Inclusion of pupils with hearing difficulties in mainstream educational institutions: A comparative case study of a public and private school in the UAE

دراسة مقارنة بين مدرسة نظامية وخاصة في دولة الإمارات العربية المتحدة بشأن دمج طلبة لديهم ضعف سمعي

by

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Professor Eman Gaad

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ENGLISH ABSTRACT

The United Arab Emirates (UAE) is one of the countries to have acknowledged international community standards in an effort to reform education. The need for inclusive education was recognized by the Ministry of Education (MoE) in 1979, even though little attempts were made to incorporate the concept of inclusion into the regulatory frameworks of the country until 2006. The present investigation builds on a holistic approach to a successful inclusion in the short-term using a comparative case study of one public and one private educational institution. In addition, it focuses on the criteria of including children with hearing impairments. The study has as part of its objective to investigate the attitudes of teachers and parents towards the inclusion of children with hearing impairment, to investigate the perceived level of resource adequacy towards inclusion, and to investigate the perceived level of curricula adequacy towards inclusion. The study adopts a highly versatile a qualitative and quantitative (mixed research) approach. Results generally indicate that more positive results exist in public institutions as opposed to private institutions. This is true in all areas of attitudes, perceived results and perceived curricula adequacy. It is recommended that future investigations focus on a larger pool of institutions and disabilities. Future investigations can also focus on the long-term success criteria for inclusive education. It is also recommended that UAE adopts a continuous improvement approach to the adoption and development of inclusive education. A higher benchmark may be set in order to push private institutions to install adequate resources and curricula for inclusion. In the area of attitudinal change, the government must step up public education in this area to realize some improvement in attitude towards inclusion.

ARABIC ABSTRACT

الإمارات العربية المتحدة هي واحدة من الدول التي اعترفت بمعايير المجتمع الدولي في محاولة لإصلاح التعليم. وقد أقر بالحاجة إلى الدمج في التعليم من قبل وزارة التربية والتعليم في عام 1979، على الرغم من أن بذلت محاولات قليلة لإدراج مفهوم الدمج في المؤسسات التنظيمية في البلاد حتى عام 2006. ويستند التحقيق الحالي على اتباع نهج شامل للاندماج الناجح على المدى القصير باستخدام دراسة الحالة النسبية لمدرسة نظامية ومؤسسة تعليمية خاصة. وبالإضافة إلى ذلك، فإنه يركز على معايير دمج طلاب لديهم ضعف سمعي. وكانت للدراسة كجزء من هدفها التحقيق في مواقف المعلمين وأولياء الأمور نحو إدراج الطلاب الذين لديهم ضعف في السمع، للتحقيق في المستوى المتصور من كفاية الموارد من أجل الدمج، والتحقيق في المستوى المتصور في كفاية المناهج نحو الدمج. واعتمدت الدراسة تنوعا للغاية نهج نوعي وكمي (بحث مختلط). تشير النتائج عموما أن النتائج أكثر إيجابية موجودة في المؤسسات النظامية (العامة) على خلاف المؤسسات الخاصة. وهذا صحيح في جميع المجالات من المواقف، والنتائج المتوقعة، وبالنظر لكفاية المناهج. فمن المستحسن أن التحقيقات المستقبلية ستركز على مجموعة أكبر من المؤسسات والإعاقات. يمكن أن التحقيقات في المستقبل أيضا التركيز على معايير النجاح على المدى الطويل في التعليم الشامل. ويوصى أيضا أن دولة الإمارات العربية المتحدة تتبنى نهج التحسين المستمر لاعتماد وتطوير التعليم الشامل. قد تكون أرقاما قياسية من أجل دفع المؤسسات الخاصة لتثبيت موارد ومناهج أكثر ملائمة لإدراجها. في مجال تغير السلوكيات، يجب على الحكومة تكثيف التثقيف العام في هذا المجال لتحقيق بعض التحسن في تجاه الدمج.

DEDICATION

This work is dedicated to my family and all my loved ones. The support, encouragement, and motivation they have given me throughout my education are deeply appreciated.

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Firstly, I give thanks to Allah for this work. I am grateful for how far He has brought me. I thank my Husband for his enabling and supporting role in this and many other achievements in my life. I would like to thank my supervisor, Professor Eman Gaad of British University in Dubai for her time, dedication, patience, motivation, enthusiasm, and immense knowledge in support of this project.

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ABBREVIATIONS

BCSQ – Bender Classroom Structure Questionnaire

MoE – Ministry of Education

UAE – United Arab Emirates

UNCRPD – United Nations Convention on the Rights of Persons with Disabilities

UNESCO – United Nations' Educational, Scientific, and Cultural Organization

CHAPTER ONE: INTRODUCTION

The United Arab Emirates (UAE) is one of the countries to have acknowledged international community standards in an effort to reform education. The need for inclusive education was recognized by the Ministry of Education (MoE) in 1979, even though little attempts were made to incorporate the concept of inclusion into the regulatory frameworks of the country until 2006. Despite the delay in regulations, several attempts had been ongoing since 1979 by the Ministry of Education (MoE) through engagement of key stakeholders towards gathering knowledge and experimentation of the various strategies that may be utilized in taking care of students with special needs in the country.

It is essential to note that lack of action in the area of inclusion since the acknowledgement of the need for special education is not entirely exclusive to UAE but is also apparent in other countries around the globe. This assertion is true considering Gaad's (2004a) argument that the phenomenon of including students in mainstream education is only recent and remains unresolved with several attitudinal, curricula, and resource challenges.

1.1 Background of the study

The concept of inclusion is considered as one of the best practices that can be adopted for the benefit of children in their early education (Bennett, Deluca & Bruns, 1997). Inclusion is defined as catering to students with different ranges of intelligence and abilities in a regular classroom, and at the heart of the definition

lies the fundamental belief that all members of the learning community must be offered the chance to learn in a single classroom (Pijil, Meijier & Hegarty 1997; Roach 1995).

Several investigations have been conducted in the UAE as a country, particularly on the attitude of parents and teachers (Al Ghazo & Gaad 2004; Dukmak 2013) as well as general social orientation (Gaad 2001; Gaad 2004a; Gaad 2004b) towards the inclusion of students with special needs. The concept has become a global agenda with government and international agencies including those in the UAE (Dukmak 2013; Mitchell 2005). Significant measures have been put in place and these include regulations allowing all citizens employed by the government receive aid from the Ministry of Labour for children with disabilities (Bureau of Democracy, Human Rights, and Labour, 2014).

In addition to efforts in the region to achieve an all-inclusive educational curriculum, Dukmak (2013) asserts that little or no form of discrimination exist in the provision of employment and such related services in UAE. Finally, and more importantly, the government has put in place regulatory frameworks which include the Disability Act 2006 Federal Law Number 29 (Al Roumi 2008).

The latest regulations in UAE permit inclusion in both areas of public and private educational institutions. According to Bradshaw, Tennant & Lydiatt (2004), educational institutions in the country are required to put in place learning mechanisms in order to be able to retain students with special needs as part of mainstream students. Where educational institutions are unable to provide required

resources for inclusion such institutions are exempted from incorporating such practices related to inclusive education.

On this note, Jung (2007) and Elhoeris & Alsheikh (2006) agree that resources and attitudinal challenges remain major problems in the area of inclusive education in the UAE. Other studies including one by Al Zyoudi, Satwai & Dodin (2011) also supported this argument that attitudinal challenges and lack of resources are the main challenges of inclusion in the UAE. Ultimately, the challenges in inclusion lie in three main areas of attitude, resources, and curricula (Bricker, 1995). The present investigation builds on this holistic approach of a successful inclusion framework, through a comparative case study of two children with hearing impairments selected from a private and a public institution in the UAE.

1.2 Problem definition

The area of investigation of inclusive education has mainly focused on attitudes and perceptions of teachers, parents, and the general public. Other studies have however focused on the students themselves (Al Ghazo & Gaad, 2004; Dukmak, 2013; Elhoeris & Alsheikh 2006; Gaad, 2001; Gaad, 2004a; Gaad, 2004b; Jung 2007). As mentioned earlier, studies on UAE have highlighted challenges in the areas of attitudes, perceptions and resources adequacy (Elhoeris & Alsheikh, 2006; Al Zyoudi et al., 2011; Simpson, Spencer, & Warner 2009).

Theoretically, there has been a major focus on teacher attitudes as the main success determinant of inclusion without paying proper attention to a complete success framework in a single investigation, and for that matter with a focus on a unique

disability (Bennett et al., 1997). A research gap therefore exists and Bricker's (1995) tri-component model of short-term successful inclusion is used to critically evaluate in a comparative manner, a public educational institution and a private educational institution in the UAE.

The study adopts a versatile comparative methodological approach as recommended by Yin (2003) in the case study research strategy. The present investigation combines both quantitative and qualitative research approaches. The quantitative approach helped collect data with the help of a survey questionnaire administered to teachers and parents in the public and private educational institutions. The qualitative approach helped collect data with the help of semi-structured observation guide administered on two children with hearing impairment, one student was selected from the public institution and one from the private institution. All data were collected in the areas of the attitude, resources, and curricula underlying successful inclusion.

1.3 Research objectives

The main research objective is:

> *"to investigate the short-term successful inclusion of children with hearing impairment in mainstream education in UAE*"

The study seeks to achieve this main objective in a comparative evaluation of data and findings from UAE public and private educational institutions. Specifically, the following objectives are established:

I. To investigate the attitude of stakeholders towards the inclusion of children with hearing impairment in mainstream education in UAE public and private educational institutions.

II. To investigate the resource adequacy of UAE public and private educational institutions towards the inclusion of children with hearing impairment in mainstream education.

III. To determine the appropriateness of curricula installed in UAE public and private educational institutions towards meeting the inclusive educational needs of children with hearing impairment.

1.4 Research questions

The main research question of the investigation is:

"what is the state of short-term successful inclusion mechanisms installed for children with hearing impairment in mainstream education in UAE"

The above main question can be further divided into the following sub-questions:

I. What is the attitude of teachers and parents towards the inclusion of children with hearing impairment in mainstream education in UAE public and private educational institutions?

II. What is the level of resource adequacy of UAE public and private educational institutions towards the inclusion of children with hearing impairment in mainstream education?

III. What is the appropriateness of curricula installed in UAE public and private educational institutions towards meeting the inclusive educational needs of children with hearing impairment?

1.5 Rationale of the study

The rationale of the present investigation lies in the assertion that focusing on successful inclusion in a comparative manner would help unearth the complete set of elements that can be input to achieve successful inclusion. Successful inclusion here may exist within the confines of a particular disability or learning challenge. For this reason, the focus is on children with hearing impairment participating in mainstream education. The adoption of a comparative attempt is in an effort not to simply describe the state of inclusion in UAE but to provide insight as to the differences in perceptions and practices of public and private educational institutions regarding the success of inclusions.

One public and one private institution as case study firms were originally adopted to provide a comparative perspective of how successfully inclusion is carried out categorically depending on the educational institution. It is also important to mention that the definition of success was adopted from Bricker's (1995) tri-component model on how successful inclusion can be achieved in the short term; contribution to theory is therefore imperative.

It is essential to clarify that short-term (as opposed to long-term) measurement of inclusion was selected due to a number of justifications. The first of these is that most of the educational institutions in the country are within the short-term stage of

inclusion and have not realized the long-term stature. In addition, there was not enough time to investigate long-term successful criteria; these institutions are mainly public and the process of measuring long-term inclusion successful criteria is lengthy, complicated and require more time for data collection.

It must not be over-emphasized that the short-term success criteria amount to long-term success definition. In other words, a complete and highly objective view of immediate achievement of successful inclusion which can collectively lead to a long-term success.

1.6 Significance of the study

The significance of the present investigation may be identified in both areas of academia and practice. In the area of academia, the present study contributes valuably to the closing of the research gap identified by empirically proving a conceptual framework that can be used to create a successful inclusive atmosphere as argued by Bricker (1995). The study does not rely on only one aspect of the successful inclusive environment but assesses the association between resources, attitudes, and curricula, yet in a comparative approach using one public and one private educational institution.

Pertaining to significance in the area of practice of inclusive education, the present investigation proposes a model of inclusive education that can be adapted to establish and maintain a highly successful inclusive educational environment. The comparative analysis of public and private institutions helps draw attention to

deficiencies and comparative strengths of public versus private educational institutions in the UAE and Gulf Corporation Council (GCC) region.

1.7 Structure of dissertation

This dissertation is divided into five separate chapters. Chapter one presents an introduction to the investigation. It presents the background of the study, research problem, objectives, justification, significance and organization of the study. The second chapter reviews literature towards the establishment of the framework of reference used for the study. Chapter three elaborates on the methodological approaches to the study. The chapter presents the research design, population and sampling techniques, sources of data, data collection instruments and limitations encountered in the course of the study.

Chapter four presents the results and findings of the study. Findings are presented in accordance with the research questions to be answered. Chapter five discusses the findings in relation to secondary theoretical and empirical findings. Other interpretations and implications of findings are also presented. Finally, the chapter presents the conclusions and recommendations of the study. Key recommendations are offered to future researchers and other important stakeholders who include educational institutions within the United Arab Emirates. Other recommendations are offered to the MoH on how to ensure successful inclusion within the educational sector, with particular attention to children with hearing impairment.

CHAPTER TWO: LITERATURE REVIEW

Contemporary literature on the area of study is discussed in this section. Theoretical underpinnings of the study are discussed towards the formation of the conceptual framework that underlies the present investigation. A review of secondary theoretical literature is relevant so as to ensure that internal validity of measurement used for various variables is attained. It would also ensure that the foundation for empirical investigation is well laid based on theories that have already been established.

Regarding the content covered in this chapter, it commences with the discussion of the concept of inclusion, it then elaborates on the expectations and standards for successful inclusion such as the need for involvement of stakeholders, the need for adequate resources and curricula. Towards the final aspect of the chapter, key empirical review of investigations that informed the methodology and findings of the present investigation are presented.

2.1 Definition and concept of inclusion

Al Zyoudi et al. (2011) defines inclusion as an educational practice that assumes as its underlying principle the concept of social justice in advocacy of access to equal educational opportunities regardless of race, ethnic group, and most importantly disability. Al Zyoudi (2006) add that inclusion ensures that all students are offered the same opportunity and environment to learn whereas their educational needs are integrated into the general learning classroom, building on the abilities of the

students to assess their performance and not their inabilities. The concept is increasingly gaining acceptance and is being practised in many areas of the globe with an increased emphasis on the need to formulate curricula and instructions based on the abilities of students with special needs (Ivey & Reincke, 2002).

It is critical to mention that inclusive education as the concept sounds, does not imply the incorporation of every single student, regardless of disability, into mainstream education. The concept reasonably assumes that including severe cases of deafness, blindness, or any other disability with totally incapacitates the student from learning as regular students, would lead to high levels of inefficiency and ineffectiveness of mainstream education. This is supported by Bender, Vail & Scott (1995) that inclusive education constitutes incorporating students with mild disabilities in mainstream education. On this regard, there has been the need to alter mainstream teaching delivery systems to achieve successful inclusive education which can benefit both the special students and regular students.

2.2 Merits and demerits of inclusion

The point at which inclusion may be considered satisfactory still largely debated by educational professionals according to Kauffman, McGee & Brigham (2004) and Dukmak (2013) due to cost against social benefit evaluations. Abbott (2006) mention that any educational institution that intends to enrol students with special needs into mainstream classes must be able to meet high expectations increasing the required climate, remove any barriers and install a broad range of measurement of abilities and achievements; a high-cost proposition. Others including Ainscow

(1999) have observed inclusion as a mere acknowledgement of the need to install systems that cater for learners' diversity; a low-cost proposition.

Ainscow (2007) and Florain (2008) however established that the greatest challenge of inclusive education is taking care of the needs of diversified learners. Regardless of how the concept of inclusion is observed, effective implementation of it comes with a high level of costs and complexities which must be addressed efficiently. On the mention of costs and complexities, it is important to mention that inclusion has not entirely been supported in academia based on a common consensus.

Some sources have argued in favour of the concept as others strongly oppose on various grounds. Gaad & Khan (2007) on UAE strongly assert that inclusion benefitted both regular students and students with disabilities. They argue that special students are more capable of achieving individualized educational program (IEP) goals. Others, even though outdated including Jenkins, Odom & Speltz (1989) and Lord & Hopkins (1986) have concluded on similar results that inclusion helps prepare children for the real future state where the disabled humans live in harmony with the regular people. Mainly, arguments in favour of inclusion argue on social grounds that regular children are able to interact with their disabled peers so as not to look down on them in the future.

Other investigations have largely disagreed with the notion of inclusion and have argued that it is a waste of resources to customize the learning environment to conform to the needs of the minority when efficiency and festiveness can be achieved by grouping similar students in the same class. This opposition is supported by Cohen (1994) and Tornolillo (1994). It can be inferred that whereas

those who oppose inclusion observe the concept from an economic and utilitarian perspective, those in favour hold on to a social perspective.

2.3 Involvement of stakeholders in educational inclusion

It is largely agreed that the implementation of educational inclusion in mainstream classrooms is a very difficult and tedious task according to Mukhopadhyay, Menty & Abosi (2012). Those in favour of opposition have also raised such concerns (Cohen, 1994). Although the concept of inclusion has gained some attention in academic literature in recent times, it continues to pose serious challenges with regards to its implementation (Mukhopadhyay et al., 2012). Particularly, the concept demands the contribution and participation of parents, teachers, and even colleagues of the student with special needs. Dukmark (2013) argues that for success to be achieved in the adoption of inclusion in schools, a whole school and societal orientation in the form of positive attitude and culture towards the concept and the disabled students is mandatory.

Gaad (2004a) believes that attitude towards children must start with parents. Nonetheless, even though parents have usually not been able to spot any issue with their child concerning intellectual disabilities, Esdaile & Greenwood (2003) argue that continued care for children with intellectual disabilities often begin to stress the parents. This point in the direction that parents of students with special needs are also affected in many instances. Parents with disabled children have revealed lower rated of employment, larger family sizes, lower rates of social participation, and distress (Esdaile & Greenwood, 2003). According to Bennett et al. (1997), high

parent involvement is critical to the success of early childhood programs. When parents are involved in early interventions, students who experienced the contribution or help of parents were able to achieve high levels of improvements that students who did not have to the assistance of parents. Ultimately, parents exist within the immediate environment of children and have complex interrelationships which easily facilitated growth and intellectual development.

2.4 The special role of teachers towards inclusive education

The concept of inclusion has called for the need to educate and train teachers on the adoption of the right practices and attitude required for inclusive education. Based on this requirement, there has been a pedagogical shift in the preparation of teachers for mainstream education purposes (Al Zyoudi et al. 2011). There is the need to ensure that trainee teachers are more competent and prepared to handle the increasing and diversified needs of students. World organizations such as the United Nations' Educational, Scientific, and Cultural Organization, popularly known as UNESCO has acknowledged the need for versatile teachers for enhanced inclusive education. UNESCO (1994) has therefore specified that content on inclusive education be made a part of the teaching materials used for upcoming teachers so as to create some amount of preparedness of such teachers to handle students with diverse needs when they enter classrooms.

The area of teachers' attitudes towards inclusive education has largely been investigated by more than two dozen studies reviewed during the present study. These studies include Arif & Gaad (2008), Jung (2007), and Al Zyoudi (2006).

Even in the UAE, attention to the attitude of teachers has gained dominance in the literature (Al Ghazo & Gaad, 2004; Dukmak, 2013; Gaad, 2001). While most of these investigations observed the attitude of teachers, a few others investigated pre-service teachers' attitudes and these include Al Zyoudi et al. (2011) and McHton & McCary, (2007). Excessive attention in this area has helped establish that teachers' attitudes are a very important aspect of successful inclusion of students with disabilities; this conclusion is consistent with many investigations including Sharma, Forlin & Loreman (2006) and Al-Khatteeb (2004). This is right considering teachers and educational instructors are at the central point of the entire educational terrain.

It is important to mention that many of the investigations in this area have concluded that teachers are not supportive of the concept of inclusion despite the need for their support (Minke, Bear & Deemer 1996; Reiter, Schanin & Tirosh 1998; Al Zyoudi, 2006). Florian's (2012) study which was done in Scotland, and Zoniou-Sideri & Vlachou (2006) in the Greek context also reveal the unfavourable attitude of teachers towards including students with special needs in mainstream education. Most of these investigations where teachers did not entirely support the concept of inclusion agreed that teachers commend inclusion as a viable platform based on which ordinary schools can operate. They also agree that segregating students of similar learning abilities could be of help to these students so their special needs can be adequately addressed. A few other investigations in USA and Germany has realized a strong and positive attitudinal orientation towards inclusive education as mentioned by Al Zyoudi, (2006).

2.5 Factors influencing attitude of teachers towards inclusive education

Attitude has been defined by Al Zyoudi, (2006) as a person's disposition to act in a particular way towards an identifiable object. Generally, attitude may be considered as positive, neutral and negative (El-Ashry, 2009), they may also be considered as cognitive, effective, and behavioural (Al Zyoudi, 2006). The attitude of teachers towards inclusion is affected by a number of factors.

2.5.1 The nature and severity of disabilities

The nature and severity of disability have evolved as a major influencer attitude of teachers towards students. Forlin (1995) established that teachers tend to have a negative or a lower positive attitude towards students with intellectual disabilities and no physical disability. On the other hand, students with clearly physical disabilities attract better attitudes from teachers. Aside from Forlin (1995), more recent investigation including Al-Khatteeb (2004) have concluded on similar results that teachers treat students with physical disabilities better than students with intellectual disabilities. The nature and severity of students may also vary in relation to the individual perceptions of teachers. This particular assertion is based on Clouch & Lindsay (1991) findings that emotional behavioural needs of the students are most difficult to meet, followed by learning difficulties, visual impairment, and finally hearing impairment in that particular order.

2.5.2 Years of teaching experience

A number of investigations have concluded on a significant association between years of experience and attitude of teachers. Here, Clouch & Lindsay (1991) once again concluded that teachers with associated supportive inclusion attitude were

usually young teachers or had a few years of teaching experience. Attitude seems to get unsupportive as teachers increased in years or had more experience. Clouch & Lindsay (1991) findings were also similar to that of Forlin's (1995) that teachers with more than 11 years of experience least accepted inclusion even though those with less than 6 years of experience had a higher acceptance of inclusion.

These results have further proved consistent but the number of years that may be categorized as younger years of experience may differ. This assertion is backed by Leyser, Kapperman, & Keller (1994) that teachers with experience below 14 years had a more positive attitude towards inclusion even though Forlin's (1995) found a significant difference between below 6 years, and between six and 12 years. Ultimately, the attitudinal orientation of teachers varies based on years of experience.

2.5.3 Factors related to school

A few other investigations have established some association between factors related to schools and teachers' attitudes. Such studies include Schhorth, Moorman & Fulllwood (1997) and some of these items mentioned as related to schools include the extent to which teachers are allowed to initiate change in their lesson and the freedom offered to teachers to plan their lessons. Other factors are external but related to the school and these include the teaching conditions such as financial and non-financial rewards offered to the teachers, the status of the teacher within the larger society and the professional aspirations of the teacher.

2.5.4 Gender and grade level taught

Gender and grade level taught by the teacher has been investigated as having some association with attitudes towards integrating students with learning difficulties with mainstream educational children. Two investigations conducted in this area include Beh-Pajooh (1992) and Leyser et al., (1994). Generally, findings indicate that females have a more positive attitude towards inclusive education. Avramidis, Bayliss & Burden (2000) for instance found a positive association between attitudes and teachers who teach at the high school levels. Teachers in elementary and primary schools found it more difficult to accept integration of students with learning difficulties;

2.6 Programs and curricula for Inclusion

Many authors have argued that the concept of inclusion has increased the expectations of teachers, researchers, and education planners and this has led to debates surrounding the structural changes required in the preparation of inclusive program (Fisher, Frey & Thousand 2003; Kilgore & Griffin 1998). According to Arif & Gaad (2008) and Al Roumi (2008), in the UAE, the MoE is making considerable effort to train and educate administrators, teachers, and even parents about the purpose and benefits of inclusion.

These and other measures are in place in UAE to ease the overall acceptability of inclusion strategies in the country. Even though clear instructional strategies may be instituted, there is the need to ensure that teachers are making good use of these strategies for teaching purposes (Bender et al. 1995). In an investigation on the

implementation of effective instructions for students with learning disabilities, Bender et al. (1995) adopted the use of the Bender Classroom Structure Questionnaire (BCSQ) (Bender 1990; Bender 1992).

2.7 General rules for special education in UAE

The UAE's Ministry of Education Special Education Department published the general rules for the provision of special education programs and services in 2010. These guidelines issued covered both public and private educational institutions in UAE. The Special Education Department has as part of its aims the need to provide equal opportunities for education to all students regardless of disabilities, in accordance with the Federal Law No. 29/2006. The Department provides the appropriate working environment, by collaborating with all stakeholders including teachers and parents towards the provision of education to students with learning difficulties or disabilities (MoE, 2010).

The guidelines offer 8 different categories of special education including physical and health-related disabilities, visual impairment, speech and language disorders, autism spectrum disorders, emotional and behavioural disorders, intellectual disabilities, specific learning disabilities, and hearing impairment including deafness. Special programs are offered in all areas of these disabilities ranging from inclusion in regular classrooms with community-based support, with classroom-based support, with school-based support, or with resource room support.

It is important to mention that as part of the guidelines, specific duties and responsibilities of schools, teachers, and even parents have been clearly outlined.

The roles of specific persons within the educational institution range from the school principal, regular classroom teachers, basic education classroom teachers, subject teachers, assistant teachers to other people in specific roles. Relating to children with hearing impairment, the guidelines state special educational considerations which include ensuring that children are assisted with maintaining hearing aid, maintaining face-to-face contact with students when talking to them, speaking to students in a normal pace, avoiding noise, offering clarifications and instructions on the board, alongside other considerations (MoE, 2010).

2.8 Resources for inclusive education in UAE

In the UAE, educational policies are highly in alignment with the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) including the Optional Protocol aspect. Agreeing to the Optional Protocol of the UNCRPD and putting in place regulations around the same time, important structural changes within the educational system were mandated. The regulations ensure that free education is provided to people with special needs. It also ensures that the educational standards and resources are dedicated to the adoption of inclusive education.

In the year 2011 to 2012, a thorough inspection was executed by the MoE in an attempt to identify the status and critical avenue for development of inclusion in UAE schools (Belrehif 2012). It is important to mention that expectations were very low and that little structures in the form of resources were available in schools to enable them to take care of students with special needs. The study was conducted

on private sector educational institutions alone and realized that students with special needs as a percentage of total students were higher in the international platform (OECD, 2005) than in the UAE private schools.

Belrehif (2012) argues that the inability to provide required resources was the main reason why inclusion in private educational institutions in the UAE remained ineffective. The MoE provides licenses to private institutions that follow the curricula of UAE. Following applications for jobs by teachers, the MoH has to approve the list of prospective teachers prior to actual appointments. Even though the Ministry does not compel private schools to adopt inclusive education, it is a requirement for private educational institutions who go to the extent of accepting such students with learning difficulties to fully provide for such students as they were knowingly enrolled.

In addition to these measures, children with disabilities such as hearing impairments, multiple learning difficulties, and other intellectual challenges usually enrol in Special Centres even though some public and private schools have put in place measures to accommodate some of these students whose disabilities are not deemed as severe and can be managed alongside mainstream education (Gaad 2007).

In the area of legislation, the Federal Law No. 29/2006 was specially formed regarding rights of the people with special needs. The Law was activated to provide a guarantee of the provision of equal opportunities to people with disabilities. The Law cover all educational institutions, educational and vocational training centres and adult education. The Law provide grounds on which any student in need of

special attention may be included in regular classes or included in special classes. Article 13 and 14 of the Federal Law states the readiness of the Ministry of Higher Education and Scientific Research to co-operate with concerned authorities (including MoH) and other stakeholders to provide academic disciplines to people who need special attention.

The Ministry of Higher Education and Scientific Research conducts thorough investigations on various communication and teaching methods that can be used to teach students with different disabilities. Article 14 Federal Law No. 29/2006 especially specifies cooperation with families of disabled students towards the development of suitable customized strategies to handle any case of special education.

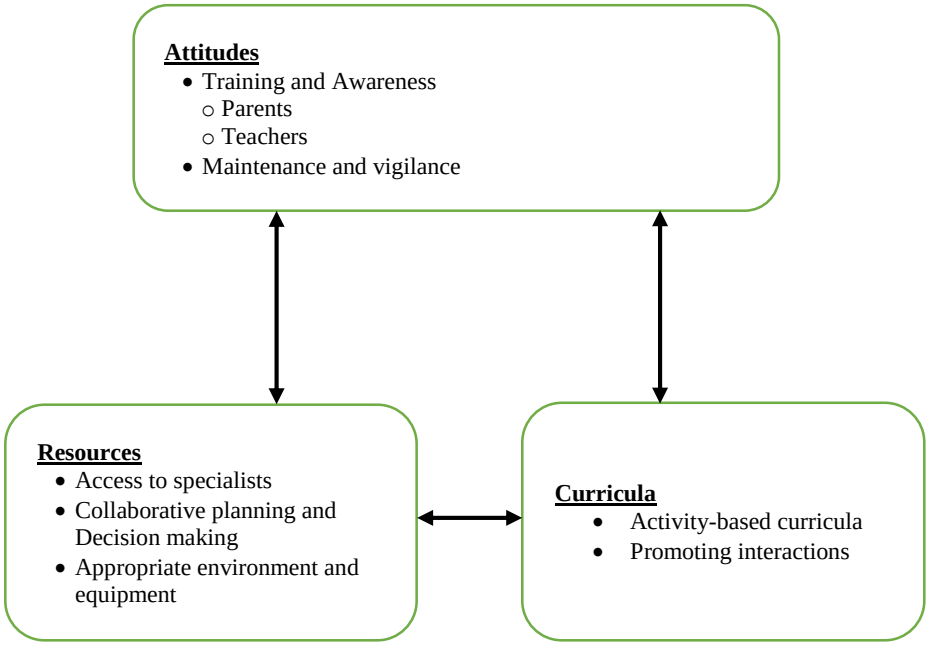
Finally, under Article 15 of the Law, the Specialized Committee in the education of people with special needs was formed to develop executive programs on ensuring equal opportunities for education, develop a systematic structure for the educational programs, organize al special needs matters, lay down policies for training and rehabilitation, and provide advise technical and educational assistance to all educational institutions.

2.9 The tri-component framework for successful inclusion

Many investigations have centred on one or more areas as key challenges encountered in an attempt to implement inclusive educational reforms. Abbott (2006) agrees that principal challenges in the adoption of inclusive behaviour are in areas of teacher education on inclusion, and identifying the important factors that

make inclusion works. Ainscow (2007) and Florian (2008) add that the greatest challenge in educational systems in an attempt to implement inclusive education is with regards to learners' diversity. Barriers to inclusion have been identified in three main areas of attitude, resources, and curricula as argued by Bricker, (1995) and supported by Bennett et al. (1997). Of particular concern is the assertion that inclusion often takes place at the conceptual level with key practical and empirical considerations neglected (Bricker 1995). The framework for the present investigation is presented in Figure 1.

Figure 1: Conceptual Framework for the Study



2.10 Empirical review of investigations on inclusion

Gaad (2004) explored the impact of culturally-derived attitudes on educational decisions and measures installed to enable inclusion of students with special needs. Considering the case of Egypt, UAE, and England, Gaad (2004) adopted a

quantitative approach to research, collecting data from both parents and teachers on specific attitudes. Findings from this particular investigation indicated that teachers in the UAE are highly knowledgeable of new trends and the recent surge of calls for an inclusive educational system.

In another study influential to the present study, Bennett et al. (1997) highlight that many investigations in the areas of attitude and resource availability adopt the use of survey data. This method dates back into several decades, considering the analysis of 28 investigations by Scruggs and Mastropieri (1996) showed that teachers' attitudes towards inclusion were thoroughly assessed between 1958 and 1995.

Dukmark (2013) investigated the attitude of regular classroom teacher's attitude towards inclusion in UAE schools. Unlike the other studies, Dukmark (2013) observed teachers' socio-economic characteristics associated with their respective attitude, and whether attitude had any correlation with the type of disability. Likewise, a quantitative approach was used with the help of survey questionnaire. Dukmark (2013) concluded that female teachers had a less positive attitude towards students with disabilities, when placement of students with special needs is viewed as outside of regular school, and finally when inclusion is concerning students with visual impairment.

Bradshaw (2009) adopted the use of quantitative approach with the help of 2 separate survey questionnaires to 250 teachers from schools across UAE. The first questionnaire examined teachers' attitudes towards inclusive education. The second questionnaire examined the stages of concern of the teachers by building on Hall

and Louks' concern questionnaire. The stages measured include awareness, informational, personal, management, consequence, collaboration and refocusing. Demographics served as a platform for a comparative analysis of data. It was concluded that teachers lacked special education training and that most of the teachers were only in a state of awareness without much concern for inclusive education.

More recent studies in a similar area which explored hearing impairment and inclusion include Rose (2002) and Prakash (2012). Prakash (2012) focused on the attitude of teachers towards children with hearing impairment building on the instrument of Galis & Tanner (1995). Prakash (2012) selected 100 participants for the study and measured five main categories of management, gender, level of teaching, experience, and qualification. Findings were analysed with the help of descriptive statistics and mean comparisons. A positive attitude was realized among teachers in government institutions, female teachers, teachers at the primary level, more experienced teachers, and teachers with higher qualification.

One particular study which in many ways resembles the present study in terms of the methodological approach is Kozleski & Jackson's (1993). Bennett et al. (1997) agree that combining case study together with a survey research methodology would help provide an in-depth understanding of success factors including attitudes and resources required which are related to specific forms of disabilities. Bennett et al. (1997) combined the quantitative and qualitative approaches in that particular order where the participants who returned questionnaires were randomly selected for an in-depth interview.

Bennett et al. (1997) combined both parents' involvements and teachers' perspective as included in the present investigation. Findings proved that parents perceived a higher degree of involvement and had a higher attitude score towards inclusion than teachers. The instruments used by Bennett et al. (1997), Giles & Tanner (1995) and Prakash (2012) informed the present investigation. As adopted by the present investigation, the case study is combined with a survey in a comparative approach of private and public educational institution. The combination of a qualitative and quantitative approach is used in the present investigation as evident in Bennett et al. (1997).

CHAPTER THREE: RESEARCH METHODOLOGY

Key areas of the research methodology are presented in this chapter. It may be recalled that the present study is centred on the inclusion of children with hearing impairment in mainstream educational institutions by comparing two case studies of a public and private school in the UAE. The study also has as its aim "the identification of how successful educational inclusion may be achieved in UAE private and public educational institutions taking a special case of two children with hearing impairment". A multiple case study in a comparative attempt may be inferred from the very title of the study.

A mixed research approach was adopted by combining both qualitative and quantitative methodological approached. Combining these approaches was important to permit the undertaking of an objective study into what successful inclusion entails. A mixed method was important considering the need to thoroughly collect data using the case study research strategy. Yin (2003) has argued that case studies permit the use of versatile approaches to data collection and analysis. In addition, combining a qualitative and quantitative methodology would help collect rich data for analysis whereas covering the weakness of each approach over the other (Saunders, Lewis & Thornhill 2012).

3.1 Research strategy

The research strategies of other studies in similar areas of study were closely evaluated. Such studies include the Anati (2012), Bennett et al., (1997), Bradshaw

(2009), Al Zyoudi et al., (2011), and more importantly Kozleski & Jackson (1993). As mentioned earlier, the present investigation adopts a mixed methodology. A dual case study of a private educational institution and a public educational institution are used. The attitude of teachers and parents, resources provided by these intuitions, and finally one child with hearing impairment from each institution, serve as key areas of comparison within these two institutions. The study focuses comparison of attitudes, resources, and students in all areas of the conceptual framework.

3.2 Profiles of children with hearing impairment

The profiles of the two children with hearing impairment are presented below:

3.2.1 Profile of child 1 in the private school

AH is a boy who is 9 years old. He is in grade three and this clearly implies that he is older than his year group. AH studies in an international school that follows high international standards in their educational system. The school applies inclusion system as they have several students with physical disabilities and learning difficulties. AH looks like a typically developing child, he is friendly and likes to interact with his friends and classmates. He was born with some serious hearing problems so he uses a hearing aid which helps him cope with his hearing impairment.

This hearing impairment affected his early learning capabilities as it was not diagnosed very early. It kept him behind his peers for a couple of years until this problem was discovered and measures were taken to address this challenge. Due to

AH's medical problem, AH's parents did not have any other children and he has remained the only child of his parents. Since grade one, AH had learning difficulties, especially in literacy and numeracy. The school administered a general learning assessment in which he obtained a low score; further examination led to the formal identification that AH has a learning difficulty.

3.2.2 Profile of child 2 in the government school

KD is a 10 years old girl who was originally born with sensorineural hearing loss. She is currently in grade 5 and attends a government school in UAE. Due to these challenges experienced by the subject, she was held back a year at school and was unable to progress academically with her peers. Even though KD is examined to have a functional speech production system; the impairment of the auditory system from birth has caused speech distortions and speech impairment. It is observed that KD's ability to hear is reasonably improved after cochlear implantations and other hearing aids.

The cochlear implantation is a complex surgical procedure that is carried out to implant an "electronic device into the ear to bridge dysfunctional inner ear and transmit electrical impulses to the auditory nerves" (Jecmenica & Bajec-Opancina, 2014, p. 887). This device helped KD's ear collect sound waves transfer them to the brain for interpretation. Other auditory devices may be worn outside the ear in replacement of surgical implantation and can cost up to $100,000 per piece. Even with the use of such devices, hearing is slow and usually difficult (Orzan & Murgia, 2007).

3.3 Population and participants of the study

As defined by Sekaran (2003) the population of the present investigation represents all educational institutions in UAE out of which the two case study institutions were selected. According to Creswell (2009), a mixed approach to research may adopt the use of two or more samples for empirical investigation; one for the quantitative investigation and the other for the qualitative investigation. The parents and teachers (including non-teaching staff and school administrators) of the case study institutions are sampled for the quantitative study, whereas two children with hearing impairments are sampled for the qualitative investigation.

A total of 90 teachers and parents are selected from each institution; about 45 teachers and 45 parents, making a total of 90 respondents, are each selected from the public and private institutions. Ultimately, a total of 180 respondents (n=180) was used for the quantitative aspect of the study. The convenience sampling technique was used to select all participants and attempts were made to have an equal number of teachers to parents (45/45) from each institution.

For the qualitative aspect, a single child with hearing impairment was selected from the private institution and another from the public institution. The purposive sampling technique was used based on the premise that children must have a hearing impairment and must be attending the same class with other normal students.

3.4 Sources of empirical evidence

Primary and secondary data sources represent the two main categories of sources which serve empirical evidence for any particular study (Sekaran, 2003). The present study combines both primary and secondary data sources for empirical evidence. Primary data sources include the teachers, parents, students with disabilities, and schools' observable environment. Secondary data sources include the performance reports of the students and other school archives. Secondary data also include previous tests conducted on the students by the schools. Data from primary data sources were collected with the help of the questionnaire. Other primary data sources (students and school's environment) was collected with the help of an observation guide.

3.5 Data collection instruments

It may be observed at this point that three main data collection instruments are used for the collection of empirical data from the present investigation; the use of survey questionnaires for teachers and students (Appendices 4 and 5) for the quantitative sample and the use of a semi-structured observation guide (Appendix 6) for the qualitative sample. All instruments were adopted from secondary empirical investigations. The survey questionnaires were adopted from surveys used in previous studies which measured teachers' and parents' attitudes towards inclusion of children with hearing impairment (Al Zyoudi et al. 2011; Bender et al. 1995; Bradhaw 2009; Bennett et al. 1997; Giles and Tanner, 1995; Prakash 2012). Key

items used for the two separate questionnaires are presented in Table 3.1 and Table 3.2.

Table 3.1: Items used for teachers' survey questionnaire

S/N	Dimension / Items	Source
Teachers' Attitude towards children with hearing impairment		
Attitude Towards Parent's Involvement		
1	Parents as a valuable resource in teachers' efforts	Bennet et al. (1997)
2	Parents willingness to volunteer to spend time in the classroom	Bennet et al. (1997)
3	Knowledge sharing with parents on how inclusion can work	Bennet et al. (1997)
4	Challenges communicating effectively with parents	Bennet et al. (1997)
5	Involvement of parents in setting IEP goals	Bennet et al. (1997)
6	Parents difficult to work with	Bennet et al. (1997)
General Attitude Towards Inclusion		
7	Inclusion benefits regular children	Bennet et al. (1997)
8	Inclusion represents a positive change in our education system	Bennet et al. (1997)
9	Disable children included to the greatest extent possible	Bennet et al. (1997)
10	Severe disabilities must be excluded from regular students	Bennet et al. (1997)
Feasibility of Inclusion		
11	Disability aides in the classroom is distracting	Bennet et al. (1997)
12	Individualizing instruction is too difficult	Bennet et al. (1997)
13	Difficulty to include some children	Bennet et al. (1997)
14	Meeting all the needs of a child is often not feasible	Bennet et al. (1997)
Confidence in Ability to Carry out Inclusion		
15	Skills to help children with and without disability	Bennet et al. (1997)
16	Knowledge base on finding information about inclusion	Bennet et al. (1997)
17	Need help of the other team members for successful inclusion	Bennet et al. (1997)
18	Feel comfortable using usual teaching methods and style when children with hearing impairment are in my classroom	Bennet et al. (1997)
19	support staff to help make the inclusion of disabled children	Bennet et al. (1997)
20	Skills and resources to adapt materials for disabled children	Bennet et al. (1997)
21	Additional training requirement for inclusion	Bennet et al. (1997)
22	Lack sufficient information about how to include children	Bennet et al. (1997)
School Resources for Children with hearing impairment		
1	School rules and regulations on inclusion of students	Bricker, (1995)
2	School effort to ensure effective inclusion	Bricker, (1995)
3	School resources and equipment within the classrooms	Bricker, (1995)
4	Measures and facilities outside the classroom	Bricker, (1995)
5	An appropriate environment good for inclusive education	Bricker, (1995)
6	Availability of specialists	Bricker, (1995)
7	Presence of collaborative planning and decision making	Bricker, (1995)
8	Overall, my school has installed adequate resources	Bricker, (1995)
Curricula for Children with Hearing Impairment		
1	Curricula cover meaningful activities	Bricker, (1995)
2	Promotion of student genuine participation in program activities	Bricker, (1995)
3	Room for appropriate informal methods	Bricker, (1995)
4	Promotion of Interaction among children	Bricker, (1995)
5	Overall effectiveness of curricula	Bricker, (1995)

Prior to presenting the following items on the teachers' questionnaire, and immediately after the demographics which makes the first section of the questionnaire, data were collected on key teacher characteristics to aid analysis. These measures of teachers' characteristics were collected from Bradhaw (2009) and included questions whether teachers had special education qualifications, whether or not they had ever taught children with special needs, the location of classes where children with special needs were taught, the perceived level of special education in the UAE and the area of inclusion perceived as most difficult to include in the regular classroom.

The survey questionnaire for the teachers shared similar items with the teachers' instrument particularly with regards to general attitude towards inclusion, resources for children with hearing impairment, and curricula (Table 3.2).

Table 3.2: Items used for parents' survey questionnaire

S/N	Dimension / Items	Source
Parents' Attitude towards inclusive education		
Relationship with team members		
1	Overall relationships with my child's teachers	Bennet et al. (1997)
2	Acknowledgement of input from teachers	Bennet et al. (1997)
3	Effectively communicate with teachers in the schools	Bennet et al. (1997)
4	Intimidation during IEP meetings	Bennet et al. (1997)
5	Experience working with teachers	Bennet et al. (1997)
General Attitude Towards Inclusion		
7	Inclusion benefits regular children	Bennet et al. (1997)
8	Inclusion represents a positive change in our education system	Bennet et al. (1997)
9	Disable children included to the greatest extent possible	Bennet et al. (1997)
10	Severe disabilities must be excluded from regular students	Bennet et al. (1997)
School Resources for Children with hearing impairment		
1	School rules and regulations on inclusion of students	Bricker, (1995)
2	School effort to ensure effective inclusion	Bricker, (1995)
3	School resources and equipment within the classrooms	Bricker, (1995)
4	Measures and facilities outside the classroom	Bricker, (1995)
5	An appropriate environment good for inclusive education	Bricker, (1995)
6	Availability of specialists	Bricker, (1995)
7	Presence of collaborative planning and decision making	Bricker, (1995)
8	Overall, my school has installed adequate resources	Bricker, (1995)
Curricula for Children with Hearing Impairment		
1	Curricula cover meaningful activities	Bricker, (1995)
2	Promotion of student genuine participation in program activities	Bricker, (1995)

3	Room for appropriate informal methods	Bricker, (1995)
4	Promotion of Interaction among children	Bricker, (1995)
5	Overall effectiveness of curricula	Bricker, (1995)

For the observation guide, key areas of curricula, resources, attitudes, and other requirements necessary to help children with hearing impairments improve were adopted from Abraham and Gram (2010), Tissot (2013) and most importantly BC School Superintendents Association (2009). Key areas present on the data collection instruments include those presented in Table 3.3.

Table 3.3: Items used for parents' survey questionnaire

S/N	Attitude Observation	Student observation and Resources Assessments	Student Curricula assessment
1	Parent Letter and formal processes	Learning Strengths	Adaptations Checklist
2	Parent IEP Input Assessment	Learning Challenges	Learning Assistance and Classroom supports
3	Family Goal Setting	Classroom observation	In-Class Work
4	Teacher-Parent collaboration	Outside Class observation	Student Learn best when
5	Contribution to self-advocacy	Student self-advocacy	Meaningful Routines
6	-	Tools for collaboration	Multi-Subject Matrix
7	-	-	IEP Matrix: Strategies to Support
8	-	-	What works for teachers and parents
9	-	-	Favourite and effective strategies for students

3.6 Data collection administration

In order to collect data from the teachers, it was first and foremost important to gain permission to collect data from the school authorities. Permission was granted from the public education institution after a bureaucratic and formal request from school authorities. Formally this would not be possible for researchers who have little or

no ties with the institution but permission was granted since the researcher is an employee or faculty member of the public institution.

A documented and likewise bureaucratic formalities were also necessary to gain access to data in the private institution. Generally, even though access to data was quite bureaucratic, it was possible due to ties the researcher shares with the case study educational institutions. Several trips were made to the two institutions over a period of request for permission and actual data collection. Primary data collection occurred over a period of 2 to 3 weeks in accordance with the timetable presented in Appendix 1.

The questionnaires were personally administered to teachers and parents by the researcher. The survey participants, mostly the teachers, requested to complete the instrument by themselves on the spot or requested the researcher to pick it up later. The researcher mostly assisted the parents to complete their questionnaires. Even though the questionnaire was only written and printed in the English language, there was the need to asset parents by reading in the Arabic language in order to permit understanding and appropriate response. All areas of observation of students and institution were undertaken personally by the researcher. A semi-structured observation guide was used in order to permit recording of other cues that were not originally intended but relevant to the analysis.

3.7 Data analysis

Data analysis is separated into two main parts. Quantitative data analysis and qualitative data analysis as recommended by Creswell (2009), Creswell et al.

(2003), and Tashakkori & Teddlie (1998). The concurrent triangulation mixed method ensures that both qualitative and quantitative data are collected and analysed separately. Both results were however brought together for interpretations before establishing conclusions for the research objectives (Figure 2).

Figure 2: Concurrent triangulation mixed research design (Creswell et al. 2003).

3.7.1 Quantitative data analysis

Quantitative data collected is entered into IBM SPSS Statistics version 21 for quantitative analysis. The use of Microsoft Office Excel 2016 also helped present findings in organized and more presentable manner. Dancey & Reidy (2008) and Kinnear & Gray (2007) argue that the use of SPSS for quantitative analysis is highly acceptable in academic work. Morris (2003) and Curwin & Slater, (2007) also argue that the support of Microsoft Office Excel is highly recommended.

Independent sample t-tests are used to test the differences between the mean response from the private and public schools, and from the teachers and parents, whether or not perceptual differences are statistically different. The test for correlation is conducted to assess the existence of statistically significant associations between resources, attitudes, and curricula.

3.7.2 Qualitative data analysis

Qualitative data is analysed by using the template approach as recommended by King (2004) and defined by Saunders et al., (2012). Template analysis permits the listing of codes and categories that represent important themes revealed from the data collected. The template approach helped group and classify data collected through observation of the student into important themes for narration.

The template quantitative approach to analysis permitted the categorization of data into the various areas of the framework and discussed accordingly. Since the same constructs were used in both the quantitative and qualitative investigations but from varied perspectives, the observation helped contribute significant findings to the overall objectives of the investigation. Ultimately, qualitative data helped reinforce the validity of data collected from teachers and parents by collecting data on the students themselves through observation.

3.8 Validity and reliability

In order to ensure that a high level of validity is attained, it was important to embark key variables of the study with theoretical and empirical evidence. This ensures that the study is conducted based on theories that have already been established in the area of study. Internal validity was therefore achieved based on a review of the literature surrounding the area of study, whereas external validity was achieved by discussing the findings of the study in the context of other empirical investigations that have been conducted.

As mentioned by Robson (2002), discussing the findings of an investigation in comparison to other empirical investigations by elaborating on the implications of the findings help establish external validity. In the area of reliability, the use of IBM SPSS Statistics proposed by Dancey & Reidy (2008) and Kinnear & Gray (2007) helped ensure that error is reduced to a minimal level. The use of internal consistency measured using Cronbach's Alpha, recommended by Nunnally (1978) was used to examine the reliability of only the survey questionnaire and not the observation guide.

3.9 Limitations and ethical considerations

An important limitation in the area of the study includes the time factor. Completing the investigation in a single academic calendar proved highly challenging as the researcher had to combine the investigation with her usual job and work activities. The observation, in particular, led to significant delays in completing the study despite the adoption of a timetable with set milestones (Appendix 1). Another challenge that was anticipated was with regards to access to data considering both the private and public educational institutions operate under strict security procedures. After a serious of bureaucratic procedures, and ensuring that all security measures are met, the school principals agreed to the investigation. A letter from the MoH was required to allow access to data within the institutions.

It is critical to note that investigation on students with disabilities may have some ethical connotations. It was therefore critical to conceal the identities of the students, teachers, parents, and the schools. In addition to this, no form of data was

collected without the permission of the participants; an information sheet and informed consent form were submitted to all participants prior to data collection. Where children, as the two students observed, were involved, the parents of the children and their school guardians had to approve data collection. The information sheet and informed consent form are attached in Appendix 2 and 3 respectively.

CHAPTER FOUR: RESULTS AND ANALYSIS

The results and findings of the study are presented in this chapter. Empirical evidence was collected with the help of the two survey questionnaires and the semi-structured observation guide. The chapter commences with a presentation of key demographics of the study particularly relating to the qualitative data collection. It then continues to elaborate on the three main research questions of the study by presenting the results and findings in these areas. This section is relevant so as to ensure that the research questions of the study are answered towards the overall aim of the study which seeks to identify the state of successful inclusions implementation for children with hearing impairment in private and public institutions in the UAE.

4.1 Demographics and data summary

It may be noted that two main demographics were recorded; that pertaining to the teachers and that pertaining to the parents.

4.1.1 Teachers' sample characteristics

A total of 45 teachers wear each selected from the private and public institution. Overall teachers' demographics (Table 4.1) indicated that out of the total of 90 teachers from both public and private schools, 52 (57.8%) were male with the remaining 42.2% were female. The highest age range was those between 35 to 44; these respondents accounted for 41 (45.6%) of total respondents followed by those aged between 25 to 34 (20%). A total of 59 (65.6%) teachers interviewed had

completed the university or had a 1st degree, 26 (28.9%) of them had post-graduate degrees or above with only 5 (5.60%) respondents of them had only completed high school or less. A close assessment of teachers with high school degree or less revealed that all five respondents are part of the non-teaching staff.

Further analysis of the demographics revealed that the greater category of them was of Non-Arab origin (41 respondents representing 41.6%). This was followed by 38 (42.2%) expatriates of Arabic origin and 11(12.2%) Emirati. Finally, 55 (61.1%) respondents had less than 10 years of experience. The grade which recorded the highest number of teachers was the 12th grade (14 respondents representing 15.6%); the lowest number of respondent's category in this area were in KG recorded was 4 respondents for KG, third, fourth, and seventh grades.

Table 4.1: Demographic Statistics of Teachers

Category	Items	Frequency	Percent
Gender	Male	52	57.8
	Female	38	42.2
Age	15-24	6	6.70
	25-34	18	20.0
	35-44	41	45.6
	45-54	15	16.7
	55 and above	10	11.1
Education	High School or less	5	5.60
	University or 1st Degree	59	65.6
	Postgraduate or above	26	28.9
Nationality	Emirati	11	12.2
	Expatriate (Non-Arab Country)	41	45.6
	Expatriate (Arab Country)	38	42.2
Years of Experience	<5 years	28	31.1
	5-10 years	27	30
	11-15 years	12	13.3
	16-20 years	9	10
	>20 years	14	15.6
Grade Level Currently Taught	KG	4	4.4
	1	7	7.8
	2	5	5.6
	3	4	4.4
	4	4	4.4
	5	7	7.8
	6	7	7.8

	7	4	4.4
	8	9	10.0
	9	7	7.8
	10	6	6.7
	11	7	7.8
	12	14	15.6
	Non-teaching	5	5.6
	Total	90	100

Table 4.2 further presents the characteristics of the teachers who participated in the study. As the table illustrates, 44 (50%) of them had no qualification specifically relating to training and development in special education; 17 (18.9%) of them had special education training as part of their bachelors' degree; 14 (15.6%) of them had training in this area as part of theirs a masters; 8 (8.9%) had a diploma course and 6 (6.7%) had a PhD qualification in special education training. Even though about one-half of the teachers had some training and special education needs, only 37 (41.1%) had actual experiences in teaching students with special needs.

Out of those with experience, only 7 of them had gained this experience in the regular classroom. Many of the teachers (88.8%) believed that the special education in the UAE is either at the satisfactory, developing or advanced level. Finally, on the most difficult area of inclusion in the regular classroom, learning disability recorded 40 (44.4%) responses, intellectual disability recorded 22 (24.4%) responses, physical disability recorded 15 (16.7%) responses, behavioural disorders recorded 10 responses, and 3 of the teachers had nothing to say on the issue.

Table 4.2: Teachers' Special Education Qualification and Experiences

Category	Items	Frequency	Percent
Special Education Qualification	PhD	6	6.7
	Masters	14	15.6
	Bachelors	17	18.9
	Diploma	8	8.9
	Course	11	12.2
	No Qualification	34	37.8
Location of Classes where children with special needs were taught	Regular Classroom	7	7.8
	Special Class at a Regular School	18	20
	Special School	6	6.7
	Other	6	6.7
	Never taught special needs	53	58.9
The level of Special Education in UAE	Advanced	10	11.1
	Developing	31	34.4
	Satisfactory	39	43.3
	Non-Existing	7	7.8
	N/A	3	3.3
What area of inclusion is most difficult to include in the regular classroom?	Learning Disability	40	44.4
	Intellectual Disability	22	24.4
	Physical Disability	15	16.7
	Behavioural Disorders	10	11.1
	N/A	3	3.3
	Total	90	100

4.1.2 Parents' sample characteristics

As presented in Table 4.3, the majority of parents interviewed were females; 48 respondents representing 53.3% of the total of 90 parents. Most of the parents, 34 (37.8%) of them were aged between 35-44. About 78% of the parents had either a high school certificate or a 1st-degree certificate. Most of the parents were expatriates of Arabic origin (52.2%) with the lowest nationality being the UAE Local at 20% of the total. The lowest category of age group was less than years whilst the highest category of child age group was 15 to 18 years. Finally, data on

grades of parents' wards were collected; responses were dispersed among the grades with the highest group, grade 12 recording 11 (12.2%) respondents

Table 4.3: Demographic Statistics for Parents

Category	Items	Frequency	Percent
Gender	Male	42	46.7
	Female	48	53.3
Age	Less than 24	16	17.8
	25-34	17	18.9
	35-44	34	37.8
	45-54	13	14.4
	55 and above	10	11.1
Education	High School or less	36	40
	University or 1st Degree	34	37.8
	Postgraduate or above	20	22.2
Nationality	Emirati	18	20
	Expatriate (Non-Arab Country)	25	27.8
	Expatriate (Arab Country)	47	52.2
How old is your child?	Less than 2 years	3	3.3
	3-6 years	13	14.4
	7-10 years	11	12.2
	11-14 years	16	17.8
	15-18 years	24	26.7
	19 years and above	23	25.6
Grade Level of child	KG	2	2.2
	1	7	7.8
	2	8	8.9
	3	3	3.3
	4	6	6.7
	5	8	8.9
	6	8	8.9
	7	8	8.9
	8	10	11.1
	9	8	8.9
	10	3	3.3
	11	8	8.9
	12	11	12.2
	Total	90	100

4.2 Attitude towards inclusion of children with hearing impairment

The study sought to investigate attitude towards children with hearing impairment; both perceptions of teachers and parents were sought using key items for

measurement of attitude presented as part of the methodology of the study in areas of attitude towards parents' involvement, general attitude towards inclusion, feasibility of inclusion and the confidence in the ability to carry out inclusion. Data pertaining to teachers' attitude are presented followed by data on parents' attitude. The existence of statistically significant differences between attitudes of teachers and parents in the two case study institutions are also conducted.

4.2.1 Teachers' attitude towards inclusion

According to data presented in Table 4.4, overall positive teachers' attitude exists towards the inclusion of children with hearing impairment. The highest attitude score was within the dimension of teachers' attitude towards teachers' involvement (4.77) followed by the general attitude towards inclusion (4.75). Teachers valued the most sharing of knowledge with parents as a key element necessary for the management of the inclusion of children with hearing impairment.

A comparative evaluation of the significance of differences between means of the private and public institution was also conducted. In general, a more positive attitude towards exists in the public institution compared with the private institution; mean differences for all items used to measure attitude were negative (Table 4.5). In addition, statically significant differences exist in 10 out of 22 items used for measuring attitude and colour coded in Table 4.5; this means public institution attitude were statistically higher than private teachers' attitudes in these areas. Other 12 remaining variables where the public institution teachers' attitude were higher than the private ones were not statistically significant.

Table 4.4: Teachers attitude towards inclusion: Descriptive Statistics

Variable/Dimension		Mean	Std. Dev	Var.	Skew-ness	Kurt-oses	Range
Attitude Towards Parent's Involvement (Overall Mean = 4.77)							
1	Parents as a valuable resource	4.79	1.659	2.753	-0.682	-0.473	6
2	Parents willingness to volunteer	4.98	1.607	2.584	-0.627	-0.523	6
3	Knowledge sharing with parents	4.73	1.708	2.917	-0.652	-0.565	6
4	Challenges communicating	4.74	1.719	2.956	-0.542	-0.705	6
5	Involvement of parents	4.69	1.577	2.486	-0.612	-0.497	6
6	Parents difficult to work with	4.67	1.729	2.989	-0.575	-0.708	6
General Attitude Towards Inclusion (Overall Mean = 4.75)							
7	Inclusion benefits regular children	4.81	1.586	2.514	-0.719	-0.385	6
8	Positive change in our education	4.77	1.636	2.675	-0.717	-0.434	6
9	Disable children must be included	4.68	1.741	3.03	-0.561	-0.723	6
10	Severe disabilities be excluded	4.72	1.696	2.877	-0.668	-0.547	6
Feasibility of Inclusion (Overall Mean = 4.74)							
11	Disability aides is distracting	4.69	1.577	2.486	-0.612	-0.497	6
12	Difficult to Individualize instruct.	4.67	1.729	2.989	-0.575	-0.708	6
13	Difficulty to include children	4.81	1.586	2.514	-0.719	-0.385	6
14	Meeting special student needs	4.77	1.636	2.675	-0.717	-0.434	6
Confidence in Ability to Carry out Inclusion (Overall Mean = 4.72)							
15	It helps all children	4.68	1.741	3.03	-0.561	-0.723	6
16	Possess Knowledge base	4.67	1.729	2.989	-0.575	-0.708	6
17	Need help of team for success	4.81	1.586	2.514	-0.719	-0.385	6
18	Feel comfortable	4.62	1.713	2.934	-0.528	-0.693	6
19	support staff	4.69	1.577	2.486	-0.612	-0.497	6
20	Skills and resources to adapt	4.67	1.729	2.989	-0.575	-0.708	6
21	Additional training requirement	4.81	1.586	2.514	-0.719	-0.385	6
22	Lack sufficient information	4.77	1.636	2.675	-0.717	-0.434	6

Table 4.5: Teachers Attitude towards children with hearing impairment: Public versus Private

Variable/Dimension		F	Sig.	t	df	Sig. (2tail)	Mean Diff.
Attitude Towards Parent's Involvement							
1	Parents as a valuable resource	0.522	0.472	-0.824	87.72	0.412	-0.289
2	Parents willingness to volunteer	2.221	0.14	-1.183	88	0.24	-0.4
3	Knowledge sharing with parents	1.494	0.225	-1.878	87.194	0.064	-0.667
4	Challenges communicating	4.559	0.036	-2.191	88	0.031	-0.778
5	Involvement of parents	0.333	0.565	-2.623	86.847	0.01	-0.844
6	Parents difficult to work with	1.673	0.199	-1.473	86.84	0.144	-0.533
General Attitude Towards Inclusion							
7	Inclusion benefits children	0.706	0.403	-2.681	87.994	0.009	-0.867
8	Positive change in our education	0.292	0.59	-0.966	87.943	0.337	-0.333
9	Disable children must be included	1.942	0.167	-1.4	86.547	0.165	-0.511
10	Severe disabilities be excluded	1.257	0.265	-1.957	87.432	0.054	-0.689
Feasibility of Inclusion							
11	Disability aides is distracting	0.333	0.565	-2.62	86.847	0.01	-0.844
12	Difficult to Individualize instruct.	1.673	0.199	-1.47	86.84	0.144	-0.533
13	Difficulty to include children	0.706	0.403	-2.68	87.994	0.009	-0.867
14	Meeting special student needs	0.292	0.59	-0.97	87.943	0.337	-0.333
Confidence in Ability to Carry out Inclusion							
15	It helps all children	1.942	0.167	-1.4	86.547	0.165	-0.511

16	Possess Knowledge base	1.673	0.199	-1.473	86.84	0.144	-0.533
17	Need help of team for success	0.706	0.403	-2.681	87.994	0.009	-0.867
18	Feel comfortable	3.84	0.053	-2.535	85.93	0.013	-0.889
19	support staff	0.333	0.565	-2.623	86.847	0.01	-0.844
20	Skills and resources to adapt	1.673	0.199	-1.473	86.84	0.144	-0.533
21	Additional training requirement	0.706	0.403	-2.681	87.994	0.009	-0.867
22	Lack sufficient information	0.292	0.59	-0.966	87.943	0.337	-0.333

4.2.2 Parents' attitude towards inclusion

In addition to teachers' attitude towards inclusion, parents' attitudes towards inclusive education were also investigated. Overall descriptive statistics of teachers' attitude towards inclusive education is presented in Table 4.6. A generally positive attitude exists towards inclusive education as all items recorded an above average overall mean rating. A comparison of the mean of results attributable to parents with wards in public and private schools are also presented in Table 4.7. Three out of ten items in the list of variables (colour coded in Table 4.7) revealed differences.

Table 4.6: Parents Attitude towards inclusion: Descriptive Statistics

Variable/Dimension		Mean	Std. Dev	Var.	Skew-ness	Kurt-oses	Range
Relationship with team members (Overall Mean = 4.75)							
1	Relationships with teachers	4.79	1.659	2.753	-0.682	-0.473	6
2	Value of input from teachers	4.67	1.729	2.989	-0.575	-0.708	6
3	Effective communication	4.81	1.586	2.514	-0.719	-0.385	6
4	Intimidation during IEP meetings	4.79	1.659	2.753	-0.682	-0.473	6
5	Experience working with teachers	4.67	1.729	2.989	-0.575	-0.708	6
General Attitude Towards Inclusion (Overall Mean = 4.68)							
6	Inclusion benefits regular children	4.73	1.708	2.917	-0.652	-0.565	6
7	Inclusion is a positive change	4.62	1.713	2.934	-0.528	-0.693	6
8	Disable children inclusion	4.69	1.577	2.486	-0.612	-0.497	6
9	Severe disabilities excluded	4.67	1.729	2.989	-0.575	-0.708	6

Table 4.7: Parents Attitude towards children with hearing impairment: Public versus Private

Variable/Dimension		F	Sig.	t	df	Sig. (2tail)	Mean Diff.
Attitude Towards Parent's Involvement							
1	Relationships with teachers	0.522	0.472	-0.824	87.729	0.412	-0.289
2	Value of input from teachers	1.673	0.199	-1.473	86.84	0.144	-0.533
3	Effective communication	0.706	0.403	-2.681	87.994	0.009	-0.867
4	Intimidation during IEP meetings	0.522	0.472	-0.824	87.729	0.412	-0.289
5	Experience working with teachers	1.673	0.199	-1.473	86.84	0.144	-0.533
General Attitude Towards Inclusion							
6	Inclusion benefits children	1.494	0.225	-1.878	87.194	0.064	-0.667
7	Inclusion is a positive change	3.84	0.053	-2.535	85.93	0.013	-0.889
8	Disable children inclusion	0.333	0.565	-2.623	86.847	0.01	-0.844
9	Severe disabilities excluded	1.673	0.199	-1.473	86.84	0.144	-0.533

Generally, it may be observed that in agreement with findings on teachers' attitudes, parents' attitudes of wards in the public institution generally ranked higher in terms of attitude than parents in the private institutions. This was true even though the statistically significant difference was only identified among three items.

4.2.3 Observed attitude towards inclusion

Parents of the wards observed generally demonstrated a very positive attitude regarding the inclusion of their children in the IEP classes. Letters from parents generally showed that they are appreciative of the inclusion of their children in the IEP classes. Even though the parents understand that the program has its challenges, they were supportive and continued to communicate their readiness to assist.

Both parents and teachers expressed a high level of commitment to the development of children with hearing impairment. This is true for both private and public educational institutions. The teachers and parents collaborated in IEP programs delivery. At scheduled meetings, parents would usually turn up in a very encouraging manner.

Even though this can be established concerning the parents of the children with disabilities; little can be said about parents with regular pupils. Even though no interactions ensued, their commitments to the development of their children were below that of the parents of children with disability observed. Moreover, their orientation to the children with disabilities who study together with their children seemed indifferent and not much recommendable. Despite this inferred from the observation of a few cues, the general attitude of parents is in support of those with disabilities and learning difficulties.

Teachers, on the other hand, were very supportive and helpful in both the private and public institution with regards to the integration of students from both areas to ensure collaborative development. Aside from co-operating with parents, the teachers and school administration co-operated with one another. Slightly higher level of co-operation and collaborative development was observed in the public institutions looking at the attitudes of teachers and parents compared with that of the private institutions; the significance of this differences, however, were not very significant from the observations.

It was observed that though the IEP was being implemented, one some parents of the observed candidates were not fully aware of the details of the content and its implementation. It was observed that majority of the parents were satisfied with the program, and considered it as a great effort directed at developing their wards alongside other regular children.

It is important to mention that some teachers, however, behaved in a manner that pointed in the direction that parents would like the program to offer more than it is

currently offering. In order words, they believed that the parents want more special treatment for their children, especially in the private institution. Teachers however generally worked in a collaborative effort with parents and this was necessary to get the unsettled parents fully on board.

4.3 Resources facilitating inclusion in public and private institutions

The second research question sought to investigate the resource adequacy in schools with regards to the inclusion of children with hearing impairment. Here, teachers' and parents' perceptions of resource adequacy were investigated and the differences between public and private institutions contrasted. First, teachers' perceptions of resource adequacy are presented. This is followed be general parents' perception of resource adequacy. Finally, observations of resource adequacy are presented.

4.3.1 Teachers' perception of resource adequacy for inclusive education

From Table 4.8 it may be inferred that a positive perception exists that resources are adequately installed to take care of children with hearing impairment.

Table 4.8: Teachers perception of resource adequacy for inclusion of hearing impairment

Variable/Dimension		Mean	Std. Dev	Var.	Skew-ness	Kurt-oses	Range
1	School rules and regulations	4.68	1.741	3.03	-0.561	-0.723	6
2	School effort	4.68	1.741	3.03	-0.561	-0.723	6
3	Class resources and equipment	4.67	1.729	2.989	-0.575	-0.708	6
4	Measures & facilities outside	4.81	1.586	2.514	-0.719	-0.385	6
5	Appropriate environment	4.62	1.713	2.934	-0.528	-0.693	6
6	Availability of specialists	4.69	1.577	2.486	-0.612	-0.497	6
7	Collaborative planning	4.67	1.729	2.989	-0.575	-0.708	6
8	Overall adequacy of resources	4.81	1.586	2.514	-0.719	-0.385	6

Highest perception of resource adequacy was recorded in the area of the availability of measures and facilities outside of the classroom to assist children with hearing

impairments. Among parents (Table 4.8), highest perception ranking was in the area of installed collaborative planning mechanisms. In the private educational institutions against that of the public institution, general resource adequacy was higher in the public institution than the private institution (Table 4.9) even though general perception of resource adequacy was high. Four out of 8 items established statistical significant difference in perceived means between the public and private institutions; these include Measures & facilities outside, Appropriate environment, Availability of specialists and overall adequacy of resources (Table 4.9).

Table 4.9: Teachers' perception of resource adequacy

Variable/Dimension		F	Sig.	t	df	Sig. (2tail)	Mean Diff.
Teachers Perception of resource adequacy: Public versus private institutions							
1	School rules and regulations	1.942	0.167	-1.4	86.547	0.165	-0.511
2	School effort	1.942	0.167	-1.4	86.547	0.165	-0.511
3	Class resources and equipment	1.673	0.199	-1.473	86.84	0.144	-0.533
4	Measures & facilities outside	0.706	0.403	-2.681	87.994	0.009	-0.867
5	Appropriate environment	3.84	0.053	-2.535	85.93	0.013	-0.889
6	Availability of specialists	0.333	0.565	-2.623	86.847	0.01	-0.844
7	Collaborative planning	1.673	0.199	-1.473	86.84	0.144	-0.533
8	Overall adequacy of resources	0.706	0.403	-2.681	87.994	0.009	-0.867

4.3.2 Parents' perceptions of resource adequacy for inclusive education

The parent perception of resource adequacy is presented in Table 4.10. Data on the comparative perception of parents of public institutions against results from parents in private institutions is presented in Table 4.11. Generally, resource adequacy was very high in all areas of measurements used.

Table 4.10: Parents perception of resource adequacy for inclusion of hearing impairment

Variable/Dimension		Mean	Std. Dev	Var.	Skew-ness	Kurt-oses	Range
1	School rules and regulations	4.81	1.586	2.514	-0.719	-0.385	6
2	School effort	4.77	1.636	2.675	-0.717	-0.434	6
3	Class resources and equipment	4.68	1.741	3.03	-0.561	-0.723	6
4	Measures & facilities outside	4.72	1.696	2.877	-0.668	-0.547	6
5	Appropriate environment	4.69	1.577	2.486	-0.612	-0.497	6

6	Availability of specialists	4.67	1.729	2.989	-0.575	-0.708	6
7	Collaborative planning	4.81	1.586	2.514	-0.719	-0.385	6
8	Overall adequacy of resources	4.77	1.636	2.675	-0.717	-0.434	6

Differences in perceptions of parents in the context of private versus public institutions revealed that all mean values for all the variables for both private and public institutions were above the mid-value of 4.0. However, the public educational institution's ranking was generally higher than that of the private institution. Significant differences between public and private institutions exist in 3 out of the 8 items assessing parents' perception of resource adequacy.

Table 4.11: Parents perception of resource adequacy

Variable/Dimension		F	Sig.	t	df	Sig. (2tail)	Mean Diff.	Std. Error
Parents Perception of resource adequacy: Public versus private institutions								
1	School rules and regulations	0.706	0.403	-2.681	87.994	0.009	-0.867	0.323
2	School effort	0.292	0.59	-0.966	87.943	0.337	-0.333	0.345
3	Class resources and equipment	1.942	0.167	-1.4	86.547	0.165	-0.511	0.365
4	Measures & facilities outside	1.257	0.265	-1.957	87.432	0.054	-0.689	0.352
5	Appropriate environment	0.333	0.565	-2.623	86.847	0.01	-0.844	0.322
6	Availability of specialists	1.673	0.199	-1.473	86.84	0.144	-0.533	0.362
7	Collaborative planning	0.706	0.403	-2.681	87.994	0.009	-0.867	0.323
8	Overall adequacy of resources	0.292	0.59	-0.966	87.943	0.337	-0.333	0.345

4.3.3 Informal student observation and observed resources

Pupils with hearing disabilities appeared more comfortable in some areas such as the playground than others such as the classroom. It was observed that in areas such as the classrooms, loudness is controlled at some point in time; the playground, on the other hand, is usually filled with communication through shouting. Also in areas of arts, sports, and the likes, children indicated that they were more comfortable and at ease as opposed to subjects like mathematics. Children with such impairment or some minor form of disability were, however, a minority of pupils but saw

themselves as being on par with other regular students. Generally, the were visuals and other gadgets installed in the classrooms to complement the hearing difficulties.

Teachers in both schools of private and public institutions use of visual aids, controlled the level of noise in the classrooms and ensured that noise is controlled in order for the pupils with hearing impairment to benefit adequately. Generally, the pupils enjoyed the company of regular students and did not exhibit any behaviour that revealed discrimination or incompatibility. The pupils had the full attention of the students and other pupils.

4.4 Curricula adequacy of inclusion in public and private institutions

4.4.1 Teachers and parents' perceptions of curricula adequacy

The last research question sought curricula adequacy of educational institutions particularly relating to students with special needs. Both teachers' and parents' perceptions of the availability and adequacy of the curricula in the organizations were generally positive (Table 4.12).

Table 4.12: Perception of curricula adequacy for inclusion of children with hearing impairment

Variable/Dimension		Mean	Std. Dev	Var.	Skew-ness	Kurt-oses	Range
Teachers perception of curricula adequacy for inclusion of children with hearing impairment							
1	meaningful activities	4.77	1.636	2.675	-0.717	-0.434	6
2	student genuine participation	4.68	1.741	3.03	-0.561	-0.723	6
3	appropriate informal methods	4.67	1.729	2.989	-0.575	-0.708	6
4	Promotion of Interaction	4.81	1.586	2.514	-0.719	-0.385	6
5	Overall effectiveness	4.62	1.713	2.934	-0.528	-0.693	6
Parents perception of curricula adequacy for inclusion of children with hearing impairment							
1	meaningful activities	4.68	1.741	3.03	-0.561	-0.723	6
2	student genuine participation	4.67	1.729	2.989	-0.575	-0.708	6
3	appropriate informal methods	4.81	1.586	2.514	-0.719	-0.385	6
4	Promotion of Interaction	4.77	1.636	2.675	-0.717	-0.434	6
5	Overall effectiveness	4.68	1.741	3.03	-0.561	-0.723	6

Here, and like the other aspects investigated, general perceived adequacy of curricula was higher in the public institution than the private institution. Significant differences were established in two areas of Measures & facilities outside and the Appropriateness of environment with regards to differences in teachers' perceptions of private as opposed to the public institution. Significance in the area of parent perceptions was established in only one area of class resources and equipment.

Table 4.13: Teachers and Parents perception of curricula adequacy

Variable/Dimension		F	Sig.	t	df	Sig. (2tail)	Mean Diff.
Teachers Perception of curricula adequacy: Public versus private institutions							
1	School rules and regulations	0.292	0.59	-0.966	87.943	0.337	-0.333
2	School effort	1.942	0.167	-1.4	86.547	0.165	-0.511
3	Class resources and equipment	1.673	0.199	-1.473	86.84	0.144	-0.533
4	Measures & facilities outside	0.706	0.403	-2.681	87.994	0.009	-0.867
5	Appropriate environment	3.84	0.053	-2.535	85.93	0.013	-0.889
Parents Perception of curricula adequacy: Public versus private institutions							
1	School rules and regulations	1.942	0.167	-1.4	86.547	0.165	-0.511
2	School effort	1.673	0.199	-1.473	86.84	0.144	-0.533
3	Class resources and equipment	0.706	0.403	-2.681	87.994	0.009	-0.867
4	Measures & facilities outside	0.292	0.59	-0.966	87.943	0.337	-0.333
5	Appropriate environment	1.942	0.167	-1.4	86.547	0.165	-0.511

4.4.2 Curricula observation

It was observed as not unusual for students to not be enthusiastic towards studies with no activities but be more inclined towards playful and activity-based learning; this was evident even in both regular pupils and the pupils with hearing difficulties. On the introduction of new items in the curricula, the pupils would usually take time to adjust and get used to their new learning environment or learning outcomes. However, this is also considered normal even in some regular pupils. Ultimately, pupils in both the public and private institutions exhibited preferences when it came to some categories of classwork as compared to some others.

It was observed that pupils were more comfortable learning when the learning involved more demonstrative methods. They learned best in such conditions where the highlight was on actions and illustrations in the form of activity based teaching approaches.

Even though teachers recognized that meeting all area of the curricula was not easy to work, especially with such inclusive curricula, they were able to make the most of the available resources and did not demonstrate the inadequacy of resources to support the curricula. Parents also generally showed much interest in all activities proposed by the school and were enthusiastic when it came to meetings and performance of their part of the curricula. They were available to share their opinions on areas they taught could be improved as well as methods that could be adopted to further assist the children.

In general, the pupils exhibited good performance compared to the regular students on the implementation of their unique IEP. Other regular pupils even performance relatively poor when it came to academic performance and even other areas not traditionally academic. Parents were interested in being updated with new developments in school; they were interested in new methods being introduced and how their kids are doing in terms of learning, and areas where teachers have recognised as strengths of their children. The general observation was that the high involvement of the parents helped the pupils to be generally more comfortable with the program and their school environment.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

The results, findings, and interpretations are discussed in the present chapter. Particular attention is offered to secondary theoretical and empirical literature surrounding the subject and already in existence. The implications of the results for theory and practice are also discussed. As the final chapter of the study, this chapter presents the conclusion and recommendations based. Particularly, it present conclusions in the context of the research questions set to be answered in the introductory chapter; thus conclusions are offered in three main areas of attitudes, resources, and curricular taking note of how results clarify the discrepancy between the public and private educational institution investigated. Recommendations are offered to future researchers who would venture into similar areas of studies. Other recommendations are offered to the public and private educational institutions and teachers in UAE on how to improve inclusion, particularly related to children with hearing impairment. Recommendations are also offered to parents of students in UAE educational institutions

5.1 Discussions

The attitude of teachers and parents in public institutions are generally higher than attitudes of teachers and parents in private educational institutions. Even though about 50% to 66% of the variables did not establish statistical significance that respondents in the public institution have a more positive attitude towards inclusion,

the general attitude of public institutional respondents was consistently higher than that of the private educational institution.

These results are true for all areas of attitudes, curricula and resource adequacy comparing private institutions to public institutions. The difference is however only partial or marginal and does not apply to all the variables under investigation. These findings may have some implications to theory and other implications to the practice of inclusion in UAE.

5.2 Implications for theory

It has been purported by many scholars including Fisher et al., (2003) and Kilgore & Griffin (1998) that, the topic of inclusion has attracted the special interest of parents and teachers as they now have higher expectations for inclusion. This has therefore brought about key changes that are required for the initiation of inclusive programs. As noted by Arif & Gaad (2008) and Al Roumi (2008), several steps have been taken by the Ministry of Education in the UAE to adequately train and educate teachers as well as parents on the main objectives as well as advantages of inclusion.

Inclusion has come to be widely accepted in many areas of the world and great focus has been put on the development of curricula and other such materials taking into consideration the abilities of children with hearing difficulties among others (Ivey & Reincke, 2002). Even though measures have been installed in UAE, some improvements and continuous development may be required to meet the fill expectations of stakeholders involved.

It is asserted that inclusion enables all pupils to have the same opportunities and learning environments so that their educational needs are catered for through an integration into the general classroom (Al Zyoudi, 2006). This assertion is in line with the findings of the present investigation that students must be given the opportunity to evaluate how well they perform, rather than how they cannot perform. The students under observation seemed to perform at par with regular peers, even with equally outstanding performance in some areas of classroom activities. The disability of hearing impairment was therefore not justifiable grounds to exclude them from mainstream education.

It has been suggested that even though parents are generally positive regarding the abilities of their children Gaad (2004a), they build up some stress as they continuously care for children with regards to intellectual disabilities (Esdaile & Greenwood, 2003). Parents of children with disabilities are undoubtedly highly involved with their children in terms of education among other things, however, this affects the parents as it has been reported by Esdaile & Greenwood (2003) that these parents usually have lower rates of employment, social participation, and are often distressed. Nonetheless, their high involvement is desirable for the appropriate development of the children.

Taking into consideration that teachers are a key factor when it comes to education, there has been great attention regarding their attitude towards inclusion. Even though some studies revealed low support of teacher when it comes to inclusion (Minke, Bear & Deemer 1996; Reiter, Schanin & Tirosh 1998; Al Zyoudi, 2006; Florian, 2012; Zoniou-Sideri & Vlachou, 2006), in the majority of these studies, teachers saw inclusion as a strategy that can be implemented in schools while

pointing out that separating special needs students could be to their own benefits as they would enjoy special attention. Moreover, as reported by Al Zyoudi, (2006) some other studies in other parts of the world revealed that teachers have a positive attitude towards inclusion.

5.3 Implications for practice of Inclusion

Some researchers consider inclusion as the simple acknowledgement of the need to establish structures that will take care of diversities among students (Ainscow, 1999). However, it has been revealed that inclusion goes beyond the mere acknowledgement of a need, this is because the main task in inclusion is to cater for the diversities among students (Ainscow, 2007; Florain, 2008). And this requires the devotion of valuable resources.

There have been many arguments surrounding the implementation of inclusion and the level of implementation that may be regarded as satisfactory or effective (Kauffman, McGee & Brigham, 2004; Dukmak, 2013). In UAE, the inclusion of children with disabilities; particularly hearing impairment seems higher in public institutions. The public institutions are financed by the government and under the direct auspices of the ministry of education; it is therefore much easier to finance considering the government sees non-financial returns from the institutions.

As opposed to the government institutions, the private institutions had to reach a mark between profitability and adequacy in these three areas of holistic inclusion investigated. Such conflicting priorities of profits and quality motives may have accounted for lower perceived levels of curricula and resources. In the area of

attitudes, a higher perception has been established in the area of public than private institutions.

For any school that seeks to implement the inclusion of students with special needs into mainstream classes, there is the need to carefully analyse current conditions in order to make ready the necessary environment for such implementation. According to Abbot (2006) schools need to establish a climate that is conducive for the inclusion by eliminating all barriers to smooth learning and putting in place necessary measures to evaluate performance.

It may be deduced however that effective implementation of inclusion depends on maximum cooperation from both parents and the teachers, and even the students themselves. Measurement of the success of inclusion in these three main areas would help educational institutions in the region step-up their effort to offer every child his or her basic right to mainstream education.

5.4 Conclusion

An attempt is made to present overall orientation of results in addition to how findings from the private educations institutions relate to that of the public educational institutions.

Attitude

It is concluded that teachers and parents in the public sector have a more positive attitude towards inclusion in UAE. The general attitude towards inclusion in UAE is however favourable and above average even though further improvement is

recommended towards the improvement of attitude towards inclusive education, especially in private educational institutions.

Resources

Resource adequacy in both private and public institutions was high according to the perceptions of teachers and parents. Resource adequacy in the public institutions are however higher than resources in the private institutions; this was significant for 50% of the items used to measure resource adequacy for teachers and 40% of the items used to measure resource adequacy for parents. The rest were not significant but yet higher based on the mean comparison. Particularly, perceptions were in the direction that public educational institution had installed an appropriate environment good for inclusive education in a manner higher than that of the private educational institution.

Curricula

Attitudes towards the current curricula in the schools were positive from both parents and teachers in private and public institutions. Even though responses were not to the extremes, they were favourable and therefore just slight modifications may be necessary. Teachers and parents in public educational institutions again had a higher perceived adequacy of curricula compared with teachers and parents in private educational institutions; This was significant for 40% of items used to measure teachers perceived adequacy of curricula, and 20% of items used to measure the perceived adequacy of curricula for parents.

5.5 Recommendations

Recommendations of the study are offered in two main areas of recommendations to future researchers, teachers, educational institutions, and other significant stakeholders.

5.5.1 Recommendations for future researchers

It is recommended that other investigations must be conducted in similar or different areas of children learning disability instead of hearing impairment. Contrasting results in such manner would help reveal actual disabilities with the most challenges so that future researchers can be steered in that direction. In addition, it is recommended that future investigations consider the long-term orientation to success measurement. The long-term orientations would prove a more suitable measure of sustainability and true success of inclusion in educational institutions.

It is also recommended that studies take into consideration the use of the survey research strategy without a restriction to any few case study institutions. This is based on the acceptance that the present study may be limited with regards to the generalizability of its findings. Using a larger sample size will be in the right direction to generalize the results to the entire country of UAE, GCC or even the Middle East depending on study coverage.

It is finally recommended that instead of focusing on children or pupils with hearing impairment, future comparative investigations in this area must focus on other disabilities as well. It may be noted that disabilities have different requirements

with regards to resources, curricula and even attitudes. Noting these differences and orientation in the context of the success criteria would be imperative to academia.

5.5.2 Recommendations to educational institutions and other stakeholders

Empirical evidence proved that public institutions have a more positive attitude, adequate resources, and adequate curricula that surpass those of private educational institutions. There is the need to enhance the attitudes and general resources of private institutions as these institutions make up a greater percentage of educational institutions in UAE. Parents of children with hearing difficulties need to make efforts to involve themselves in their school activities as their involvement and collaboration with teachers have been found to be essential to successful inclusion outcomes.

The government may improve resources, attitudes, and curricula in the private institutions by setting a higher benchmark for these institutions. In addition, public education would be necessary, especially in the area of teachers, parents and the general public attitude towards inclusion.

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APPENDICES

Appendix 1: Time Chart

Key Objectives	Time / Weeks
Review the project proposal	week 1
Review secondary Literature	week 2
Obtaining approval of Project Proposal	
Methodology & questionnaire Construction	week 3
Obtaining approval of Methodology	
Data Collection	week 4, 5 & 6
Data Analysis & Interpretation	week 7 & 8
Approval of Data analysis	week 9
Study conclusion / Recommendations	week 10 & 11
Project completion	week 12

Appendix 2: Participant Information Sheet

Date_____

Inclusion of pupils with hearing difficulties in mainstream educational institutions:

A comparative case study of a public and private school in UAE

Please take time to read the following information carefully. Ask me if there is anything that is not clear or if you would like more information.

What is the study about?
This study looks at how inclusion is successfully implemented in UAE whereas comparing findings from the private institutions with findings from public institutions.

Who is doing this study and why?
I am a student at the British University in Dubai and I am doing this study for my dissertation. I am supervised by Professor Eman Gaad of British University in Dubai.

Why have I been chosen?
I am inviting you to take part in this study as someone who I think would be able to provide some valuable opinions about the questions being asked on inclusion of students in mainstream education

Do I have to take part?
It is up to you to decide whether or not you want to take part. You do not have to give a reason.

Participants' rights
If you do decide to take part, you will be given this information sheet to keep. You may decide to stop being a part of the research study at any time without explanation. You have the right to ask that any data you have supplied to that point be destroyed. You have the right to omit or refuse to answer any question that is asked of you. You have the right to have your questions about the procedures answered. If you have any questions as a result of reading this information sheet, you should ask the researcher before the study begins.

What happens next if I agree to take part in this study?
You will need to complete the questionnaire physically. This will take no more than 20 minutes

What kind of information will be collected about me?
In the questionnaire, I will ask you some information about your feelings and perceptions concerning the inclusion of children with hearing impairment in mainstream education.

Confidentiality/anonymity
Any information you supply to me will be treated confidentially in accordance with rules of UAE: your name and identifying affiliations will be anonymized in the analysis and any resulting publications unless you give your explicit consent to identify you as a subject. Any information you provide will not be given to anyone else.

What are the benefits of taking part in this study?
There is no payment for taking part in this study. This study will help understand successful inclusion in public and private educational institutions in UAE and will make a significant contribution to the success rate of inclusion in the UAE's public and private sectors towards economic development in the region in general.

Are there any risks in taking part in this study?
There are no risks in taking part in this study.

What happens when the study finishes?
The results of the study will be presented in my dissertation.

For further information
If you have further questions about the study, you are welcome to contact me at the following e-mail address: noora_ma4@yahoo.com

THANK YOU FOR TAKING THE TIME TO READ THROUGH THIS INFORMATION!

Appendix 3: Participant Informed Consent Form

Thank you for agreeing to participate in this study. Before I carry out the research, I would like you to read the following statements and confirm your agreement to take part in this study.

	Please tick to confirm
I confirm that I have read and understood the Participant Information Sheet dated.....	
All the questions that I have about the research have been satisfactorily answered	
I understand that my participation is voluntary and that I am free to withdraw from the study at any time, without giving reason	

I agree to participate.

Participant's signature: _____

Participant's name (please print): _____

Date: _____

Appendix 4: Survey Questionnaire (Teachers)

Dear Participant,

This survey is being undertaken as part of an investigation/research into successful inclusion in UAE educational institutions. Any information provided is strictly confidential and for the aforementioned purposes only.

Section A – Demographics

Please select the correct answer.

1. Gender
   [ ] Male
   [ ] Female

2. Age
   [ ] 15-24
   [ ] 25-34
   [ ] 35-44
   [ ] 45-54
   [ ] 55 and above

3. Education
   [ ] High School or less
   [ ] University or 1st Degree
   [ ] Postgraduate or above

4. Nationality
   [ ] Emirati
   [ ] Expatriate (Non-Arab Country)
   [ ] Expatriate (Arab Country)

5. Years of Experience (Teachers only)
   [ ] <5 years
   [ ] 5-10 years
   [ ] 11-15 years
   [ ] 16-20 years
   [ ] >20 years

6. Grade Level Currently Taught
   [ ] KG
   [ ] 1
   [ ] 2
   [ ] 3
   [ ] 4
   [ ] 5
   [ ] 6
   [ ] 7
   [ ] 8
   [ ] 9
   [ ] 10
   [ ] 11
   [ ] 12

Section B – Teachers Characteristics

7. Special Education Qualification
   [ ] PhD
   [ ] Masters
   [ ] Bachelors
   [ ] Diploma
   [ ] Course
   [ ] No Qualification

8. Have you taught children with special needs?
   [ ] Yes
   [ ] No

9. Location of Classes where children with special needs were taught
   [ ] Regular Classroom
   [ ] Special Class at a Regular School
   [ ] Special School
   [ ] Other
   [ ] N/A or answered no in the previous question

10. The level of Special Education in the United Arab Emirates at Present
    [ ] Advanced
    [ ] Developing
    [ ] Satisfactory
    [ ] Non-Existing
    [ ] N/A

11. What area of inclusion is most difficult to include in the regular classroom?
    [ ] Learning Disability
    [ ] Intellectual Disability
    [ ] Physical Disability
    [ ] Behavioural Disorders
    [ ] N/Ac

Instructions: Dear teacher, please rate the following from 1 to 7 where
1= strongly disagree,
2= disagree,
3= somewhat disagree (disagree with doubts)
4= undecided,
5= somewhat agree (agree with doubts)
6= agree,
7= strongly agree
* Red colour indicates negative statements which were reverse coded for analysis so that a higher score indicates a more positive attitude

Section C – Teachers' Attitude towards children with hearing impairment

S/N	Items/Scale	1	2	3	4	5	6	7
	Attitude Towards Parent's Involvement							
1	Parents of children with hearing impairment can be valuable resources in my efforts to understand their children's needs and disabilities							
2	I would prefer if parents did not volunteer to spend time in my classroom							
3	I have learned much about how inclusion can work from parents of children with hearing impairment							

4	I tend to have challenges communicating effectively with parents of children with hearing difficulties							
5	Having parents involved in setting IEP goals makes schools' task very complicated							
6	Parents of children with hearing challenges are often difficult to work with							
	General Attitude Towards Inclusion							
7	Inclusion of children with hearing challenges benefits the children in the class who do not have disability							
8	Inclusion of children with hearing challenges represents a positive change in our education system							
9	Every child with hearing impairment should be included to the greatest extent possible in general education settings							
10	Children with severe hearing problems would be served better in a special education classroom rather than an included setting							
	Feasibility of Inclusion							
11	Having special hearing education aides in the classroom is distracting							
12	Individualizing instruction for children with hearing difficulties is an overwhelming task for teachers to accomplish							
13	It is extremely difficult to successfully include some children with hearing challenges in the general classroom.							
14	Meeting all the needs of a child with hearing impairment in general education classrooms is often not feasible							
	Confidence in Ability to Carry out Inclusion							
15	I have the skills to help children with and without hearing disabilities become comfortable interacting with one another							
16	I know how and where to seek information about how to include children with hearing challenges in the classroom							
17	With the help of the other team members, I think that I could successfully implement hearing-challenged children's IEPs.							
18	I feel comfortable using my usual teaching methods and style when children with hearing difficulties are in my classroom							
19	I feel I have sufficient support staff to help make inclusion of such children work smoothly in my classroom							
20	I feel I have the skills and resources to know how to adapt materials for children hearing difficulties.							
21	I need much more training before I can even begin to successfully include a child with hearing impairment in my classroom							
22	I feel that I do not have sufficient information about how to include children with hearing impairment in my classroom							

Section C – School Resources for children with hearing impairment

S/N	Items/Scale	1	2	3	4	5	6	7
1	The school has rules and regulations governing the inclusion of children with hearing difficulties.							
2	I do not think the school is doing enough to ensure effective inclusion of children with hearing challenges							
3	My school has put in place resources and equipment within the classrooms to help children with hearing challenges							
4	Measures and facilities outside the classroom are in place to assist students with special needs, particularly those with hearing challenges							
5	An appropriate environment good for inclusive education is maintained							
5	There is access to specialists regarding students with hearing impairment in my educational institution							

6	There are collaborative planning and decision making with all stakeholders in my educational institution							
7	Overall, my school has installed adequate resources to ensure effective inclusion of students with hearing impairment.							

Section D – Curricula for Children with Hearing Impairment

S/N	Items/Scale	1	2	3	4	5	6	7
1	Curricula cover meaningful activities that occur regularly such as outdoor playtime, washing up for snack etc							
2	Student genuine participation in program activities is promoted.							
3	There is room for appropriate informal methods to enhance inclusive education							
4	Interaction is promoted among regular children and disabled children							
5	Overall, the curricula for children with hearing impairment in my school is very effective							

Appendix 5: Survey Questionnaire (Parents)

Dear Participant,
This survey is being undertaken as part of an investigation/research into successful inclusion in UAE educational institutions. Any information provided is strictly confidential and for the aforementioned purposes only.

Section A – Demographics

Please select the correct answer.

1. Gender
   [ ] Male
   [ ] Female

2. Age
   [ ] Less than 24
   [ ] 25-34
   [ ] 35-44
   [ ] 45-54
   [ ] 55 and above

3. Education
   [ ] High School or less
   [ ] University or 1st Degree
   [ ] Postgraduate or above

4. Nationality
   [ ] Emirati
   [ ] Expatriate (Non-Arab Country)
   [ ] Expatriate (Arab Country)

5. How old is your child?
   [ ] Less than 2 years
   [ ] 3-6 years
   [ ] 7-10 years
   [ ] 11-14 years
   [ ] 15-18 years
   [ ] 19 years and above

6. Grade Level of child
   [ ] KG
   [ ] 1
   [ ] 2
   [ ] 3
   [ ] 4
   [ ] 5
   [ ] 6
   [ ] 7
   [ ] 8
   [ ] 9
   [ ] 10
   [ ] 11
   [ ] 12

Section B – Attitude of Parents towards inclusion

S/N	Items/Scale	1	2	3	4	5	6	7
	Relationship with Team Members							
1	Overall, I have had positive relationships with my child's teachers							
2	I feel like teachers and other professionals in the schools' value my input							
3	I find it difficult to effectively communicate with teachers and other professionals in the schools							
4	I often feel intimidated during IEP meetings							
5	Working with teachers to help my child learn with the other children has been a trying experience							
	General Attitude towards Inclusion							
6	Inclusion of children with hearing challenges in regular classrooms represents a positive change in our education system							
7	All children with hearing impairments should be included to the greatest extent possible in general education settings.							
8	Inclusion of such children benefits the children in the class who do not have disabilities							
9	Children with severe hearing disabilities would be served better in a special education classroom rather than an included setting							

Section C – School Resources for Children with hearing impairment

S/N	Items/Scale	1	2	3	4	5	6	7
1	The school has rules and regulations governing the inclusion of children with hearing difficulties.							
2	I do not think the school is doing enough to ensure effective inclusion of children with hearing challenges							
3	My school has put in place resources and equipment within the classrooms to help children with hearing challenges							
4	Measures and facilities outside the classroom are in place to assist students with special needs, particularly those with hearing challenges							
5	An appropriate environment good for inclusive education is maintained							
5	There is access to specialists regarding children with hearing impairment in my educational institution							
6	There are collaborative planning and decision making with all stakeholders in my educational institution							
7	Overall, my school has installed adequate resources to ensure effective inclusion of children with hearing impairment.							

Section D – Curricula for Children with Hearing Impairment

S/N	Items/Scale	1	2	3	4	5	6	7
1	Curricula cover meaningful activities that occur regularly such as outdoor playtime, washing up for snack etc							
2	Student genuine participation in program activities is promoted.							
3	There is room for appropriate informal methods to enhance inclusive education							
4	Interaction is promoted among regular children and disabled children							
5	Overall, the curricula for children with hearing impairment in my school is very effective.							

Appendix 6: Observation Guide

The following areas were observed

1. Attitudes and Tools for collaboration with Parents
    a. Parent Letter – Formal Description of IEP Process
    b. Parent IEP Input Assessment
    c. Family Goal Setting
    d. Teacher-Parent collaboration
    e. Contribution of parents to self-advocacy skills

2. Informal Student Observation and Resources
    a. Learning Strengths
    b. Learning Challenges
    c. Classroom observation
    d. Outside Class observation
    e. Student self-advocacy level
    f. Tools for collaboration with professional
        - IEP Planning Meeting
        - IEP Review Meeting
        - IEP Year End Summary
        - IEP Checklist

3. Curricula Observation
    a. Adaptations Checklist
    b. Learning Assistance and Classroom supports
    c. In-Class Work
    d. Student Learn best when…….
    e. Meaningful Routines
    f. Multi-Subject Matrix
    g. IEP Matrix: Strategies to Support
    h. What works for teachers and parents
    i. Favourite and effective strategies for students