

**Issues Related to the Education of Learners
with Cerebral Palsy in Mainstream Private
Elementary Schools in Dubai**

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Dedications

To my husband and friend for life,

Thank you for inspiring and encouraging me to achieve my dreams.

To my most precious children,

Thank you for supporting and loving me when I was being unlovable.

And last but definitely not the least,

To my beloved parents,

Thank you for being my pillar of strength and always being there for me.

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Special thanks to my friends and parents who took care of my children, while I attended classes at the University. Finally, sincere thanks to my husband, Atul and my children, Akanksha and Aadit, for being with me all the way through.

I am Cerebral Palsy

*I make life difficult,
I tear families apart,
I do not have a cure,
I break some parents' hearts.*

*I force kids to go through therapy,
To endure a surgery or two,
So that they have a chance of walking,
Those strong enough to defeat me are few.*

*I force kids to sit on the sideline,
Of their brother's soccer game;
They can only dream of playing
Dreams and reality are not the same.*

*I affect the way they catch and throw,
The way they run and walk,
The way their muscles work,
The way they whisper and talk.*

*I own them like I own a slave,
their soul is surely mine,
They cannot break free of me,
until the time comes when they die.*

*I hold them captive day in day out,
And make them hate me so.
Sometimes they wish me on others,
And long with all their heart that I'd go.*

*I come in many forms,
from mild to very severe.
But no matter what form I may take
I am always near.*

*Behind closed doors, they weep
Tears of sadness and of pain;
They hate that they cannot be normal
I smile smugly to myself in vain.*

*My name is Cerebral Palsy
And although I am not fatal
Some wish I was half-heartedly.*

*I will follow my victims,
For as long as they shall live.
I will take, and take, and take from them
Until they have nothing left to give.*

*Eventually I will let them go
And then they will be left free;
Even so, I'll haunt them at their graves
And remind them that I am still I*

*My name is Cerebral Palsy
I own you, my puppet on a string;
You are mine, and so is your soul
Until you grow those angel wings...*

By Erin Gough

Abstract

This study looks at challenges faced by female pupils with cerebral palsy in elementary mainstream schools in Dubai. It focuses on three aspects of inclusion of learners with cerebral palsy, namely, physical, academic as well as social-emotional. It examines issues faced by these learners and suggests ways in which these barriers may be removed. This study uses a multimethod approach, all of them generating qualitative data. The researcher gathered information by the use of semi-structured interviews, field based observations and document analysis. An attempt was made to look at the commonplace life of the student participants in the elementary mainstream setting, in order to gather facts from all possible aspects and to look at the issues, which may have had an effect on the situation. The results were then further sub divided into aspects that would enable the researcher to gain a wider perspective of the entire situation. The research findings were examined and discussed and an insight was provided into the ways in which existent issues might be addressed. Recommendations were given which would in turn further inform and advance the education of these learners. As a final note, this dissertation stresses the need for further research and suggests directions to achieve the same.

Key words: Cerebral Palsy, inclusion, physical, academic, social-emotional.

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Chapter 1

Introduction

“My gift to you is to make you more aware of your great fortune, your healthy back and legs, your ability to do for yourself.”

-Anonymous

1.1. Introduction

According to the Federal Law no. (29) of the Year 2006 of the United Arab Emirates for Special Needs Rights, a person with Special needs is defined as *“any person affected with total or partial disability or disorder, permanent or temporary, in his physical, sensing, mental, communicative, educational or psychological abilities to the extent that reduces the capability of fulfilling his ordinary needs in parity of ordinary people.”*

The aim of this study is to look at challenges faced by female pupils with cerebral palsy (CP) in an elementary mainstream setting. It will focus on the physical, academic, social-emotional issues that are present in the general education system existing today in Dubai. Inclusion means that all people regardless of their color, gender, socio-economic status, religion, capability, sexual orientation, ethnicity, culture or looks have the right to be regarded and treated as equally valued members of society. An inclusive school is a place where every person belongs, is accepted, supports and is supported by their peers, teachers and community members (Pearpoint et al., 1992; Stainback & Stainback, 1990, 1996). As a result, inclusive education is a process that concentrates on reducing any existing barriers to learning for all children (Ainscow, 1999). Bearing in mind these definitions of inclusion and inclusive education, this study will focus on three aspects of inclusion of the learners with cerebral palsy, namely, physical, academic as well as social-emotional. It will examine issues faced by these learners and suggest ways of how these barriers may be removed. It would provide insights into the ways in which a problem might be addressed. This would in turn further inform and advance the education of these learners.

In the past few years, there has been a significant interest in inclusive educational practices in Dubai. The Federal Law Number 29 of the year 2006 For Special Needs Rights, Article (12) clearly states that *“The country assures equivalent education chances for the Person with Special Needs in all*

educational establishments, professional qualification, adult people education and continuous education. It shall be in the regular classes or in special classes.” Article (15) also adds that a Special Committee shall practice “*putting of the executive programs to assure equal chances in education for special needs people starting from early childhood in all educational establishments in their all regular classes or in specialty units of education.*” With this it is clearly visible that there are provisions for the welfare of these pupils in regular mainstream schools. The provision of special needs facilities in the United Arab Emirates includes free school placements but only for national children (Gaad, 2001). There is legislation, official documentation and guidelines in the region. However, the success of the inclusion policy in Dubai will take a while. This study would make an attempt to outline in some detail the issues related to the education of pupils with cerebral palsy in inclusive settings in regular schools.

This study focuses on inclusion of female pupils with cerebral palsy in elementary private schools in Dubai. Research on inclusive practice has been increasing over the last several years, and studies have focused on inclusion of these children in various age-groups and settings. However, negligible studies have been conducted in this area in Dubai where the experiences of these learners with inclusive practice and how these experiences have had an impact on their lives could have been recorded. This study would look at the areas for improvement in the inclusive education of female pupils with cerebral palsy in Dubai. As rightly stated by Gaad (2001), *with the resources available in such a generous and caring society, there is no reason for not improving educational services.*

1.2. Background

1.2.1. Cerebral Palsy

The International Workshop (2004) on the Definition and Classification of Cerebral Palsy have defined cerebral palsy “as a disorder, contributing further to activity limitation and restricted participation as a group of disorders of the development of movement, posture and coordination, attributable to non-progressive disturbances affecting the brain in its early developmental phase, in other words, the fetal, infantile, and early childhood development. The motor disorder is often accompanied by disturbances of sensation, cognition, communication, perception, behavior and/or by a seizure.” In medical terms, according to Dr. Alvarez (2009), cerebral palsy is an abnormality of motor function (as opposed to mental function) and postural tone that is acquired at an early age, even before birth. Signs and symptoms of cerebral palsy usually show in the first year of life. This abnormality in the motor system is the result of brain lesions that are non-progressive. The motor system of the body provides the ability to move and control movements. A brain lesion is any abnormality of brain structure or function. ‘Non-progressive’ means that the lesion does not produce ongoing degeneration of the brain. It also implies that the brain lesion is the result of a one-time brain injury, that will not occur again. Whatever the brain damages that occurred at the time of the injury is the extent of damage for the rest of the child's life. Paneth (2005) proposed, “Cerebral palsy describes a group of disorders of the development of movement and posture, causing activity limitation, that are attributed to non-progressive disturbances that occurred in the developing fetal or infant brain. The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, cognition, communication, perception, and/or behavior, and/or by a seizure disorder.”

The main interest of this research is in the effect of this disability on the pupil's ability to learn, work and play in mainstream schools. For instance, some children with cerebral palsy can have trouble with their fine motor skills, which have an important role in early learning (Beckung and Hagberg, 2002). According to Freeman and Bachrach (1995) there are four types of cerebral palsies: Spastic (70-80 percent), which is characterized by muscles that are stiffly and permanently contracted; Athetoid (10-20 percent), which is characterized by uncontrolled, writhing, slow movements; Ataxic (5-10 percent), which affects depth perception and the sense of balance; and Mixed, which is a mixture of forms, most commonly spastic and athetoid.

Depending upon which muscle groups are affected, the cerebral palsies may also be classified as monoplegic, triplegic, or quadriplegic, for one, three or four limbs respectively; diplegic, usually referring to both legs being affected; and hemiplegic, for one side of the body. Occasionally, the term pentaplegia is used for those children who also have significant difficulty with motor control of the face or head. Another term, total body involvement, is used when there is difficulty in motor control in all four limbs plus head, neck, and face. Therefore, not all children with cerebral palsy are affected in the same manner. Many children are able to walk and run although their gait may be different. Such children can take part in a full curriculum but may be in need of some assistance to overcome some physical limitations.

1.2.2. The Special Needs Scenario

The United Arab Emirates (U.A.E) is a Middle Eastern federation of seven states situated in the southeast of the Arabian Peninsula in Southwest Asia on the Persian Gulf, bordering Oman and Saudi Arabia. The seven states, termed emirates, are Abu Dhabi, Ajman, Dubai, Fujairah, Ras al Khaimah, Sharjah and Umm al-Quwain. The UAE, rich in oil and natural gas, has become highly prosperous after gaining foreign direct investment in the 1970s. The country has

a relatively high Human Development Index for the Asian continent and ranked 39th globally. The country's total population was estimated at around 4.76 million at the end of 2008 with the ratio of foreign to local population remaining high (The National Media Council, 2008).

As a result of having a diversity of cultural groups, according to Gaad and Arif (2008), there are a large number of private schools in U.A.E. with considerable differences in curriculum being offered in order to cater for the diversity in 'religious, cultural and education needs' of these various expatriate groups (Bradshaw, Tenet & Lydiatt, 2004 cited in Gaad & Arif, 2008) while the government schools serve the local Arabic population. With regards to the education of children with special needs, it is offered in the form of a few government-run 'Centres for Preparation and Rehabilitation for the Handicapped' which are only for locals while various specialized private therapy centres are open to all nationalities (Gaad, 2001). Interestingly, it is worthwhile to note that while all educational institutions come under the Ministry of Education, all centres for specialized education fall under the authority of the Ministry of Labour and Social Affairs (Gaad, 2001).

In 2006, the government came out with The Federal Law Number 29 for Special Needs Rights. The Gulf News reported on 12 September 2006, that the Law was comprehensive and matching international standards. In comparison to similar laws in the United Kingdom and the United States of America, the law still lacks provisions and is not detailed. With reference to an article in the Gulf News, published on 6 July 2009, the gap between mainstream schools and special needs centres is huge in the Dubai and there are a lot of children falling within this gap with no options but to remain at home due to inadequate support in the region. However, accepting these as teething problems and looking at the current scenario, the country may progress well in the future.

1.3. Research Questions

This investigative study on the current status and issues related to the educational services provided to female pupils with cerebral palsy in mainstream elementary schools would look at answering the following research questions:

- What are the main physical issues related to the inclusion of pupils with cerebral palsy in mainstream private elementary schools in Dubai?

- What are the main academic issues related to the inclusion of pupils with cerebral palsy in mainstream private elementary schools in Dubai?

- What are the main social-emotional issues related to the inclusion of pupils with cerebral palsy in mainstream private elementary schools in Dubai?

- What are the recommendations that can be made for the successful inclusion of pupils with Cerebral Palsy in mainstream elementary private schools in Dubai?

- What further research can be conducted in the field of inclusion of pupils with cerebral palsy in mainstream elementary private schools in Dubai?

1.4. Rationale for the Research

The purpose of the study is primarily to bridge the gap between current knowledge and classroom practice in this part of the world– research that is more responsive to the needs of pupils with cerebral palsy in regular schools and their education.

Review of available literature in Dubai also revealed that there is a need for research to be conducted in this area. Some developments towards inclusive education of children with special needs in primary education have been reported in the United Arab Emirates (Gaad, 2004). However, negligible studies have been conducted in this area in Dubai where the experiences of these learners with inclusive practice and how these experiences have had an impact on their lives could have been recorded. This study would look at the areas for improvement in the inclusive education of female pupils with cerebral palsy who have been included in regular elementary schools in Dubai.

Additionally, another objective of the study is to address the issues facing learners with cerebral palsy who have been included in mainstream elementary schools in Dubai. Since a long time children with disabilities have been segregated from their typically developing peers, even from society as a whole (Karagiannis, Stainback & Stainback, 1996). According to Gaad (2001), all children in the United Arab Emirates have access to mainstream Government education, which is of strong Islamic and Arabic influence. However, non-nationals, especially non-Arabic speakers usually send their children to schools of their national character, which are available all over the Emirates. There has been a recent movement all over the world towards the increased inclusion of students with learning disabilities and that includes cerebral palsy, into the mainstream classroom. Pupils with cerebral palsy have distinct needs. There are few known cases of such children being admitted to regular schools in Dubai. This study, therefore, aims to explore specific issues associated with integration

of these students into the general education system existing in Dubai thereby improving the quality of education.

Personal experience with observing and teaching such a student in a private mainstream elementary school in Dubai has fueled an intense interest in educational practices relating to pupils with cerebral palsy. Related research too has emphasized that as more children with cerebral palsy are integrated into mainstream schools, it is increasingly important to remember that supporting these pupils requires appropriate provision to foster their social as well as their academic and physical development (Yude, 1999).

1.5. Background of the Researcher

Since receiving her Bachelors degree in Psychology, a Bachelors degree in Education as well as a Masters degree in Clinical Psychology, the researcher has worked as a Class Teacher to children with special needs in mainstream schools in India and the U.A.E, teaching the curriculum laid down by The Council for the Indian School Certificate Examinations; and in Oman, teaching The National Curriculum of England and Wales. During her teaching career, the researcher has been involved in the tutoring and remedial teaching of children diagnosed with cerebral palsy and other special needs. She has also volunteered her services unofficially to children with special needs and worked with the Enhancement Services Unit in a mainstream British school in Dubai.

1.6. Organisation of Chapters

This paper is divided into 5 chapters followed by 3 chapters, which provide a list of publications referred to, the bibliography and the appendices. Chapter 1 provides an introduction to the background of special needs in Dubai and the purpose of the study. It also raises the research questions that this study aims at. Chapter 2 is concerned with the methodology used and elaborates on the issues of reliability and validity. Chapter 3 includes a literature review of publications concerning cerebral palsy and the inclusion scenario in Dubai. Chapter 4 incorporates the findings of the data collected through field observations, interviews and document analysis, providing samples where necessary. Post investigation, Chapter 5 concludes the study by a discussion of the findings, followed by research-based recommendations and avenues for future research. Chapter 6 and 7 provide a list of references and the bibliography respectively. The dissertation ends with Chapter 8, which comprises of a listing of the appendices.

Chapter 2

Methodology

“But I have come to know, the ‘why’ matters not; the battle must be fought.”

- Joy Saunders Lundberg

2.1. Rationale for the Methodology

This investigative research was approached as a qualitative study since it would provide a rich picture of the educational phenomenon of learners with cerebral palsy in regular mainstream private schools in Dubai. Denzin and Lincoln's (2000) generic definition of qualitative research states, "it is a situated activity that locates an observer in the world. It involves an interpretive, naturalistic approach to the subject matter." Therefore we can add that a qualitative researcher would study things in their natural settings, making an attempt to understand and interpret them in the same. To do so he may have to use empirical methods like personal experience; introspection; life story; interview; artifacts; cultural texts and productions; observational, historical, interactional and visual texts that describe routine and problematic moments and meanings in the individual's lives (Denzin and Lincoln, 2000:3). The criteria that established the appropriateness of choosing this approach over the quantitative method was that more aspects would be provided about the uniqueness of the learner's disabling condition in the environment of a mainstream classroom. An additional reason for this choice was that the methods employed in by qualitative researchers are simple to do and require little, if any, specialist training (Travers, 2000:2). I agree with Peck and Furman (1992) who noted that qualitative research has enabled the development of professional interventions in special education that are responsive to the cognitive and motivational interpretations of the world held by children, parents and professionals.

2.2. Methods

This study uses a multimethod approach, all of them generating qualitative data. The researcher gathered information from semi-structured interviews, field based observations and document analysis. Pugach (2001) states that these three methods of data collection provide “*multiple data sources for telling of disciplined stories which are products of systematic planning and careful hours and months and years in the field which is often the grist for profound insights about individuals or situations at hand.*” This data triangulation would enhance the rigor of this small-scale research and would hence help encounter any threats to validity. The methods used in this study are discussed below.

2.2.1. Semi-structured Interviews.

The study involved the use of semi structured interviews of the female learners with cerebral palsy; the teachers who teach the concerned learners in the study, the school special educator, a member of the school management, the parent and any therapist involved (refer Appendices 59- 80). The name ‘semi-structured’ meant that the interviewer set up a general structure by deciding in advance what ground is to be covered and what main questions were to be asked. This left the detailed structure to be worked out during the interview (Drever, 2003). The questions were pertaining to academic, physical and social-emotional aspects of the learner with cerebral palsy in regular private schools and the discussion that took place provided insight and depth to issues of inclusion in mainstream situations. The researcher used the Ann Lewis method (2004) for interviewing children with learning disabilities where the child is interviewed with another child or in a group as this helps to reveal consensus views, challenge one another’s views and in general generate richer responses.

The researcher chose the interview method because it was possible to gather factual information about people's circumstances, opinions and explore in depth their experiences and reasoning. There were opportunities to explain ambiguities, correct misunderstandings and seek clarifications. So as a result what was apparent was a set of superior quality data from all the interviewees. This method was most apt for this study because as King (1994) suggests it should be used in studies that focus on particular phenomenon of the participants, in this case, issues involved in the process of mainstreaming. He also emphasized its use in exploratory studies, which again was the case in this study.

2.2.2. Field- based Observation

The second method of data collection was field-based observation of the learners with cerebral palsy. In this case the researcher observed the learners in the natural setting of the mainstream schools. A more restricted definition of observational methods would be applicable here and that would be *direct observation as carried out by the human observer* (Robson, 2002). A major advantage is that you do not ask people about their views, feelings, attitudes, instead you see what they do and hear what they say. In this study it involved direct and passive participation on the part of the researcher who did not interact with the pupils. The researcher descriptively and inferentially observed the learners in six classes pertaining to the school subjects- Numeracy, Literacy, Topic (Social Studies/ Science), Arabic, Music, Physical Exercise, Art and Library. In addition the researcher also observed them during reception, recess time and end of school time. The researcher was able to observe the provisions of service available for the learners with cerebral palsy in the physical, academic and social environments of the mainstream elementary private schools. Since this was an exploratory study, this technique was a way to get at 'real life' in the real world (Robson, 2002) or as Montaigne, over 400 years ago, observed, "*Saying is one thing, doing is another.*" A wealth of information was made

available in the descriptive approach that was taken. The researcher avoided using checklists or category systems and instead went in for running descriptions because the former limit and tie the data collected down to predetermined criteria. In contrast to checklists, descriptions allow us to record important and valuable actions and events that happen in the regular classroom that would otherwise have been lost (Robson, 2002).

2.2.3. Document Analysis

The third method to complete triangulation of data was analysis of documents. Documentary analysis of educational files and records can prove to be an extremely valuable alternative source of data (Johnson 1984:23). According to Robson, 2002, primarily, a written document could be a book, newspaper, notice, letter but the term is sometimes extended to include non-written documents such as television programs, pictures, drawings or photographs. It is a general term for an impression left on a physical on a physical object by a human being. The documents that the researcher studied were the class workbooks and worksheets in the main school subjects namely, Numeracy, Literacy, Arabic and Topic (Social Studies/ Science). The researcher also looked at the test scores of the learners, their Individual Education Plans, the school policies with regards to Special Education Needs as well as the Federal Law No: 29 of the year 2006 in detail to look at provisions made for the learner with cerebral palsy. The researcher also supplemented this method with analysis of textual and multi-media products, ranging from newspaper articles to websites of the schools, government departments and news portals. This extended textual research into what is more usually called cultural studies. This enabled the researcher to gather data about the social context of the emirate and the environment of the school. Watson (1997) stated that one could learn a great deal about organizations simply by studying the messages pinned on notice boards. The researcher obtained copies of brochures of the schools and notices that provided insight into the research questions.

2.3. Methodological Issues

2.3.1. Validity

Validity is the strength of our conclusions, inferences or propositions. Cook and Campbell (1979) define it as the "best available approximation to the truth or falsity of a given inference, proposition or conclusion." Validity is concerned with whether the findings are 'really about what they appear to be about' (Robson, 2002). According to Robson (2002: 175), triangulation can help to counter all threats to validity. Cohen and Manion (1994: 240) suggest the use of multiple methods to evaluate certain aspects of education. In this study, the validity of data was strengthened by triangulation of methods. Data was collected with the three methods discussed above, namely, observation, interviews and document analysis. Transcripts of interviews were returned to the respondents to guard against researcher bias. The researcher kept a record of activities while carrying out the study like transcripts of interviews and observation notes. This audit trail reduces threat to the validity of the study (Robson, 2002).

2.3.2. Reliability

Reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions (Bell, 1999). For this purpose, the learners were observed on similar but separate occasions across time, as this would increase reliability of the study (Mertens & McLaughlin, 2004). Observer effects were kept to a minimum using minimal interaction with the learners and habituation of the learner to the observer's presence (Robson, 2002). The use of the Ann Lewis method (2004) for interviewing children with disabilities enhanced the reliability of the pupil's responses.

2.4. Ethics

Ethics refers to the rules of conduct, typically, to conformity to a code or set of principles (Reynolds, 1979). Ethics are usually taken, as referring to general principles of what one ought to do. The researcher has carried out this study with all honesty. In order to carry on this research, the researcher took permission from the school and the parents of the three learners with cerebral palsy before the commencement of the research. The teachers, school and parents were informed about the exact purpose of the study. Informed consent is a standard principle in a variety of professional practices as well as social research (Honman, 2002). The consent is generally needed from the parents, guardian for minors and from school officials if research is carried out in the school (Mertens, 2004). The interviewees were briefed on the precise purpose of the study and they were allowed to read formal transcripts of the interview and add comments. Prior permission was sought to use the Dictaphone during interviews. All information collected was kept confidential. Due consideration was given to anonymity of the participant schools, learners, teachers, parents and professionals who were involved in the study.

Out of the three participants, the researcher knew one of them. The researcher has tried her best to lessen the impact of researcher bias by behaving in as neutral a fashion as possible. The observations recorded during the conduct of this study were descriptive and naturalistic in nature. Descriptive observational variables require no inference making on the part of the researcher (Mehra, 2002). Personal reactions were not included in the detailed field notes. The observations were flexible and were not structured around a hypothesis, as the study did not involve a hypothesis. The researcher came up with key findings purely on the basis of observations during school hours, answers to the interview questions and analysis of documents provided. References to the appendices are made where applicable. Data triangulation, based on unmanipulated facts being included in the research findings, has helped overcome researcher bias.

2.5. Limitations

An important limitation in this study was access to mainstream schools that had included male learners with cerebral palsy. Due to this, the researcher had to change the focus of the study to only female learners. A related issue was also access to the personal and confidential files of these learners. Another issue was the selection of time-consuming data collection methods. Since many interviews were conducted, it took time to transcribe them. Scheduling of interviews posed a problem. Since there were time constraints on the teachers, interviews were conducted during break times or in between sessions. Another associated limitation was the subtle avoidance of giving an interview by T's Class Teacher. A good list of readings would have been extremely beneficial to enable one to reflect upon prevalent practices, discussions or debates between intellectual and theoretical schools of thought or perspectives. In this case, there was a lack of literature available, addressing the foundation of cerebral palsy and education especially in the Gulf region. In addition, most of the literature available in the journals had a medical bent. Since the researcher does not have a medical background, it was a challenge to comprehend available literature. Further, while cerebral palsy is a condition that affects movement, posture and coordination, there can be associated conditions that are likely to occur in some children. The three learners were different in their severity of the condition. This proved to be a limitation in the conduct of the study. Lastly, the change of residence of the researcher to another country, due to personal reasons, came as an unexpected drawback.

2.6. Introduction to the Participant Students

The names of the participant learners and schools have been kept confidential to protect their identity due to ethical reasons.

2.6.1. V

V is a female student who is fourteen years of age. She studies in the fifth Grade of School 2. During birth, she experienced birth asphyxia for five to eight minutes. She was diagnosed as having mild quadriplegia with the disability more in the lower limbs. She underwent three surgeries and has been regular with occupational and physiotherapy. She attended the Spastic Society of Chennai in India for one year before moving to Dubai. V attended a Special Needs School in Dubai for four years. Two years ago she joined her present school. V is a self-motivated student who is academically capable. She loves attending her present school.

2.6.2. K

K is an eleven-year-old female student studying in the Elementary section of School 1 in Grade 4. She was born at the Dubai Hospital and was diagnosed with diplegic cerebral palsy. During the early years, her movements were not like normal children. She has regularly attended occupational therapy and physiotherapy sessions. Initially she studied at a Special Needs School in Dubai. She developed considerably very well. Since the past three years K has been studying at her present mainstream school. She is good at academics and enjoys attending school.

2.6.3. T

T is a female student of nine years, presently studying in Grade 3 in School 1 since the past four years. She was born prematurely at twenty-eight weeks in Leeds. She had had a brain hemorrhage at four days of age. She was diagnosed as diplegic cerebral palsy at approximately fourteen months of age. She had an amniotic band on her ankle and dropped foot too. At eighteen months she had this removed by plastic surgeons along with a tendon transfer by orthopedic surgeons. She attended Tiger Tots nursery in Taipei followed by the Taipei British School Nursery, Taiwan. In December 2005, she returned to the UK to have a double tibial osteotomy on both legs. After recovery she moved to Dubai and joined her present school. She is a friendly child. Academically she faces challenges in literacy and numeracy and has a very short attention span.

2.7. Introduction to the Participant Schools

2.7.1. School 1

This school is a co-educational multi-national school with children and staff representing over fifty nationalities. It follows the National Curriculum for England, implementing the latest developments in teaching and learning. The school opened in 1992 in a small villa with just fifteen pupils. It has followed a continued programme of expansion resulting in provision for over three hundred children in a large complex complete with swimming pool and spacious playgrounds, situated in central Dubai. The school is a member of British Schools in the Middle East and European Council for Independent Schools.

2.7.2. School 2

Founded on the 18th of October 1986, the school projects an educational outlook few schools can rival. Affiliated to the Council for the Indian School Certificate Examinations, New Delhi, the school opens admissions to pupils from the Kindergarten level. It is co-educational from Kindergarten to Grade 4 level. There are separate sections for boys and girls from Grade 5 onwards. Students at the school learn about the world and the people in it from an early age, developing an awareness of different cultures and countries. With its affiliation to the Council for the Indian School Certificate Examinations, New Delhi, India, the School follows the curriculum set by the Board. The Afternoon Self Improvement Programme is an integral part of the school's curriculum and is a powerful force in advocating and promoting all co-curricular activities. The Board and the curriculum framework provide a platform for diversity of intelligence in children and provide multiple avenues to focus on the student's potential. The School is recognized by the Ministry of Education, Dubai, U.A.E, for teaching the Council for the Indian School Certificate Examinations curriculum.

Chapter 3

Literature Review

"The only disability in life is a bad attitude."

- Scott Hamilton

3.1. Special Education Needs in the U.A.E.

Referring to the United Arab Emirates, Gaad (2001: 322) found that “*while this small but wealthy country has achieved a great deal of growth and development in the last thirty years with rapid change touching every corner of the social system including education of children with disabilities, it needed to touch the education of children with intellectual disabilities who were segregated from regular schools.*” According to Gaad (2001), all children in the U.A.E have access to mainstream Government education, which is of strong Islamic and Arabic influence. However, non-nationals, especially non- Arabic speakers, usually send their children to schools of their national character, which are available all over the Emirates and Dubai in particular.

There has been a recent movement all over the world towards the increased inclusion of students with disabilities and that includes cerebral palsy into the mainstream classroom. Pupils with cerebral palsy have distinct needs. It was reported in Emirates Today on the 19th of March 2008, by *Dr. Abdullah Al Karam*, Chief Executive Officer of Dubai’s Knowledge Village and Secretary General of Dubai Education Council that “it is necessary that children with special needs are not isolated from society.” The Federal Law Number 29 of the year 2006 For Special Needs Rights, Article (12) clearly states that, “*the country assures equivalent education chances for the Person with special Needs in all educational establishments, professional qualification, adult people education and continuous education. It shall be in the regular class or in special classes.*” The Law is designed for Government schools but private schools too are expected to follow it. There are a few known cases of such children being admitted to regular schools in Dubai. As reported in Gulf News on the 11th of January 2008, the Director of Special Education Department at the Ministry of Education, Dr. Aisha Al Jalahma, said that the Ministry of Education still did not have reliable statistics on the number of pupils with special needs that were integrated partially and fully into schools.

3.2. Characteristics of Cerebral Palsy

Cerebral Palsy is a broad term, which encompasses many different disorders of movement and posture. All children with cerebral palsy have damage to the area that controls muscle tone (Gersh, 1998). Cerebral palsy is a static disorder of the brain, not a progressive disorder. Children with cerebral palsy have many other kinds of problems, including medical problems, which may include epilepsy, mental retardation, learning disabilities and/or attention deficit disorder. According to Freeman and Bachrach (1995), there are four types of cerebral palsies: Spastic (70%-80%), which is characterized by muscles that are stiffly and permanently contracted; Athetoid (10%-20%), which affects depth perception and the sense of balance; Ataxic (5%-10%), which affects depth perception and the sense of balance and Mixed, which is a mixture of forms, most commonly spastic and athetoid.

Depending upon which muscle groups are affected, the cerebral palsies may also be classified as monoplegic, diplegic or quadriplegic, for one, three or four limbs, respectively; diplegic, usually referring to both legs being affected; and hemiplegic, for one side of the body. Occasionally, the term pentaplegia is used for those children who also have significant difficulty with motor control of the face or head. Another term, total body involvement is used when there is difficulty in motor control in all four limbs plus the head, neck and face. Therefore, not all children with cerebral palsy are affected in the same manner. Many children are able to walk and run although their gait maybe different. Such children can take part in a full curriculum but maybe in need of some assistance to overcome some physical limitations.

3.3. Causes of Cerebral Palsy

According to Gersh (1998), there are two factors that could cause cerebral palsy.

1. **Developmental malformations:** In the first and second trimesters of pregnancy, fetal brain cells multiply rapidly and grow near the inner layers of the brain. Occasionally, something may disrupt the brain's normal development process like faulty blood supply to the brain, genetic disorders or chromosome abnormalities. These malformations in the areas of the brain, which control voluntary movement, may cause cerebral palsy.
2. **Neurological damage:** Cerebral palsy may also be the result of an injury to the brain before, during or after birth. These injuries are most often caused by problems associated with premature births, difficult deliveries, neonatal medical complications or trauma to the brain, the most common ones being lack of oxygen, bleeding in the brain, toxic poisoning, head trauma, severe jaundice or infections of the nervous system.

3.4. Educational Provision for Children with Cerebral Palsy

3.4.1. Early Intervention

According to Miller and Bachrach (2006), early intervention programs are designed to identify and treat a developmental problem as soon as possible. An early intervention service is one that begins before three years of age and is designed to improve the development of a child with a developmental delay or disability (Jarrett, 1998). These services can include special instruction; physical, occupational or speech therapy; health services; family training and counseling; or assistive technology services. It is argued that 'management' of cerebral palsy should start early so that children can achieve maximum potential and growth development, including full participation in society (United Cerebral Palsy, 1997). Early identification and intervention with children who have cerebral palsy can

help to achieve these aims. According to Jarret (1998), most children with cerebral palsy need to begin their formal education much earlier than children who do not have special education needs. They usually need services to help them improve their motor skills and often need services to help them develop communication skills.

3.4.2. Individual Education Programs

According to Rasansky (2004), since cerebral palsy is a non-progressive disorder, extensive initial testing is crucial to determine the severity of both physical and mental symptoms. Any future teacher of a cerebral palsy child should have access to all initial test results. This information assists teachers in developing individualized educational and therapeutic programs specifically geared toward maximizing a cerebral palsy child's improvement. Teaching children with cerebral palsy usually requires individually tailored education programs combined with various types of therapy and should focus on progress and positive change in a child's current abilities rather than in lessening a specific cerebral palsy disability.

3.4.3. Therapies and Strategies

Therapy by professionals can help the learner with cerebral palsy optimize their development. The physical therapist, the occupational therapist and the speech language pathologist are the important professionals who can provide services for short or longer periods. According to Foltz (1998), the goal of physical therapist is to identify and treat problems with movement and posture, or body position. The therapy provided works on posture, transitional movements, persistent primitive reflexes, balance, sensory impairments and joint mobility. Degangi (1998) explains that occupational therapists help the learner to overcome sensory, motor and perceptual problems affecting learning and daily

living skills. Treatment programs are highly individualized and are geared to individual intellectual, language and social-emotional abilities. According to Lewis (1998), the part of the communication process that children with cerebral palsy usually have the most trouble with is speech. Speech and language therapy can help children improve muscle tone, oral-motor problems and to master the physical aspects of speaking and learning to communicate in other ways such as sign language, picture symbols or the Morse code. Most therapists work together as a team with parents to develop strategies that work best for the child with cerebral palsy.

3.5. Inclusion and Cerebral Palsy

In the past years there has been a shift in educating children with special needs to an inclusive environment in mainstream settings. In this, all students with disabilities are served the entire day in the general education classroom, although special education teachers and other personnel may also be present in the general education classroom at times (Stainback & Stainback, 1990). There has been a recent movement all over the world towards the increased inclusion of students with learning disabilities and that includes cerebral palsy into the mainstream classroom. Pupils with cerebral palsy have distinct needs. In recent years, there has been a significant increase in inclusive education practices in the U.A.E. The movement toward inclusive schooling in U.A.E. was called for by educationalists (Gaad, 2001; Alghazo & Gaad, 2004). There are few known cases of such children being admitted to regular schools. As we know, there is legislation, official documentation and guidelines with respect to inclusion in the region. But in spite of this, as quoted by Dr.Eman Gaad in a newspaper article “...*the effective inclusion is far from achieved.*” The Ministry needs to come up with specific policies and regulations with respect to curriculum modification. These need to be implemented and evaluated on a regular basis in coordination with the parents and special educator. Chow & Winzer, 1992, cited in Alghazo & Gaad, 2004, argue that in order for inclusion to be successful, regular education

teachers need to develop positive attitudes towards included children. Professional development could be helpful to create an 'inclusion culture' among serving teachers (Alghazo & Gaad, 2004). Inclusion is but a process involved in making mainstream schools accessible in terms of curriculum and teaching, organization, management, the physical environment, ethos and culture (Swain and Cook, 2001 cited in Ypinazar & Pagliano, 2004).

Corbet (1998) points out that the way in which individuals are valued determines their status in any community. Furthermore, the historical attitudes to disability within each culture will affect how children with special educational needs are being valued today and how this influences the ways in which their parents may treat them. This brings us to the cultural aspect. The United Arab Emirates is known for its dependence on expatriates (Gaad, 2005). It has a culturally diverse environment. The diversity in schools includes aspects of ethnicity, language, socioeconomic class, learning styles, disabilities, sexual orientation, race and gender (Price, 2002 cited in Gaad, 2005).

Chapter 4

Research Findings

*" Disability is a matter of perception. If you can do just one thing well,
you're needed by someone."*

- Martina Navratilova

4.1 Introduction

This investigative study used qualitative research methods to collect data that would answer the research questions. The information was gathered using semi-structured interviews, field based observations and document analysis. The researcher has made an attempt to look at the commonplace life of the student participants in the primary mainstream setting, in order to gather facts from all possible aspects and to look at the issues, which may have an effect on the situation. The first section of this chapter will look at the results collected by the use of the three research methods. The findings would give an insight into the physical, academic, social and emotional issues that female learners with cerebral palsy might face in a mainstream setting. These issues have been further sub divided into aspects that would enable the researcher to gain a wider perspective of the entire situation.

A recapitulation of the related research questions:

- What are the main physical issues related to the inclusion of pupils with cerebral palsy in mainstream private primary schools in Dubai?
- What are the main academic issues related to the inclusion of pupils with cerebral palsy in mainstream private primary schools in Dubai?
- What are the main social and emotional issues related to the inclusion of pupils with cerebral palsy in mainstream private primary schools in Dubai?

4.2. Physical Issues

4.2.1. Access to All Parts of the School

On the basis of observations made of the three pupils V, K and T during school hours (including class time, recess time, reception and end-of-school time) and through interviews, it has been seen that they do not have access to all parts of the school. In school 1, it was observed that the main entrance to the school does not have a ramp and hence both K and T required assistance in climbing the stairs (refer Appendix 47, 56). All the wings of the school building do not have elevators hence the girls cannot access all parts of the school. The school has three buildings on the campus but only the main building has an elevator. As quoted by T's mother, "*More thought should have gone into the design of the school for access...no lift access to the gym.*" Similarly, in the interview with K, she said she was forced to use the toilets on the ground floor to change as the changing rooms were on the first floor (refer Appendix 67). This was inconvenient as the toilets did not have hooks and were wet many a times. Access to classrooms was also an issue in School 1. It was observed that the classrooms for K and T were located on the first floor but the Arabic room, swimming pool and playground were on the ground floor. For a half an hour Arabic session, K and T spent at least 10 minutes trying to get to the classroom.

In School 2, there was only one ramp in the entire school. V's classroom was located on the ground floor of the building but many of her classes were on the first and second floor of the campus buildings, hence she had no access to the Music room and the Science laboratories. The school did not have any elevators. During the Music lesson (Appendix 36) V sat in the class alone and completed her written work. As stated by her Science teacher in an interview (Appendix 66), "*...except for once I have not been able to get her to the Science laboratory*".

Both schools had heavy doors, which made it difficult for the learners with cerebral palsy to move around in the school premises.

4.2.2. Space for Movement

Students with cerebral palsy in most cases do require some support in moving about in their classrooms as well as in the school premises. Through observation and as reported in the interviews, it can be reported that the classrooms in both schools lacked space. These students used the wheelchair and crutches. Movement in the class on the wheelchair was restricted. As pointed out by the Special educator of School 1, *“I feel the physical arrangement of the classroom needs to be addressed...it looks more like she’s (T) going through an obstacle race each time, to get past the table and chairs.”* As observed by the researcher, there was barely any space in the classrooms of school 2 for a single line of students to walk through. The walker would not be able to fit into the classroom and V always parked it outside the class door.

The place to sit in the class is also of crucial importance. T sat next to a glass door in her Arabic class and was distracted most of the time (Appendix 54) and K sat with her back to the board so she had to twist her head uncomfortably to see the spellings (Appendix 42).

4.2.3. Furniture

K expressed concern over furniture in the corridors (Appendix 67) and contributed the extra time taken to reach another class to it. School 1 keeps round tables and chairs around it to enable teachers to have pull out sessions and small group sessions. There were cabinets and lockers in the corridors of both schools, which, as observed by the researcher, made the corridors even narrower.

As seen in the class observation of T in the Music room, T sat on a stool with no backrest. This put a lot of strain on her stomach muscles. The stools in the art room too were very high and not at all friendly for use by K and T. In Appendix 34, it was reported that V's desk was too low and as a result, V struggled with her class work. All three participants used normal school furniture and all found it uncomfortable. K's mother also reported in the interview that she would have preferred "...*tables with a foot rest...*" for her daughter so that her feet do not have to hang loose as this would cause a strain on her muscles.

4.2.4. Use of Toilets

Students with cerebral palsy always require access to a toilet along with assistance for the use of the same. In the case of V, she emphasizes the fact that she finds it very difficult to use a toilet in the absence of a maid or buddy. She also mentioned "...*I am not allowed to close the door when I use the toilet...I don't like it if another student enters the girl's washroom.*" Both schools did not have railings to use in the toilet. When K first joined School 1, care was taken to provide rails in the toilets in the ground floor but over the years, as her class moved to the first floor, the toilet rails were not fixed for the comfort of these students. The doors to the toilet were also heavy for the girls to maneuver. As observed by the researcher, during recess time, T kept calling out for someone to help her open the toilet door as there was no one in there to assist her. Neither any teacher nor helper was present (Appendix 57).

A common problem related to this in all three participants was the dislike to use the toilet and hence refusal to drink adequate water and related urinary medical problems. V and T's mothers reported that they drink very less water throughout the day and hence suffer from frequent urinary tract infections. K also has bladder-associated problems and hence wears a diaper as sometimes she has a leak because it takes time for her to travel to the toilet (Appendix 69).

4.3. Academic Issues

4.3.1. Curriculum Modification

On the basis of observations and interviews conducted with the Special Educator and Management of School 1, the researcher can conclude that no curriculum modification as such has taken place. Instead they were flexible in their expectations. K was academically quite strong but T's targets differed from those of her peers.

In the interviews conducted on the teaching and supervisory Staff of School 2, it was clearly noted that no curriculum modification had taken place. The assessments were the same for the entire class. The lesson plan was also the same for V and her classmates. Her academic goals remained the same as the rest of the class. In Appendix 66, V's Science teacher reported that, "...*the workload is just too much* (to plan a lesson keeping V's ability level in mind)..." The only modification is the exemption from doing a second language (Appendix 12) in accordance with the rules and concessions granted by the Council for the Indian School Certificate Examinations.

All the participants were given extra time to complete their assessments.

4.3.2. Alternative Curriculum

There were no instances of alternative curriculum taking place in the two Schools. When V was unable to do P.E., she just sat on the steps and watched her colleagues. During Music and Science practical sessions, V was sitting in her class completing her written work. During these sessions no alternate lesson was planned for her. Similarly, during certain sessions where K and T could not

participate in PE sessions, they sat on a chair and watched and did nothing stimulating. There is no alternative curriculum planned.

4.3.3. Written Workload and Handwriting

Interestingly, in interviews conducted with V, K and T (Appendices 59, 67, 74), all three participants showed a dislike for written work. V mentioned that a lesson would be uninteresting if “...*there is too much written work...*” K mentioned that lessons with only written work tend to be “*boring*”. Lastly, in answer to anything that the student would like changed in the way things are taught in the school, T replied that, “...*there should be less written work*”. V’s mother also said that the written work was too much. V was unable to complete her work during class hours and as a result it all piled up by the end of the day and has to be completed at home along with the other assigned homework. The Indian system of education focuses a lot on written work and this is a challenge to V. Samples of the amount of written work has been documented and analyzed by the researcher (refer Appendices 15-29).

V and K have legible writing and make an effort to touch and stay within the lines. T on the other hand finds writing to be a bit of a challenge (refer Appendices 27,28,29). The Kinesiologist of School 1 works with T to try and improve her handwriting. A sample of T’s writing after a session of Brain-Gym can be seen in appendix 30 and can be compared to her earlier work. The difference is remarkable. But as stated by the kinesiologist in an interview, “...*It has a very good impact on her especially her handwriting. But for the full effect, she needs to do it at home too. All it takes is 5 minutes but the mother says she is too tired at the end of the day to do it. It is not practical to do it everyday at school. Certain things have to be done at home.*”

4.3.4. Support Services

Both the schools have an in house Special Educator whose job is to provide academic and personal support to the students with cerebral palsy. In School 1, it is a paid service and hence K has no access to any support from the Special Educator. None of the schools have an in house or visiting occupational therapist. School 1 has a visiting physiotherapist, who comes in every Wednesday and does an hour each of therapy with K and T but this service was fixed by the parents outside the school. The parents pay for the fees for these sessions. School 2 does not have any visiting physiotherapist and V attends sessions in the evening outside the school campus. Both schools have a qualified nurse on the campus.

4.3.5. Individual Education Plans

T has an IEP chalked out for her, in consultation with the teachers and parent. A sample of her IEP has been presented in appendix 31. It is detailed and goal specific with opportunities for parent and student contribution. Since Support Services in School 1 are provided against payment of 'enhancement fees', K does not have any support from the Special Educator, as her parents do not pay for these services.

In the case of V, no IEP was planned. During the interview, the Special Educator of School 2 stated, "*We did not come up with a specific IEP for V. I help her where I can. Frankly speaking the school is so big and I look at so many children that I do not have time to come up with IEPs for each child. It is not possible for me.*"

4.3.6. Assistive Technology

In V's case there was no recorded use of assistive technology made that would have helped enhance her performance in school. The only thing V used was a pen grip, as was observed by the researcher. In the case of K and T too, they did not make use of any assistive technology to help them perform better and adjust better to the class situation.

4.3.7. Physical Education and Swimming

The researcher has dealt with these co-curricular subjects separately as they provide maximum challenge to students with cerebral palsy in mainstream settings. In School 1, K and T did participate in the Physical Education (PE) class as was observed by the researcher but their performances were accompanied by feelings of anxiousness and the pressure to perform was present. This was apparent when K asked the teacher if someone could push her wheelchair while playing the game. Their PE teacher commented that PE activities were modified to suit K and T. Larger bats were provided for striking games. On the sports Day, K and T were allowed to participate in as many activities as they could but had to be exempted from the 'sack race' and 'tug of war' which would have been difficult for them to manage. In spite of this K's mother feels that K should be given the opportunity to play certain sports like netball. T thinks PE is not fun, as she cannot play most of the games. For V, she has never taken part in any PE class for the past 2 years. The first year, she was asked to stay home during the Sports Day, as was revealed by her PE teacher in an interview. So her inclusion in PE lessons was practically non-existent.

All three participants can swim with minimal support. While K and T are given the opportunity to step in the pool, V has never entered her school pool. V sat in the class during swimming lessons. K did not have help to change during swimming

class and faced difficulty doing so. As such the time she got to be in the pool was very less. T, on the other hand, had a teacher assistant, who helped her change, as she paid for school support services.

4.3.8. Numeracy and Literacy

V seemed quite interested in her Math class. She had completed her Math homework and was able to attempt the sums in class with ease. Mental Math proved to be a bit of a challenge to her. Her average performance for the year was 70%, the highest in the class being at 97.6%. In literacy, speed of writing was a disadvantage as the written workload was high. She attended individual sessions in Comprehension with the Special educator. Her average yearly performance was 68.4% as compared to the highest in class being 94.4%.

K worked well in both numeracy and literacy. Her teachers were happy with her performance. She enjoyed reading and extended her writing with higher-level punctuation. She spoke English fluently. In Numeracy, she showed good ability to tackle difficult calculations. She had a good ability at problem solving and reasoning. She had a strong foundation for spelling (refer Appendices 21-24).

As believed by the Management of School 1, T “...*does have learning challenges and Math is a mystery to her.*” T receives one to one support to help her cope with numeracy and literacy concepts. Her number bonds were weak and so were her math facts. The special educator was part of the numeracy class once a week and gave her the support required. Her report card (Appendix 26) shows her numeracy level to be below average and her literacy level to be average.

4.3.9. Co-curricular Subjects

V was excluded from most Music lessons as they were situated on the second floor of the building with no access elevators. As mentioned by her Music teacher, “...*whenever possible I would take their singing class in the auditorium...*(which is on the ground floor)”. This could be as less as once in the entire term as reported by V’s mother. V participated in all Art lessons as they were held in her class itself and as commented by the Special Educator, V was very interested in art, especially painting. V was good at the use of the computer. She was working on her typing speed but had not been given a chance to use it for her class work. Unfortunately, Computer Science in School 2 involved a lot of written theory work (Appendix 20), which unnecessarily put a strain on her.

K attends all Music, Information and Communication Technologies (ICT) and Art lessons and as she is diplegic, she is very capable in these three subjects.

T mentions a dislike for these three subjects, in an interview conducted with her she stated that, “...*they should cancel Art and ICT*”. She explained that ICT was something you could pick up at home as well and there was no need to teach it in school. She commented that she disliked Art as she disliked painting. Her apparent disinterest could be seen in the Art class observation by the researcher (Appendix 51). She said she was interested in Music and hence more Music lessons should be included in the timetable. It was also observed during reception time that when T sat alone in the class, she sang to herself loudly.

4.3.10. Reinforcement

On the basis of document analysis done on the report cards and class work of the three participants it can be concluded that all three participants received positive reinforcement for their work done (Appendices 14-29). This was done in the form of written remarks or in the form of stickers. If any area for improvement was to be stressed, it was done so in a positive manner. During observations, the researcher also noted many instances of verbal positive reinforcement by use of motivational words like, “*Well done*”, “*Mumtaza*” and “*Good*”. There were also instances of reinforcement through gestures like a smile or a pat on the back. There was no instance of negative feedback recorded.

4.4. Social And Emotional Issues

4.4.1. Acceptance of Self

The Special Educator of School 2 reported, “*Lot of my work with V started with integrating her in a mainstream setup. Simple things like answering questions like why can’t you walk, what’s wrong with your legs, what is this contraption you are using, and coaching her with specific answers. It was to help her to emotionally settle down. It helped towards her acceptance in school and also V’s acceptance of herself. So I have been working with her from day one, more on these issues...*” Clearly this is one important factor in adjusting to a mainstream setting. As revealed in the interview, when an attempt was made at including V in a game of PE, she herself felt embarrassed because of her lack of dexterity in following the game. K seemed to be quite accepting of her situation but did show performance anxiety when it came to a PE class. T sang loudly in class when she was alone but never when surrounded by friends.

4.4.2. Acceptance by Others

All three participants seem to be accepted well by their peers and teachers. All teachers reported sharing a good rapport with the students with cerebral palsy. It was observed by the researcher that the students did not hesitate to ask for a clarification or answer a query. They approached the teacher whenever required. All the teachers offered assistance and treated them as part of their class. In Appendix 47 and 56, there are instances of K and T being greeted by the school watchman, the peon, the teacher on duty and the receptionist as well. In the case of V too, the teachers treated her well and paid attention to her needs in class as they would to any other child. The senior girls on duty were also cordial to her. There were no reported instances of non-acceptance by others in all three cases. Appendix 43 strengthens this view, when it was observed how the class and PE teacher gave K a go even when she missed hitting the ball. Appendix 45 shows the librarian attending to K first so that she could have enough time to look for another book.

4.4.3. Peer Group

In the case of V, she reported having friends in school. Many of her teachers also mentioned that she had a lot of friends in school. Appendix 38, informs us of V's classmates greeting her as they walked into class in the morning. During recess, the researcher observed that her fellow students walked up to her and offered her chips. During class hours too, she was seen talking and smiling with her friends. In an interview, when asked about her relationship with the other students, V commented, "*They are all very friendly. I love all my friends.*"

In observations of K, during class hours, she too seemed to share a good rapport with her peer group. She played games with them outside during recess time. They helped her when she needed her snack box. In the interviews with the

teachers, all of them stated that K was a well-adjusted and happy child. Though K's mother did mention that, "...*she is rarely invited anywhere I guess because of her condition.*"

Appendix 51, reports an incident in an Art class attended by T, wherein she mentioned to her peers at her worktable that she did not like loud noises; to which the boy sitting next to her laughed and said that he loved bursting balloons. T did react to this in an angry manner.

4.4.4. Peer Support System

All three participants had the support of a buddy during class hours for support and assistance throughout the school day. They were either in the form of a partner sitting next to them in class, or a buddy appointed by the teacher or their best friend. In many instances, as was revealed in the observations of these students; the presence of a buddy was responsible to ease a particular situation for the student concerned. Assistance was provided in the form of assisting the students to or back from a class, help to take a book to the teacher for corrections, to get a file from the shelf, to bring the snack box from the locker, to clean up after a class or after eating a snack, to provide help in answering questions, to carry their bags, assisting with the crutches and pushing the wheelchair. Appendix 53 mentions three girls eagerly jumping up to help T, when the teacher asks for volunteers to take her back to class.

4.4.4. Feelings of Exclusion

In spite of the teachers of the two schools believing that these girls have never felt excluded or that they were not 'aware' of any such incidence, field based observations point out otherwise. In the case of V, she does not take part in PE activities, Music lessons or Science practical lessons. Her PE teacher reported, "*The first year, she was asked to stay at home on Sports day. This year she came but was not included in any of the activities.*" During snack time, V did not go out of the class to play with her friends.

K's mother spoke of K, "*...being hurt many a times on sports day when she tells me that's he should be given some sports according to her ability and treated fairly*". Appendix 41 brings to light an incident where K enquired where she could keep her folder but her classmate J pretended not to hear her and walked away.

In the case of T, observations by the researcher showed that T was apprehensive about being alone. At the end of the day, T said bye to her friends and added that her mother would call and fix play dates. She stressed more on the friends she played with at the end of the day. The Science lesson further strengthened this viewpoint when T quickly held the hand of the girl sitting next to her, twice in the same session, because she knew that the teacher would ask to them to choose partners. Lastly, in an interview, T also mentioned "*PE is not fun because I cannot play most of the games.*"

4.4.5. Parental Involvement and Influence

V's mother seemed to be very involved in her child's education, in spite of having a full time job. At home she helped V complete her work. She had never openly spoken about workload to the teachers. She had always encouraged V to work to the best of her ability.

As revealed by K's class teacher, she did not know that there was no cure for cerebral palsy. The mother volunteered to help in the class on many occasions. She seemed very involved in K's work but did feel that there was scope for improvement in the services offered by the school.

T's mother came across as quite defensive and did mention that K "*...did not require a special needs environment*". She did show her disappointment at the way the Support Unit handled T. Observations showed that the mother avoided eye contact with other parents. An interview with the Kinesiologist of School 1 revealed that the mother did not want to put in extra time at home to do the brain gym exercises. T's mother is a working lady.

4.4.6. Cultural Factors

Both V and K are of Asian nationality. While V comes from India, K hails from Pakistan. As was mentioned by V's mother in an interview, the Indian mentality focuses on the marks achieved in the examinations. They are taken as a reflection that the child is doing well in the school. In K's case also the mother seemed to put a lot of undue pressure on the child to ensure better class performance. T's mother mentioned that, "*... we don't believe sending her to a British state school would be as big a benefit as sending her to an expatriate school. This is due to the general level of understanding and intelligence amongst the expatriate community towards the disabled along with her attending a truly multicultural school.*" This implies a positive cultural climate in School 1.

Chapter 5

Discussion, Recommendations and Conclusion

"I choose not to place a 'DIS' in my ability."

- Robert M. Hensel

5.1. Discussion

In this section conclusions drawn from the research findings are discussed, which in turn provide the answers to the first three research questions. These discussions are further strengthened by review of past literature in the concerned field. While care has been taken to demarcate the points of discussion under the three main areas of study, namely physical, academic and social-emotional, there are instances where the certain issues may overlap and have been placed by the researcher under the area which seemed more suitable.

5.1.1. Physical Issues

The two schools have admitted learners with mobility difficulties in the school but isolation is still present due to poorly thought out settings for the pupils. Absence of elevators, inappropriate furniture, narrow corridors, obstructive pathways in school and absence of sufficient ramps are a hindrance to the child's participation in all school activities. On what basis can we say that these learners do not feel 'excluded' in their respective mainstream primary schools, as stressed upon by the school management and staff?

No access to science laboratories, the assembly hall and the music room for V; the gym and changing rooms for K and T are a matter of concern. The researcher argues that this is against the principles of inclusion. An inclusive ethos implies that all children should be educated together for curricular and social reasons (Thomas et al., 1997: 193). These learners are being 'excluded' from activities within the curricular framework. Room layouts have not included extra space necessary for the wheelchair or walker user. Lack of modified furniture and inappropriate seating put a lot of undue stress on the physical comfort of these learners.

Lack of areas for pupil dignity of the female participants, such as hygiene suites and the absence of toilet helpers is an area of concern. Pupils with cerebral palsy require specialist toilet support or changing areas. The uncomfortable access to toilets has evoked feelings of anxiety in the students. This was reflected in V's refusal to drink adequate fluids throughout the day, in spite of the hot desert climate of Dubai. It has also been seen as a reason to postpone the need to urinate in K, leading to embarrassing leaks and her dependency on diapers. T getting stuck in the toilet due the door being heavy to maneuver, points out to an insecure environment in school for the learner. No access to rails and absence of non-slip floors put a question mark on the health and safety of the pupils. At this point, I agree with Alderson (1999) where he states that 'The basic difference to making a school inclusive is not the building or the resources but the attitude.'

According to the Department for Education and Skills, U.K., (2001), by referring to inclusive environments, it is implied within the semantics, that community facilities are built in order to be accessible and welcoming to all members of that community. The use of a facility by learners who have special needs should have the necessary access facilities for this section of the community among its resources. When we speak of inclusion of learners with cerebral palsy, the main idea is not just related to the physical environment where the students are expected to be able to be as mobile as possible within the school campus without the school building design being changed, or lack of helpers and communication aids. It is also about how learners with special needs are valued by non-disabled people. Inclusive education should create opportunities for all learners to work together (Barton, 2001).

5.1.2. Academic Issues

The inclusive classroom is a more complex learning environment than classrooms of twenty years ago. Teachers in this study reported that their professional preparation to manage children with cerebral palsy was minimal or non-existent.

Curriculum modification involves change to a range of educational components in a curriculum, such as, content knowledge, the methods of instruction and the student's learning outcomes through the alteration of materials and programs (King-Sears, 2001). It is based on the principle of differentiation as a means to give access and entitlement to the entire class. As reported by most teachers, they had the same academic goals for these learners and when planning a lesson, they did not keep their needs in mind. Some attributed it to lack of time and heavy workload. Most teachers reported not having adequate training or back up or school support to do so. A study by Gaad & Khan (2007) indicated that teachers expressed that the heavy teaching load in the mainstream classroom makes it hard to meet the needs of students with special educational needs in the private sector.

Time was an important reason many teachers felt that they could not differentiate tasks keeping these learners in mind. This is because teachers see differentiation as extra and not part of the delivery of the curriculum (McNamara, 1997). The change in focus away from planning the task to planning the learning objective, assessment activity and skills training for working actually creates time because of the simple act of deciding what it is we want students to learn and this leads to prioritization of learning. Differentiation of classroom organization can also be utilized where a set of structures are designed to organize the children into working with each other and supporting each other.

In the case of Numeracy, while K seemed to be at an advanced level, V struggled a bit, especially with Mental Math and T showed a total disenchantment with the subject. The latter could be attributed to weaknesses in the student's underlying cognitive processes (Grauberg, 1998) and deficits in the curriculum and the teaching method (Vaughn, Bos & Schumm, 1997). In accordance with Piaget's theory of cognitive development, children's active exploration of the environment, coupled with increasing physical and neurological maturation, play the most important role in influencing their cognitive development. Clearly, K was observed to be more mature and better developed physically as she had diplegic cerebral palsy than her other two fellow participants who had quadriplegic cerebral palsy. It was seen that sometimes group work in Mathematics became chaotic, as seen in T's case and does not achieve its goal. Activity based group work can sometimes result in much wasted lesson time and loss of academic goals (Sowder *et al.*, 1998).

V did not participate in any physical activity and T's participation was selective. Physical Education is not just education of the physical, but involves education through the physical of other naturally developing attributes such as language, cognition, socialization and emotions (Wright, 1999). Physical movement and development of motor skills is of great importance to children with cerebral palsy. Their involvement in aquatics was similar to that of Physical Education. Water based activities can be used as educational and rehabilitative activities for children with cerebral palsy. It is a source of fitness, relaxation and a vehicle for increasing self worth in such pupils (Winnick, 1995). In the absence of access to certain subjects, Appendix 2 provides evidence of School 2 considering an alternative curriculum. Sadly, this worthwhile thought remained on paper itself, making V feel 'excluded'.

The absence of Individualized Education Programmes (IEP) for V and K was seen as an issue to be tackled. The teaching of children with cerebral palsy required individually tailored programmes combined with various types of

therapy. There are areas of improvement in the overall development of V and K, and this is where a carefully planned IEP would help in maximizing the learner's improvement. Each learner must have her own academic goals, within the areas of academic, social and where appropriate behavioral achievements, specifically set for the mainstream setting, which can be directly related to the targets on their IEP. These have to be realistic. It is not easy to establish a single criterion for success across the entire range of the class population. It was also seen that assessments for these pupils remained the same as the rest of the class. This again comes across as a major question. Is this fair? The time factor for these assessments cannot be the same for the entire class. It is understood that learners with cerebral palsy will require more amount of time while writing.

This brings us on to the topic of workload. In the Indian system, the written workload is quite high. In V's case, she spent most of her time in school and at home completing written work. Lengthy pages of questions and answers were required to be done by each subject teacher (refer appendices 15-20). It was also observed that V had to copy down the questions from the text first before answering them. I argue here that the teacher should have modified the activity for V and permitted her to attempt only the answers. In a subject like computers where the focus is more on the practical part, V should have been given a photocopy of the notes instead of writing them down by herself. Most teachers felt that they made adjustments by allowing V to take the work home and complete it for the next day but little did they realize that at home she had to complete the written work for all the subjects taught through the day and not just theirs. Apart from that V also has the homework for the day to be completed. Since no other services were provided within school, V also has to fit in therapy sessions into her already packed evening schedule. In what way had the school made concessions to include V? It seems more that V has had to come round and adjust herself to the ways of the mainstream setting.

It was observed that the organization of services for the children within the school campus has to be addressed. While School 1 has only a visiting physiotherapist, School 2 has no additional arrangement to provide services to V. There was no support from the health services such as speech therapists, occupational therapists and a physiotherapist, in the case of School 2. The school Special educator should come up with a joined up action with such external service providers to enable the students and their parents to take advantage of these services. Such coordination will help in building bridges and demolishing many barriers (Roaf, 2002). The absence of any school support for K was seen because support was only provided against a fee. Here again the question of ethics stares into our face. The researcher argues that such services are the right of every child with special needs in the mainstream school. The question of discrimination due to monetary factors is evident though documentary analysis shows otherwise. Appendix 4 and 5 provide evidence of School 1 promising access to an enhancement program to all learners with special needs and even boasts of an Equal Opportunities Policy.

Minimal use of assistive technology was observed during the conduct of the study. ICT was taught in both schools, but these learners were never seen using a laptop in class. Nowadays, software programmes with facilities for self-editing, word prediction and grammar/ spell check are easily available. V was seen using a grip aid while writing. No copies of notes were provided to any of the learners. The option of a scribe was also not considered during assessment time. In these days of technological boom, there are many available resources that can make adjustment for the learners with cerebral palsy easier in a mainstream school. It would assist them in performing better and reducing stress related to written workload. Interestingly, Appendix 2 provides an excerpt from a piece of research done by the Management Body of School 2, which supports the use of assistive technology with pupils with cerebral palsy but use of the same was not seen.

All three participants were found to be in responsive environments. According to Ware (2003), a 'responsive environment' is one in which people receive responses to their actions, get an opportunity to give responses to the actions of others and have the opportunity to take the lead in interaction. It was also found that the teachers provided positive feedback and interacted in positive ways with the learners with cerebral palsy.

5.1.3. Social and Emotional Issues

It has been seen that in general, all three female participants in this study were quiet by nature. This can be supported by the fact that girls have better inter-neural links between both hemispheres in the brain and hence they are better equipped to handle issues that need both sides working in harmony (Biddulph, 1997).

It was also seen that interactions with the parents showed scope for improvement. In the case of V, there was negligible communication between the mother and the school. K's mother had the least interaction with school staff and T's mother expected more out of the liaison. Even though parents feel positively about many individual professions (Byrne et al., 1988), surveys show widespread and fairly uniform dissatisfaction on aspects of their professional services. It is very important to learn of a family's general concerns and needs. Differing perspectives and contributions can lead to frustration and dissatisfaction, as well as misunderstanding and lack of respect (Darling, 1983). It is normal for parents of children with disabilities to face feelings of anxiety, distress, inadequacy and defensiveness (Dale, 1996). It is a highly difficult and painful process of personal adjustment for parents (Pugh and Russell, 1977). T's mother's avoidance of eye contact with the other parents and K's mother's insistence that she didn't know there was no cure for the condition reflects these emotions. These reactions may be a response to interactional and social experiences arising from having a disabled child.

Societal prejudices against disabled people are beginning to be overcome with the advent of more positive images of disability in the media and more assertive campaigning for equal rights by disabled people themselves. There is a major shift in many western societies away from a 'medical model' of interpretation of disability to an educational model linked to a human rights sociological approach (Wolfensberger, 1972). This implies that the professional must avoid assuming that all parents have the same attitudes to their children with special needs. In this study, it was seen that parents of ethnic minority groups like in K's case, were as individual and heterogeneous in their beliefs as parents from the western world (T's mother).

Equality of opportunity is important not only in relation to special needs but also to the culture from which a learner originates or with which they feel they are most affiliated. A person's culture can be quite separate from their religion. It was quite clear that both the schools involved in this study did not discriminate against any of the learners on grounds of their race and culture. But at the same time, additional efforts were not made by the therapists or the management to develop their cultural awareness of the concerned learners with cerebral palsy.

By analyzing the interview transcripts, it was evident that all three learners had the presence of a strong peer group. They felt that they were loved and accepted by all the children in school. Observations by the researcher strengthened this view. There were no evidences of stigmatization, victimization and rejection of these learners due to their special needs. Therefore their social acceptance in the school was not an issue to be improved upon. The support from their peers in terms of assistance in moving from one class to the other, help in getting organized in class as well as in group work in school was apparent. None of the learners hesitated in asking for assistance. This could be because a peer is less threatening to the learner and viewpoints in the same age group are better understood (Cole & Chan, 1990).

An observation to be discussed here (refer Appendix 50) is when, during the Science lesson, T quickly grasps her partners hand when she hears that they would be required to work in pairs. This is where feelings of self worth and esteem come in. Such instances were not prominent in the case of K and V, though in an interview it was mentioned that V does feel embarrassed at her lack of dexterity. Feelings of being 'excluded' and isolated were present in all three participants at varying levels. Such feelings if not tackled at an early stage are known to be a major reason for the development of psychosocial problems by the middle school years (Skinner & Piek, 2001). The role of the teacher and school counselor in avoiding such instances has to be stressed.

It is important to recognize that for some parents in the Indian-subcontinent, the likelihood that their daughter may not marry leads them to see education and training as essential in order to give financial independence (Raja, Boyce & Boyce, 2003). This may be the reason why the parents of V and K, put a lot of emphasis and pressure on academic performance. Equality of opportunity is important in relation to the culture from which a person originates as well as the culture in which he resides. Dubai has seen a gradual increase in the acceptance of people with special needs through increased awareness campaigns in the past few years. All this goes a long way in affecting the cultural climate where these pupils are educated.

5.2. Recommendations

Based on the findings of this study, this section provides an answer to the fourth research question that is:

What are the recommendations that can be made for the successful inclusion of pupils with cerebral palsy in mainstream elementary private schools in Dubai?

A summary of suggestions that would aid in overcoming the physical, and social-emotional issues addressed in section 5.1 is as follows:

The school management and staff must consider the learners with special needs as first and foremost learners and work to create the most appropriate educational environment for each individual.

Careful thought and consideration should go into the design and plan of the school. The school must aim at providing the 'least restrictive environment' to the learners with cerebral palsy. This also means physical changes in the building, as access becomes an issue, particularly for pupils in wheelchairs and using supportive seating and aids. Modified furniture, automatic or lightweight doors, unobstructed hallways go a long way in allowing safe access to the pupil with cerebral palsy to all parts of the school. The placement of the student in the class should be such that the learner is not distracted by outside activity and can also have access to the teacher, the board and the main door.

The presence of personal care attendants and proper infrastructure in the toilets and changing rooms or the construction of a hygiene suite goes a long way in preserving the dignity of female pupils with cerebral palsy.

All teachers involved in the teaching of pupils with cerebral palsy need to be given professional training in managing them by making use of differentiation and curriculum modification techniques. This would enhance participation of the

learners in all activities. If need be, teachers should be provided with an assistant. A study by Gaad & Khan (2007) indicated that teachers perceive additional training, support from administrators, and access to related services and resources as necessary in order to meet the needs of their students with special educational needs in the mainstream education setting.

Careful programming and skilled teaching can reduce the impact of negative factors such as poor concentration span, poor motivation, inefficient learning style, passivity, anxiety and task avoidance in the students (McCoy, 1995).

Out of the many qualities that are assigned to inclusion, participation is one of the first proposed, being an ideological and philosophical consideration as well as a practical necessity in the case of learners with cerebral palsy. In certain Physical Education sessions, activities should be carefully tailored to meet their needs. Help can be taken from support staff who can act as a guide or mentor on the field. Similarly in aquatics, use can be made of floatation devices to accomplish more aquatic skills. Teachers can make use of the Halliwick Water Confidence Model (Campion, 1985) or the Sherrill Water Fun and Success Model (Sherrill, 1998), which work on achieving levels of competency using adaptive swimming activities.

In Music, the learners could make use of color-coded music notes and could play instruments with extra handles or Velcro. Music and art may not be a part of these learners' lifetime career goals but they may become a focus for leisure time activities (Mastropieri, 2004).

Peer and cross-age tutoring can assist in enhancing literacy and mathematical skills (Cole & Chan, 1990). This is less threatening to the learner and viewpoints are better understood. This view is further strengthened by Vygotsky's (1978) insistence that most learning involves around social interaction and discussion.

The school must permit the pupils to make use of assistive technology in the form of laptops, calculators, electronic organizers, noise reduction headphones, speech synthesizers and writing grips. Provision of photocopies of the instructor's notes and extra time allotted to complete homework would go along way in reducing the work load for the learner with cerebral palsy.

Support services by the School Special Educator should be provided free of cost. Every pupil with cerebral palsy should have Individual Education Plans designed based on her individual needs and abilities. These should be monitored and evaluated at regular intervals in consultation with teachers, parents, the learner and concerned professionals/ therapists.

The school must liaise with specialist therapists and arrange for sessions to be held within the school campus during school hours. For example, on certain Physical Education days, the pupil can go in for a session of physiotherapy.

Culture is an important issue and needs to be given adequate attention in relation to learners with cerebral palsy.

Counseling, as described by the British Association for Counseling and Psychotherapy, takes place when 'a person occupying regularly or temporarily the role of counselor, offers and agrees explicitly to give time, attention and respect to another person'. This would help in the pupils explore their problems, make choices, manage crises and work through feelings of conflict (O'Regan, 2006).

Effective communication between the school and parent is of significant importance. An effort should be made to get attuned to the parent's perceptions and feelings. Developing empathy is an essential skill and ability for working in partnership with parents. Assistance could as beneficially be targeted at

changing the quality and structure of service provision and its interface with the families (Dale, 1996).

5.4. Avenues for Future Research

This section attempts to answer the fifth and last research question, that is:

‘What further research can be conducted in the field of inclusion of pupils with cerebral palsy in mainstream elementary private schools in Dubai?’

Research is any original and systematic investigation undertaken in order to increase knowledge and understanding and to establish facts and principles (University Research Council, 2008). Drew (1980) agrees that ‘research is conducted to solve problems and to expand knowledge.’ This research paper helped in the generation of knowledge that can further lead to new and substantial improved insights and/or the development of new materials, devices, products and processes.

The process of inclusion in private schools has begun and perhaps in the near future more pupils with cerebral palsy will be included in the mainstream schools. Based on this research, there is scope for further research to be conducted in this area. Rather than focusing on the medical aspect of the learners, which was predominant in the available literature, researchers can focus on other aspects. The researcher, for further research and debate, has suggested the following areas:

- Inclusion and Education for All – To what extent is this possible for learners with cerebral palsy?
- Barriers and facilitators to the inclusion of learners with cerebral palsy in mainstream schools.
- Awareness of cultural, social and racial issues and its impact on inclusion of learners with cerebral palsy in Dubai.

- The factors that determine the readiness of schools to admit learners with cerebral palsy.
- Teacher's attitudes towards inclusion of learners with cerebral palsy in mainstream schools.
- Conductive education-based intervention for children with cerebral palsy.
- Psychosocial issues that a learner with cerebral palsy faces in mainstream schools.
- Issues in providing training to school staff in techniques of managing learners with cerebral palsy.
- The cognitive perspective in the education of learners with cerebral palsy.
- Inclusion of learners with cerebral palsy in the United Arab Emirates – Policy and Practice.
- Assistive technology for learners with cerebral palsy in inclusive schools.
- The role of the Physiotherapist in the successful integration of learners with cerebral palsy in mainstream schools.
- Parental attitudes towards mainstreaming of learners with cerebral palsy in the United Arab Emirates.
- Assessment of the availability of community services within the mainstream school for learners with cerebral palsy in Dubai.

5.5. Conclusion

This study was conducted to look at the challenges faced by learners in an elementary mainstream setting. In the conduct of this study, physical, academic and social-emotional issues were focused upon. The issues were investigated and examined with the help of field-based observations, semi-structured interviews and a comprehensive analysis of documents. Through this, a number of problem areas in the existent scenario were highlighted. The key issues were then discussed and achievable recommendations were developed. While initial findings are promising, further research is necessary. Therefore, in keeping with the main findings of the paper, the researcher would like to stress again on inclusion being a process of making mainstream schools accessible in terms of curriculum and teaching, organization management, the physical environment, ethos and culture (Swain and Cook, 2001 cited in Ypinazar & Pagliano, 2004). Unless necessary changes are made, even an 'included' learner like the participants in this study, may feel the burden of school increasing and may feel 'excluded'. Their needs may be overlooked. Inclusive practices of schools in which learners with cerebral palsy have been admitted, require constant vigilance, updating and individualization. Consequently, the lives of the learners at school would be transformed and they would thrive in an unexpected way and lead more fulfilling lives. Schools have an opportunity to enlarge the world for students with disabilities and to extend a warm welcome to an inclusive community (Orelove, 1997).

Chapter 6

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“Oh, my friend, it's not what they take away from you that counts. It's what you do with what you have left.”

-Hubert Humphrey

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Chapter 7

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“If a child can’t learn the way we teach, maybe we should teach the way they learn.”

- Ignacio Estrada

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Chapter 8

Appendices

"Education is the key to developing an attitude of inclusion. The practice of inclusion provides the model of acceptance, belonging, participation, worth and dignity."

- Janis Jaffe-White