- difficulty in basic physical mobility;
- tendency to forget skills through disuse;
- trouble generalizing skills from one situation to another; and/or
- a need for support in major life activities (e.g., domestic, leisure, community use, vocational).

3. Characteristics of student with visual impairments and other disabilities

In many cases, student has other disabilities along with visual impairment or multiple disabilities may have sensory, neurological and/or psychological problems. Rogow (2005) explains that the “multiple effects of combined visual and movement impairments impose many obstacles on a child s ability to explore and interact with the social and physical environment”.

Although the effects of multiple disabilities vary, the following characteristics may be more common when a student has a visual impairment along with other disabilities (Erin 2000):

1. Self-Focus. Students may focus on themselves, relying on body play, voice sounds, and repetitive movements for entertainment because they may be unable to see or remember people or objects of interest.
2. Emphasis on routine. Students may rely on repetition and routines for learning and comfort because of limitation in memory and vision. They may dislike unfamiliar situations and may not be interested in exploring new toys or materials because new objects are not predictable.
3. Responses to sensory experiences. Many of students who have neurological impairments and cannot see what is around them have unusual reactions to things they hear, see, touch, taste, or smell. They may withdraw from these experiences and appear defensive.

4. Limited incentive to move. Because the combination of a visual impairment and impairments in memory and reasoning may result in difficulty understanding space and the environment, students may prefer to remain in one place, rather than move around and explore.

4. Causes of visual impairment and other disabilities

The causes of visual disabilities are numerous and varied. They may be the result of syndromes, inherited eye conditions, pre-natal or post natal factors. A visual impairment may be present at birth, or it may develop during infancy or childhood. Some visual impairments get worse over time, some stay about the same, and few may even get better. There are many ways that vision can be impaired, one or more parts of the visual system may be damaged or may malfunction. In general, visual impairments are due to one of three broad causes (Stiles & Knox, 1996):

- structural impairment, or damage to one or more parts of the eye;
- refractive errors, or an inability of the eye to sharply focus images on the back of retina; or
- cortical visual impairments, which are due to damage to the part of the brain that interprets visual information.

Any of the visual conditions can occur with or without additional disabilities. Several visual conditions, however, almost always occur with another disability. Such conditions are:

4.1 Cortical Visual Impairment

A high proportion of children with cortical vision impairment also have additional disabilities with varying degrees of severity which, interact with each other (Sacks, 1998). The following conditions are frequently associated with cortical vision impairment:

1. cerebral palsy
2. intellectual disability
3. hydrocephalus
4. microcephaly (Hughes, 1995).

According to Moore (1995), infants and children with cortical vision impairment are delayed to a greater or lesser degree in reaching developmental milestones and in all sensory-motor activities and social development. Direct intervention and stimulation at an early age and support for caregivers is essential particularly in the early years. Moore reports that 70% of children who have cortical vision impairment or who are blind have some degree of intellectual disability and/or other disabilities.

4.2 Optic Nerve Atrophy and Optic Nerve Hypoplasia

These conditions affect the optic nerve, the bundle of fibers that transmits signal from the retina to the brain. In optic nerve atrophy, the optic nerve has been damaged in some way; in optic nerve hypoplasia the nerve has not developed. This may mean that the child may have some vision or may be blind, depending on how much of the optic is intact. The child also may have other disabilities such a cerebral palsy or growth problems, since the optic nerve is located close to the pituitary gland.

4.3 Usher's Syndrome

Usher's Syndrome is a genetic problem which accounts for about 50% of all people diagnosed as deafblind; usable vision, hearing, or both (Batshaw, 2002). The first symptom of Usher's Syndrome to be diagnosed is usually a problem with hearing.

5. Educational implications of children visual impairment and other disabilities

Rogow (2005) stresses on the increasing recognition of the education of children with visual impairments combined with other disabilities as one of the most compelling and challenging aspects of special education. In order to provide educational opportunities for these children, a number of measures can be taken into consideration. These include:

- having appropriate policy for including children with multiple disabilities in either special schools (for the mono disability) and in the mainstream schools.
- developing effective educational programs and teaching strategies specifically for children with vision impairment and other disabilities.
- including a variety of components with functional objectives into the educational programs to enable for increased skills and independence in dealing with the daily routine of the children's life.
- allowing opportunities for integration to take place effectively. This would be of benefit to both the children with no known disabilities and those with additional disabilities. Examples of such benefits are opportunities to develop their social skills and positive attitude change.
- increasing teachers skills and knowledge on multiple disabilities. In most cases, special education teachers are trained to teach a single category of disability which creates limited knowledge and skills to handle children with multiple disabilities.
- providing suitable and disable friendly infrastructure in schools to ensure children with multiple disabilities can be accommodated in these schools.

5. Conclusion

The possibilities of a person who is visually impaired having more than one disability may be due to the different factors including pre and post natal factors, inherited eye conditions and factors resulted to syndromes. Such complexities of human growth and development poses new challenges for the educational authorities like the Ministry of Education to provide appropriate human resource (in this case, teachers and teacher aides), support system and adequate teacher training. There is a call to all sectors involved to ensure maximum cooperation and collaborative efforts to take place effectively in order to provide meaningful educational opportunities to children with multiple disabilities.

These students are placed in either the special schools or in the integration programs are those who are partially sighted and totally blind. In the section that follows, this paper will briefly discuss the special education program in Malaysia that caters for students who have visual impairment. This is followed by the discussions on multiple disabilities among people who are visually impaired and causes for such disabilities. Lastly, the implication of these multiple disabilities on the education of these students will be highlighted.

References

- Batshaw. (2002) *Children with Disabilities*. Baltimore: Paul H. Brookes Publishing Company.
- Erin, J. N. (1996) Functional vision assessment and instruction of children and youths with multiple disabilities. In A. L. Corn & A. J. Koenig (eds.) *Foundations of Low Vision: Clinical and Functional Perspectives*. New York: American Foundation for the Blind.
- Erin, J. N., & Koenig, J. A. (1997) The Student With A Visual Disability and A Learning Disability. *Journal of Learning Disabilities*. 30: 309-320.
- Groeneweld, M., Jan, J. E., & Leader, P. (1990) Observations On The Habilitation Of Children With Cortical Visual Impairment. *Journal of Visual Impairment and Blindness*. 84(1): 11-15.

- Hughes, S. (1995). Cortical Visual Impairment: A Functional Analysis. Paper presented at the conference of the Australian and New Zealand Association of the Visually Handicapped, Perth.
- Kementerian Pelajaran Malaysia. (2007) *Maklumat Pendidikan Khas*. Kuala Lumpur: Jabatan Pendidikan Khas.
- Layton C. A. & Lock R. H. (2001). Determining Learning Disabilities in Students with Low Vision. *Journal of Visual Impairment & Blindness*. 95 (5): 288-99.
- Moore, J.C. (1995). The Visual System. Paper presented at the Conference of the Australian and New Zealand Association of the Visually Handicapped, Perth.
- Raynolds, C.R. and Fletches – Janzen (2000). *Encyclopedia of Special Education* (Vol. 2). New York: John Wiley and Sons.
- Rogow, S. (2005). A Developmental Model Of Disabilities. *The International Journal of Special Education*. 20 (2): 132-135.
- Sacks, S. Z. (1998). Educating Students Who Have Visual Impairments With Other Disabilities. In S.Z. Sacks & R.K Silberman (eds.) *Educating Students Who Have Visual Impairments With Other Disabilities*. Baltimore: Paul H. Brooks.
- Shukla, N. & Kamal Mishra, S. (2005). Researches in the Field of Education and Welfare of Children with Multiple Disabilities in India. *Journal of Special Education in the Asia Pacific*. 1: 3-13.
- Siti Zaharah Mat Akib (2004). Country Report (Malaysia). Paper presented at the Conference of the 24th Asia-Pacific International Seminar on Special Education. 11 – 16th Okt. Kanogawa, Japan.
- Stiles, S. & Knox, R. (1996). Medical Issues, treatment, and Professional. In M. Cay Holbrook (eds.). *Children With Visual Impairment: A Parents' Guide*. USA: Woobine House.
- Webster, A. & Roe. J (1998). Children with visual impairments: Social interaction, language and learning. New York: Routledge.