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Chapter 1

Introduction

The mainstreaming of the blind & visually impaired in our country Belize into the regular school setting commenced in 1985. It was a pilot project that was supported by Belize Council for the Visually Impaired [BCVI], the Ministry of Education and Stella Maris School. Children with low vision who were casually integrated were assessed and programmes developed to minimize the effects of the low vision. Today it is judged to be one of the most successful and more structured programme of integration of disabled children in Belize as well the Caribbean.

Because it is a generally embraced principle that these children's educational placement should be in a regular school rather than a special school the ministry of education has fully accepted the programme. In collaboration with the itinerant teachers the Special Education Unit and BCVI there are 32 children who are blind or visually impaired integrated in school today throughout the country [BCVI] quarterly report. Integration of children with other disabilities such an Learning disability; Physically challenged children and other disabilities is ongoing especially after the child's educational placement in the special centres is reviewed.

Statement of the problem

The concept that children with special needs be placed in the least restrictive environment has been advocated from the establishment of the Special Education Unit (SEU) in 1991. Whenever possible the SEU attempts to mainstrem children with special needs and keep them in the regular classroom. To help classrooms teachers understand these children's problems and ways to remediate them, The SEU provides itinerant teachers to support regular classroom teachers in specific areas of the curriculum to assist the regular

classroom teacher. These teachers perform their tasks by visiting at regular intervals and as such allow the child to spend most of their time in the regular school. Workshops to sensitize teachers on issues related to blindness & visual impairment and the effects in the primary schools are organized periodically. It is the researchers intention to find out from teachers who have actually experienced or seen a child integrated in their school what they perceive about the programme.

PURPOSE

The purpose of the study will be primarily to document attitude of teachers who are teaching in either schools who have blind and visually impaired children. The mainstreaming of the blind & visually impaired children have been going on for quite some time and there has not been a formal documented and published study so that teachers will be able to use, to determine whether they are in the right track or not. By conducting this study their will be available information that teachers will be able to use which will assist them in coping with these children rather than getting frustrated . The study will also prepare other teachers who are not necessarily involved in teaching these children ,but who are in the same staff to prepare and understand these children.

SIGNIFICANCE

The researcher is convinced that the study will be of significance to the following persons and organizations:

1. Primarily to the schools who are directly affected as they will get first hand information on how their teachers feel.

2. To the Special education Unit as it will assist them in modifying the existing practices being implemented in the programme.

3. To the Ministry of Education as the information obtained will assist them in formulating policies and programmes for Cayo district.

4. To Belize Council for the visually impaired who may read the study and strengthen support where necessary.

5. To the parents of these children who will know what the teachers feel about their children and what support they can give.

Chapter 2

Literature Review

Vision Impairment

Vision is taken largely for granted by those of us with this sensory system intact. It is difficult to realize all of the ways that serious visual impairment affects the various aspects of a person's life. This Literature review provides information about individuals with visual impairments, including current definitions causes; the various types of impairment; the anatomical structures affected; problems in adapting to visual disabilities and environmental, strategies that facilitate learning for those who are visually impaired.

History

The education of children with visual impairments began in Paris in 1784 when Valentin Hauy, an educator and philanthropist, created the first school for persons who were blind. Hauy's goal was to create a reading system for persons with visual impairment. His student, Louis Braille, actually accomplished this goal by developing and refining the braille code (a series of raised dots), which is still used today by persons who are blind.

Howe established the first residential school for persons who were blind in the United States in 1829, which continues to operate today. The New England Asylum for the Blind in Boston (known today as Perkins School for the Blind) provides lifelong support for its residents. Two other residential schools, the New York Institute of the Blind and the Pennsylvania Institution for the Instruction of the Blind, began educating children who were blind in the 1830's. These programs provided instruction to all

individuals with visual impairments. No distinctions were made with respect to visual functioning.. During the middle of the 19th century, all persons with visual disabilities were considered tactile learners. It was not until 1879 and the inception of the American Printing House for the Blink (APH) that books and materials appeared in both braille and large print.

Education of children who were blind and visually impaired in public school programs began in the early1900's's. Frank Hall and John Curtis established the first day school program for children with visual impairments in Chicago. In a moving presentation Hall stated: I think the method of segregating the blink, keeping them from the class with whom they will live after they leave school, cutting them off from society, is the greatest mistake that was ever made. The public school is the place to educate a blind boy, associating him with the people with whom he will associate when he leaves school (Irwin 1955 p 149)
This was a radical perspective well into the fifties, when most disability groups and many professional were working to establish and fund segregated educational services for those with disabilities. Only approximately 15% of school-age children with visual impairments were enrolled in public school programs throughout the first half of the 20th century.

Retinopathy of prematurity (ROP) (oxygen, necessary in many instances to preserve life of the infant triggers changes in retinal blood vessels) in the late forties and early fifties strongly influenced the direction of education of students with visual impairments. Almost 10 000 premature infants were affected by ROP. Many were left with little or no vision.

Some decades later, in the sixties and early seventies, a devastating outbreak of the rubella virus caused serious visual impairments along with multiple impairments in almost 30 000 children. This also influenced the direction of service for children with visual impairment.

Today, educational program for students who are blind and visually impaired have grown to include services for infants and preschoolers, as well as students in transition from school to adult life. However, the extent and quality of services provided to students with visual impairments continue to be challenged by changing philosophical perspectives among leaders in special education and by fiscal constraints. Future trends for the education of students with visual impairments must embrace the advancements of technology and innovative curricula while ensuring a strong educational program to assist each student in future life endeavors.

Definitions

Many people today think that all persons who are blind live in a world of total darkness (Schulz, 1980). In reality, only a small percentage (approximately 15%) of people who are labeled as legally blind or visually impaired are completely without vision (Bailey & Hall, 1990; O'Donnell & Livingstone, 1991); the vast majority of people have some degree of usable vision. The terms blindness and visual impairment have been defined in a number of ways by different disciplines to establish eligibility for special services and funding support.

There are basically three types of definitions; medical, legal and rehabilitative, and educational.

Medical definitions: Eye care specialists (ophthalmologists and optometrists) evaluate an individual's visual abilities through ophthalmic examination. Generally two criteria are used in determining quality of vision: visual acuity and visual field. *Visual Acuity* refers to the clarity with which a person can see. It is most often measured using the Snellen chart. The chart consists of eight rows of letters (or E's for every young children or those who are illiterate) of varying size, each corresponding to the size of a standard print sample at distances from 15 feet to 200 feet. Acuity is measured as the person sits 20 feet from the chart and reads aloud the smallest line o of print he or she can visually distinguish (or states which way the "legs" of the E's are facing on the smallest line that can be read). Normal acuity is 20/20. The first number refers to the distance at which the person can see a specified line on an eye chart. The second number refers to the distance at which a person with normal vision could stand and still see the same line. A person with 20/200 vision, therefore, would have to stand no more than 20 feet from the chart to see the same line than a normal sighted person could see from a distance of 200 feet.

A second method of measuring acuity that is becoming more common is contrast sensitivity. A significant factor in how "clearly" a person can see something is the contrast of an object with its background rather than the size of the object alone. As an example, it is easier to see a small piece of white chalk against a black background, than a dark telephone pole against a dark brown background. Contrast sensitivity is

measured by displaying a variety of patterns consisting of altering black and white bands of varying widths. The narrower the widths become, the more the pattern takes on the appearance of a solid gray color rather than black and white bands. The point at which a person is no longer able to distinguish between the black and white bands identifies the amount of contrast a person needs to see an object. The lower the requirement for contrast, the higher a person's acuity.

Visual field refers to the area seen by the at a given moment. Using peripheral, or side, vision, a person can normally see an area at about 180 degrees from left to right while keeping his or her eyes straight ahead. There are a number of tests for visual field such as perimetry in which a person looks ahead at a target while the examiner flashes small lights in varying spots in the peripheral field. By determining to which lights a person responds or does no respond, the ophthalmologist or optometrist is able to draw a "map" of the person's visual field, showing where the person may or may not see.

The term "legal blindness" is used by governmental and rehabilitation agencies to determine whether or not a person qualifies for legal benefits such as tax advantages and services (e.g., instruction in nonvisual methods of travel and daily life skills, assistance in job training and in obtaining employment).

A person with visual acuity of 20/200 in the better eye after correction is considered *legally blind*. Legal blindness may also mean that a person, regardless of visual

acuity, can see no more than an angular distance of 20 degrees out of 180 degrees without shifting his or her head or eyes. This means that the person would see only about 1/9 of the area seen by a person who does not have visual impairment. A person with 180 degrees of field (normal) can see all of the items in this scene. A person with 20 degrees of field can see only the items that lie within the shaded area in the chart..

Visual impairment signifies a visual field loss that leaves no more than 20 degrees of visual field or a visual acuity in the better eye after correction ranging from 20/70 total blindness.

Low vision refers to a visual impairment that is severe enough to impact the performance of learning and everyday tasks, but which still allows some useful visual functioning.

A person is considered eligible for services from state departments of rehabilitation of his or her vision in the better eye following correction is less than 20/60 or if the field of vision is no greater than 20 degrees.

Educational definitions of visual impairments rely on more functional criteria, with visual handicaps as those who have "a visual impairment which even with correction, adversely affects ... educational performance." Educationally, children with visual impairments are considered "functionally blind", "low vision", or "visually limited", depending on their ability to use their vision to learn.

A child is considered blind if he or she can only learn through tactile or auditory channels (Caton, 1981). A child who is blind might use braille as a reading medium, as well as a computer with voice output and/or auditory tapes as part of the educational program. A child is considered low vision if he or she is severely visually impaired after correction but has increased visual functioning through to use of optical aids, non-optical aids, and environmental modification and/or techniques (Corn, 1980). A child who has low vision can use his or her residual vision functionally for learning and may use it as a primary means of acquiring information. The child may combine the use of remaining vision with tactile and auditory methods , depending on the amount of usable vision. A child is considered visually limited if his or her use of vision is limited under average circumstances, but he or she is considered sighted for educational purposes and in all other situations (Barraga, 1983). A child who is visually limited may benefit from adaptations such as special lighting, corrective lenses, or modified teaching materials.

Visual disability is considered a low-incidence disability; it affects only approximately 0.1% of school-age children. Accurate data on numbers and demographic characteristics of children with visual impairments are difficult to obtain because the majority of children with visual impairments have multiple handicaps (Kirchner, 1990). Many are enrolled in programs for students who have intellectual impairments, physical disabilities, or multiple disabilities and are reported by their primary diagnosis. Probably the most accurate statistics on the number of children who are visually impaired are those compiled annually by the American Printing House of the blind

(APH). Each year APH compiles a registry of legally blind children being served in school programs. In 1992 it reported more than 42 431 children enrolled in these programs.

There has been a steady increase in the number of children who are visually impaired since the late seventies (Kirchrier, 1990) Data compiled by APH indicate a 9% increase in children who are visually impaired between 1987 and 1991. The number of children in infant programs increased by 25% and the number in preschool programs increased by 41% (APH, 1987; APH 1992). This rise is due in part to the improved ability of physicians to save premature infants and to sustain lives of those born with severe medical programs. It is perhaps also due in part to better and earlier identification of children with impairments.

Structure and Function and the Visual System

The visual system consists of the eyeball and its inner parts, the muscles that surround it, and the nervous system connections linking the eyeball and the occipital lobe, or vision center, in the brain. The eyeball can be likened to a camera, both in its anatomy and In many of its functions. Light rays pass through the cornea (a transparent cover in front of the iris) which performs a major role in bending (refracting) the rays so that they will be focused clearly on the retina and provide optimal vision. The rays then pass through a chamber filled with a water substance known as the aqueous humor. From there they pass through the pupil, which is an opening surrounded by a structure called the iris. The iris not only gives eyes their

brown, blue, green or hazel color, but also serves an important function in focusing light rays and in regulating the amount of light entering the eye. The work of the iris in light regulation can be compared to the function of the F-stop on a camera.

Limitations of blindness

Berthold Lowenfeld, a noted educator of blind and visually handicapped pupils, presents a moderate position. He says that blindness "imposes three basic limitations on the individual:

1. In the range and variety of experiences.
2. In the ability to get about.
3. In the control of the environment and the self in relation to it

These three restrictions Lowenfeld views as "the objective effects of blindness". The way in which an individual behaves or learns to adjust to the impairments is dependent on several subjective variables: personality, additional handicaps, and factors relating to the visual impairment including degree of vision, cause of the impairment, age and type of onset, and present condition. This recognition of the critical nature of the impairment, with accompanying options for adjusting to its seem to reconcile the seemingly opposing views of the two extremes.

Minority status and discrimination are a reality for the handicapped, but a reality that requires concerted efforts on the part of all persons to eliminate. With equal opportunities to develop their capacities, society and visually handicapped persons may come to view their impairment more as a nuisance than a disaster.

Blind persons, like most people, tend to absorb the attitudes of those about them regarding their value and self-worth. They live up to the expectation and behaviour that significant others ascribe to them. When negative attitudes and expectations prevail, the visually handicapped person will become socialized into a role that is consistent with those attitudes and expectations. When significant persons in the environment view visually handicapped people as being inferior and having a low status, they begin to think of themselves in a similar manner, namely, dependent and abnormal. The goal of education should be directed toward fostering positive self-esteem and independence.

Beliefs About Blind People

Society assigns a deviant role to its handicapped population and bases expectations of behavior it deems appropriate for handicapped persons on beliefs or myths, generalizations, and attitudes about the particular condition. Their are numerous beliefs about persons who are blind or visually handicapped, such as they are musical; they are dependent and helpless; they are beggars.

Some of these beliefs originate in our cultural heritage; others are related to limited experience with persons who have usual impairments which tends to emphasize the unknown and sometimes mysterious aspects of the impairment. None of these nor other similar beliefs describe accurately the population known as blind and visually handicapped. Some are musical but many are not. Some are dependent but most are independent, earn a living at some productive employment, and are leaders in their

communities. Some are beggars but so are some non-handicapped persons. Persons with visual impairments are a diverse group in society. They are thin and fat; tall and short; fun-loving and grouchy; they have all the characteristics found in any group of people. They possess no characteristics specific to themselves as blind persons, and they show no typical reaction to being blind. Like all persons, they are product of their own unique heredity and environment and are individuals. Thus, it is not possible to generalize about any common characteristics of persons with visual impairments. Attitudes toward the handicapped, including those with visual handicaps tend to be negative and to focus on what the person cannot do rather than what he can do. Coping with negative attitudes is frequently a greater challenge to the blind person that coping with the impairment. Teachers of visually handicapped pupils must help their students learn to cope with negative attitudes and must assist others, such as teachers, other schools personnel, students, parents, the community, to develop positive attitudes towards persons with visual impairments. Attitude change is a complex process and involves assisting persons to change their own attitudes. This process must include providing information to counteract myths, generalizations, and other false beliefs as well as active participation in activities, such a role playing, counter attitudinal advocacy, and value confrontations designed to contribute to behavior change (Watts, 1984).

Paradoxically, unrealistically positive attitudes may also be an important consideration (Kirtley, 1975). In ancient times blind persons were sometimes viewed and revered as prophets, as interpreters of dreams, and as wise sages (Kirtley, 1975). Today many

persons believe that the lack of vision endows an individual with supernatural abilities, such as in hearing and touch, or in some artistic ability, usually music. There is, however, no evidence that blind persons have greater abilities in these areas (Hayes, 1941). These attitudes too may work to the disadvantage of persons with a visual impairment when they cannot meet the unrealistic expectations that are assigned to them by some persons.

Teaching Situations

In looking at specific roles and functions of teachers of the visually handicapped children and critical factors in the preparation of these teachers, it has long been recognize that professional roles differ according to the kind of educational setting in which the teacher functions and the amount of support provided. In Belize, for example, the trend is to move away from direct teaching to case management in an itinerant or teacher consultant programme (Cowo, 1996 undocumented). It is this very diverse trend that makes the roles and demands of the teacher more unique and professional.

Chapter 3

RESEARCH PROCEDURE

The survey was planned as early as mid November, 1996. The principal objective was to gather data through questionnaires from teachers in Camalote and Santa Familia Schools to determine the existing status of the mainstreaming program in the Cayo district.

Consideration of some necessary things, such as identifying the number of teachers that will participate was done in late November. This was because only two schools were identified it was felt that the project was not only worthwhile, but necessary, thus the researcher proceeded.

The population which was the object of the investigation consisted of two primary schools in Cayo District (see Appendix 2). This covered a sample of approximately thirty. The entire population of teachers who had previous experience, either by seeing the children, through workshops or actually teaching the child. The teachers numbered eighteen and were labeled randomly, A, B, C, ... R, for analysis purpose.

Data Collection

The following strategies will be employed in collecting data:

a. Questionnaire for teachers

b. Observations in the schools

The questionnaire devised for the teachers comprises of thirty statements to which

teachers will be asked to respond. Using a rating scale of 1, 2, 3 and 4 they will be asked to tick the appropriate response.

The key is - 1. Strongly disagree

2. Disagree

3. Agree

4. Strongly agree

The thirty-three items are further sub divided into three sections:

Statements 1 - 13 are statements dealing mostly with the educational aspect of the study such as what the teachers in the regular classroom feel about the performance of the impaired children who are mainstreamed and what subjects they do quite well etc.

Statements 14 - 23 deal with the socialization aspect of the mainstreaming program. Information as to whether the interviewees think that these children are confident and independent, as well as their participatory role in school activities (see appendix).

These statements will be drafted and submitted to the supervisor for approval. They will next be printed and issued. Teachers will be asked to be as objective as possible in filling out the questionnaire when sought to elicit information such as the name of school, the years of teaching experience and level of training.

Copies of the questionnaire will be distributed by hand to the various teachers in the schools. A two week interval will be allowed then they will be collected by the investigator. They will then be examined and data recorded and charted. This chart

provides the backbone for the data analysis.

The investigator will visit each school three times to observe children working in the mainstreamed setting. Outstanding observations will be recorded in a booklet as well as information on actual work of children. Santa Familia School will be observed weekly. The other school will be observed 3 times per month.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

1. Blind and Visually Impaired Children encounter great difficulties and inconveniences in performing their academic school work.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive/ Negative
Points	1	2	3	4	positive
No. Of Responses	2	11	3	2	
Total points	2	22	9	8	
Percentage	11.1%	61.1%	16.7%	11.1%	

The table above represents the responses given by the eighteen participants in the survey. As can be clearly noted the highest number of participants (11) responded that they disagree with the statement. This represents 61.1% of the participants. It can then be interpreted that the response to this item was positive and optimistic and it shows how determined teachers are to give the blind and visually impaired children opportunities in achieving their maximum level of education. Subjects K and L responded that they strongly agreed. It may be noted that this response came from the same school. It represents 11.1% , the same percentage for the number of participants who responded that they strongly agreed to the statement. Overall it was a very encouraging response.

2. As a teacher in the regular primary school I can comply with the necessary needs of blind and visually impaired children without obtaining any support.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	2	9	7	0	
Total points	2	18	21	0	
Percentage	11.1%	50%	38.9%	0%	

The table above give details of the responses made to the statement. No one strongly agreed to the statement. All participants responded with 9 subjects answering that they disagree. This represents 50% of the entire subjects., It is startling to the researcher that 7 participants agreed that they can cope without support as this represents 38.9%. Two participants strongly disagreed. If added together 61.1% of the participants responded that they do need support to teach these children.

3. Instructing the blind and visually impaired children requires one to one approach and it takes plenty of the teachers time.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	0	1	13	4	
Total points	0	2	39	16	
Percentage	0%	5.6%	72.2%	22.2%	

For this statement the majority (13) of the participants agreed that it requires a one to one approach which is time consuming. This represents 72.2%. Four participants strongly agreed, representing 22.2%. This added together would give 94.4% which definitely needs to be taken into consideration by the Ministry of Education. No one strongly agreed, but subject k was the only one to disagree.

4. As a teacher in the regular classroom I can manage blind and visually impaired children because I am prepared to deal with them.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	5	13	0	0	
Total	5	26	0	0	
Percentage	27.8%	72.2%	0%	0%	

Teaching blind and visually impaired children requires a lot of skills that need to be passed to the child. The results of this statement strongly supports this view as the entire number of participants inclined to this view. The majority, representing 13 respondents disagreed that they are prepared to manage the children. This represents a mark of 72.2 %. The remaining 5 participants strongly disagreed with the statement.

The table shows zero response to agree and strongly agree.

5. As a staff member in the regular primary school who have blind and visually impaired children, I can teach them because I get the necessary support from professionals and other teachers.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	3	12	3	
Total	0	6	36	12	
Percentage	0%	16.7%	66.7%	16.7%	

The table above shows the responses for statement number 5. All participants responded to the statement with 12 agreeing that they do get the necessary support. This represents 66.7% of the participants. Whilst no one strongly disagreed, 3 participants disagreed that they do get the necessary support, the same number strongly agreeing to the statement. This is important for the agencies responsible as it signals to them what supporting mechanisms need to be strengthened.

6.Children who are blind and visually impaired can learn the Language Arts subject in school very easily.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive

No. Of Responses	0	2	15	1	
Total points	0	4	45	4	
Percentage	0%	11.1%	83.3%	5.6%	

The highest score obtained on a particular response so far is 83.3%, a score marked by 15 participants who favorably responded to the statement that blind and visually impaired children can do the language arts subject with minimum difficulty. Subjects I and O disagreed to the statement. Subject F who has experience in teaching blind children strongly agreed.

7. Children who are blind and visually impaired can perform mathematical operations correctly without any serious challenge.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	3	15	0	0	
Total points	3	30	0	0	
Percentage	16.7%	83.3%	0%	0%	

The response given to this item is the opposite to the previous one. A common characteristic though is that there was a high response concentrated on one column. In this instance a high 83.3% responded that they disagree that children who are blind can perform mathematical operations without any problems. This again supports what Lowenfeld is saying in the Literature review that one of the limitations that blind children face is in concept formation. Further supporting this is 3 subjects who strongly disagreed. No one agreed or strongly agreed.

8. The Blind and visually impaired children in our school are fully prepared to cope in an integrated setting.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	1	14	3	
Total points	0	2	42	12	
Percentage	0%	5.6%	77.8%	16.7%	

The table above demonstrates how participants responded to the statement that the blind and low vision children in their schools can cope very well in the integrated setting.. 14 participants agreed, thus representing 77.8%, whilst 16.7% of the participants strongly agreed. Added together it represents 94.5% a very interesting figure for the organizations involved in the integration of the blind and visually impaired. Only subject O disagreed with the statement.

9. As a regular classroom teacher I am supplied with relevant materials and equipment to work effectively with blind and visually impaired children.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	8	9	1	0	
Total points	8	18	3	0	
Percentage	44.4%	50%	5.6%	0%	

Blind and visually impaired children should have a variety of materials such as Braille

machines, abacus, talking calculators etc. The responses for this statement were scattered as can be seen in the table above. The majority disagreed representing 50% of the participants in the study. What is alarming though is that 44.4% strongly disagreed. If computed it sums up to 94.4% of participants responding negatively to the statement. Only subject O responded that he agreed. No one strongly agreed.

10.Teachers in our staff attend on going training through workshops organized by Ministry of Education for teachers of blind and visually impaired children.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	4	11	3	0	
Total points	4	22	9	0	
Percentage	22.2%	61.1%	16.7	0%	

Their are new innovations and inventions for blind children. Teachers must keep abreast with all the recent developments taking place. This can be done through workshops. This however is not happening as reflected in the response attained. Added together we can say that 83.3% which represents 15 participants said that

workshops are not organized. Subjects G,H and O agreed all coming from the same school.

11. In my school Blind and visually impaired children demonstrate skills like any "normal" child.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	1	3	10	4	
Total points	1	6	30	16	
Percentage	5.6%	16.7%	55.6%	22.2%	

There is considerable amount of debate that blindness should be treated as a characteristic rather than a disability. This argument arises from the fact that some children who are blind demonstrate extraordinary skills. The table shows that this thought is true as 10 participants representing 55.6% responded that they do agree, and 4 subjects said they strongly agreed. Only subject Q strongly disagreed. Subjects D, F and R disagreed.

12. In my school I feel very uncomfortable and tense in teaching blind and visually impaired children.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive

No. Of Responses	2	13	2	1	
Total points	2	26	6	4	
Percentage	11.1%	72.2%	11.1%	5.6%	

Each child is an individual an have it's rights to basic education. Such is the blind child. The table above compliments the statement as the response given shows that 72.2% of the respondents disagreed that they feel uncomfortable in teaching thee children. Two subject followed the path taken by the majority but went further as they strongly disagreed. Only three subjects inclined negatively by responding to agree (2)and strongly disagree (1)

13. I genuinely enjoy and appreciate teaching blind and visually impaired children in my school.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	2	5	7	2	
Total points	2	10	27	8	
Percentage	11.1%	27.8%	38.9%	11.1%	

Teaching blind and visually impaired children can be fun. The response to this statement however, were scattered as can be clearly seen on the table above. The

response that got the highest was "agree" as 7 participants marked in this column. This represents 38.9%. On both extremes the same number of participants (2) responded the same. Five subjects responded that they disagree. This figure definitely needs to be considered as having fun is a quality of an effective teacher.

14. In my school the blind and visually impaired child seem to be normally accepted by his peers and teachers.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	0	14	4	
Total points	0	0	42	16	
Percentage	0%	0%	77.8%	22.2%	

All participants responded to the statement as can be seen on the table above. A positive response was obtained as no one strongly disagreed or disagreed. The largest number of participants (14) agreed representing 77.8% and 22.2% strongly agreed. The organizations involved should study it more clearly to determine the factors that contribute to this acceptance so as to implement it in other parts of the country.

15. The blind and visually impaired children integrated in my school are independent in many areas such as mobility and daily living skills.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	1	3	11	3	
Total	1	6	33	12	
Percentage	5.6%	16.7%	61.1%	16.7%	

A blind and visually impaired child should do the plus curriculum before integrated in school. This assists them to be as independent as possible. The participants acknowledged that the children in their schools have been through this training as 78.8% responded positively. This was shared with 11 participants agreeing and 3 strongly agreeing that children are independent. Subject A strongly disagreed and 3 subjects disagreed.

16.In my school the blind and visually impaired children always demonstrates a level of confidence in school.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	1	2	11	4	
Total points	1	4	33	16	
Percentage	5.6%	11.1%	61.1%	22.2%	

The table above shows that 11 of the participants responded positively to the statement by agreeing. This represents 61.1% . This was further complimented by 4 participants who strongly agreed. Subjects N and F disagreed with the statement whilst only subject E strongly agreed. This again can be interpreted as a plus for the whole program of integration of the blind and visually impaired.

17. In my school blind and visually impaired children socially interacts and participates during classes.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	7	11	0	
Total points	0	14	33	0	
Percentage	0%	38.9%	61.1%	0%	

The table shows that on both extremes no one responded. Of the 18 respondents 11 of them said that the agree that the blind and visually impaired child is socially interacting with his peers. It is interesting also that 38.9% or 7 participants disagreed. This figure is alarming and all variables involved should be studied to determine how it can be minimized.

18.In my school the blind and visually impaired child takes an active role in group discussions and activities.

20. The blind and visually impaired children have assistance from his peers in school who aid him in many ways.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	2	11	5	
Total points	0	4	33	20	
Percentage	0%	11.1%	61.1%	27.8%	

For the blind child to cope in school easier his friends and peers can assist him in reading and recording materials. The classroom teacher and the itinerant can organize such setting in school. The results for integration in schools studied showed that this mechanism is in place as 11 participants agreed reflecting a majority of 61.1%. Supporting this was 27.8% who strongly agreed. Whilst no one strongly disagreed 2 subjects disagreed.

21. In my school the majority of the school children are astonished with the potentials of the blind and visually impaired and as a result they are highly motivated.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	2	5	6	5	
Total points	2	10	18	20	
Percentage	11.1%	27.8%	33.3%	27.8%	

The scores for this item were scattered but their was an inclination towards the agreeing side. Overall the highest score recorded was 33.3% which marked their score in the "agree" section as compared to 27.8% who strongly agreed. Added together this represents 61.1%. On the other extreme 27.8% disagreed and 11.15 strongly disagreed. There is definitely a need to improve these scores.

22.In my school blind and visually impaired children seem properly attired and hygienically clean most of the time.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	neutral
No. Of Responses	2	7	7	2	
Total points	2	14	21	8	
Percentage	11.1%	38.9%	38.9	11.1%	

Their was an equal response on both extremes as 2 subjects responded that they strongly disagreed as well as 2 subjects responding that they strongly agreed. Again they were evenly distributed in disagree and agree column as 38.9 % which is 7 respondents marked for these column. The itinerant teacher should look into the problem with the intention of increasing this number to a positive response.

23.In my home environment and school the blind and visually impaired children integrated in school are generally accepted by school administration and community.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	1	10	7	
Total points	0	2	30	28	
Percentage	0%	5.6%	55.6%	38.9%	

The table above shows that the participants responded positively to this statement as 94.5 % responded favorably. This was distributed with 55.6 % recording in the "agree" section and 38.9% on the "strongly agree" section. Only 1 subject disagreed to this statement.

24. The programme of integration of the blind and visually impaired children is supported fully by the Special Education Unit.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	2	15	1	0	
Total	2	30	3	0	
Percentage	11.1%	83.3%	5.6%	0%	

A child who is blind and is in regular school is not integrated if he does not get any support. The response to this statement was negatively addressed as a dramatic 83.3% disagreed to the statement, complimented with 11.1% who strongly disagreed. Together this represents 94.4 %. This definitely is alarming.

25. As a regular classroom teacher I am familiar with all material that are used to teach blind and visually impaired children.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	1	9	8	0	
Total points	1	18	24	0	
Percentage	5.6%	50%	44.4%	0%	

All participants responded to this statement. The highest response was 50% who said that they disagree with the statement. However a high score of 44.4% was recorded in the agree column. Only subject L strongly disagreed. The response is very alarming and needs addressing.

26.Because I have blind and visually impaired children in my school I am prepared to do a course in reading and writing braille so as to cope better with the work.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	1	13	4	
Total points	0	2	39	16	
Percentage	0%	5.6%	72.2%	22.2%	

Teachers definitely need to have skills to deal with children who have special educational needs in the classroom. For the blind child one such skill should be reading and writing Braille. It seems as though the participants showed a positive

inclination towards this statement as 72.2 % responded that they agree and was further complimented with 22.2% strongly agreeing. One subject disagreed. This is a indication that relevant organizations need to organize such training.

27. At school the local manager and school principal give full support to the programme of integrating blind and visually impaired children.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	0	11	7	
Total points	0	0	33	28	
Percentage	0%	0%	61.1%	38.9%	

For any program to be successful it must have the support of the principal and local manager. This is definitely happening in these schools as it is clearly reflected In the table above. Whilst no one demonstrated a negative inclination, the majority(11) representing 61.1% agreed and further commended with 38.9% who strongly agreed.

28. As a regular classroom teacher I am convinced that more workshops should be organized for teachers to discuss relevant issues.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	0	2	16	
Total	0	0	6	64	
Percentage	0%	0%	11.1	88.9%	

. No one showed a negative inclination.For the statement on number 28 all the

participants showed a positive inclination that there should be more workshop organized frequently. The highest concentration of responses was for strongly agree which received 88.9% of the total responses

29. The expertise and know how of the itinerant teacher from Special Education Unit is readily available to our school.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	8	10	0	0	
Total points	8	20	0	0	
Percentage	44.4%	55.6	0%	0%	

For this statement alarmingly no one showed a positive inclination towards it. All 18 participants inclined towards the negative with the highest score being recorded at the disagree column which had 55.6% responding to it. In the strongly disagreed column the scire was a high 44.4%. This definitely is alarming and the itinerant teacher should improve this figure to reflect positively.

30. The itinerant teacher visits to the schools to teach specific skills and consult with teachers is enough in my school.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	3	14	1	0	
Total	3	28	3	0	
Percentage	16.7%	77.8%	5.6%	0%	

Again the subject of support is vital. 77.8% of the participants responding to this statement disagreed. This definitely is a very negative result, and was further supported by 16.7% who strongly disagreed. This is very startling for the organizations responsible. Only one subject agreed.

31. I am convinced that the Ministry of Education including Policy makers support the programme of integration of the blind fully.

	strongly disagree	disagree	agree	strongly agree	positive/ negative
Points	1	2	3	4	negative
No. Of Responses	4	14	0	0	
Total points	4	28	0	0	
Percentage	22.2%	77.8	0%	0%	

This statement was negatively inclined as the entire participants answering were pessimistic about the statement. The highest score was disagree section where 77.8 % responded in this section. This was supported by 22.2 % strongly disagreeing.

32. Ministry of Education personnel and other organizations involved visit our school often to check on progress of blind and visually impaired children.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	negative
No. Of Responses	8	10	0	0	
Total	8	20	0	0	
Percentage	44.4%	55.6%	0%	0%	

It is very obvious that the personnel at the ministry do not check on the progress of the children. This was vividly recorded on the table above as 55.6% of the participants disagreed that the ministry do support as compared to 44.4% who strongly disagreed.

33.In my village parents are concern about the progress of their blind and visually impaired children and visits to the school are frequent.

	Strongly Disagree	Disagree	Agree	Strongly Agree	Positive Negative
Points	1	2	3	4	positive
No. Of Responses	0	3	15	0	
Total points	0	6	45	0	
Percentage	0%	16.7%	83.3%	0%	

For this statement the majority (15) agreed. This represents 83.3 %. Only 16.7 % disagreed. All participants responded to the question.

CHAPTER 5

Conclusion and Recommendations

Integration of the blind and visually impaired is a tangible reality in Belize today. As previously mentioned the whole idea of integration is defeated if there is no support available. During the data analysis there were outstanding points that were discovered that needs to be seriously addressed. The researcher will present it as recommendations:

1. That the entire program be reviewed immediately so as to assess the strengths and weakness of the children, teachers and all those involved.

2. That conferences be held with personnel from the ministry, the special education unit, Belize Council for the Visually Impaired so as to define each role and expectation.
3. Parents be encouraged to continue giving their support.
4. The organizations involved look at other research that has been conducted in order to learn and update on the present situation of the integration program
5. Periodic assessment on the program be carried out by the Ministry of education and all other supporting agencies.
6. Teacher training is a very important aspect and as such teachers should be trained in areas where the blindness will definitely have a limitation. One

such area is Mathematics.

7. That the itinerant teacher organizes sessions in Braille and Orientation and Mobility so as to give teachers mire training.

8. That parents be encourage to learn braille so as to support the child at home.

9. Materials that are necessary be readily available to the teachers

10. That the Special Education Unit gives more support so as to get maximum benefit of the child.

11. That copies of this findings be made available to relevant authorities

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