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The Experiences of Deaf and Hard of Hearing Students and Specialist Teachers in Mainstream Schools in Saudi Arabia

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**UNIVERSITY OF
PLYMOUTH**

**THE EXPERIENCES OF DEAF AND HARD OF HEARING STUDENTS AND
SPECIALIST TEACHERS IN MAINSTREAM SCHOOLS IN SAUDI ARABIA**

by

MUBARAK GHAYADH ALANAZI

A thesis submitted to the University of Plymouth
in partial fulfilment for the degree of

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Author's Declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

Work submitted for this research degree at the University of Plymouth has not formed part of any other degree either at the University of Plymouth or at another establishment.

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ABSTRACT

The Experiences of Deaf and Hard of Hearing Students and Specialist Teachers in Mainstream Schools in Saudi Arabia

Mubarak Alanazi

This study was designed to explore the perceptions of Deaf and Hard of Hearing (DHH) students and specialist teachers regarding inclusive education and associated barriers and support in four mainstream primary schools for boys in Riyadh, Saudi Arabia. DHH students and specialists involved in inclusive schools have experienced mainstreaming since 2000; their experience, perceptions and understanding as members of these particular communities of practice can offer important insights into the development of practice towards inclusive education. This research aimed to help the Saudi education system to translate inclusive education principles into practice. Ainscow's model (2005a) of inclusive education and an interactionist view of disability have framed the formation of study's objectives and secondary research questions. Data were generated from a qualitative case study: semi-structured interviews with eight DHH students, twelve specialist teachers, and four parents, observations in mainstream schools, and documentary analysis gave a broad picture of the issues under investigation. The case study covered four main aspects: the experiences of students and specialists in four mainstream schools, specialists' understanding of the term 'inclusive education', students' and specialists' perceptions of the barriers to inclusion affecting DHH students, and their perceptions of the support required to promote inclusion for DHH students.

The findings suggest that practices of education in mainstream schools for DHH students mainly represent an ethos of integration rather than inclusion. This suggested

a consensus that there has been a delay in implementing inclusive provision. Although specialist teachers demonstrated multiple understandings related to the phrase “inclusive education”, human- and physical-related factors constituted the main barriers to the support required.

This study therefore opens a debate around issues of social inclusion within a sociocultural context that places Saudi and Islamic values in educational practice, which implies that change is not a simple issue of addressing participants’ perceptions of the social phenomenon of inclusion; rather, a comprehensive process is called for that should address all sociocultural factors that shape participants’ perceptions. While these issues were discussed with caution and are interrelated with other contextual issues such as the workload, the lack of engagement in professional development for school staff and ineffective arrangements for the provision of physical support, it was argued that the Saudi policies currently lack clarity in decision-making about inclusion and its practices. Recommendations are made to address this in order to work towards inclusive education for DHH students in the Saudi context.

Dedication

To the soul of my mother, father, brother, and brother's wife who passed away before this work saw the light.

To my sons, daughters, wife, brothers, sisters, cousins, colleagues, friends and all my family relatives who wished good luck for me and who have been a source of motivation throughout this journey.

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List of Abbreviations

AOA = Auditory-Oral Approach

AVA = Auditory-Verbal Approach

BBP = Bilingual-Bicultural Philosophy

BSL = British Sign Language

CDS = Communication Disorder Specialist

CDT = Communication Disorder Teacher

CRPD = Convention on the Rights of Persons with Disabilities

D = Deaf

dB = Decibels

DGSE = the Directorate General of Special Education

DGSEPs = the Directorate General of Special Education Programs

DHH = Deaf and Hard of Hearing

DoOSE = the Document of Organizing Special Education

DoRRSEPs = the Document of Rules and Regulations for Special Education Institutes and Programs

DS = Deaf Student

DSC = Deaf Students School

DSP = Deaf Student Parent

GSSE = the General Secretariat for Special Education

HH = Hard of Hearing

HHS = Hard of hearing Student

HHSC = Hard of Hearing Students School

HHSP = Hard of Hearing Parent

IEP = Individual Educational Plans

IQ = Intelligence Quotient

KSCDR = King Salman Centre for Disability Research

LEA = Local Educational Authority

LPD = the Law of Persons with Disabilities

MoE = Ministry of Education

PCPD = Provision Code for Persons with Disabilities

SEN = Special Educational Need

ST = Specialist Teacher

TCP = Total Communication Philosophy

UNESCO = the United Nations Educational, Scientific and Cultural Organisation

Chapter One: Introduction

1.1 Research Background

Inclusive education for schoolchildren with Special Education Needs (SEN), is globally considered to be one of the most critical issues in education, especially regarding how it is understood and practised (Hornby, 2014). The inclusion of students with SEN is considered '*essential to human dignity and the enjoyment and exercise of human rights*' (UNESCO, 1994: 11). Therefore, the concept of inclusive education and the prevailing attitudes towards it have received considerable attention in countries such as the USA and the UK (Hung and Paul, 2006). The experience of these contexts and their attempt to define and understand inclusion have the potential to be adapted and used to great effect in the Kingdom of Saudi Arabia, which is also seeking to develop education for SEN individuals as part of its Saudi vision 2030 (Ministry of Education of Saudi Arabia, 2019).

In recent years, the Saudi Arabian government has become increasingly interested in inclusive education for students with SEN (Alquraini, 2010). Saudi Arabia is currently moving towards supplying fully inclusive education for all its students with SEN. According to the Minister for Education, the future long- and short-term plans of the Directorate General of Special Education accommodate a wide range of strategies (Al-Mousa, 2010; Ministry of Education of Saudi Arabia, 2019) but there have been challenges in their implementation.

It has been suggested that if inclusive education is to be successfully implemented in future, it is necessary to examine the experiences and perceptions among the individuals currently involved in mainstreaming experience (Ainscow, 2005b).

1.2 DHH Context

Doherty (2012a) argues that DHH students present a special case of special educational needs in inclusion: hearing loss is a particular and vital issue affecting engagement and communication within the domestic community. Deaf culture may also constitute pressure on the principles of effective inclusive education. Furthermore, some DHH students' needs cannot be met successfully in mainstream schools, so it is important to explore what is really relevant to DHH students (Doherty, 2012a).

In the experiences of or provision for students with hearing loss in the Saudi context, DHH students and the specialist teachers who work with them are currently segregated either into special schools or into special units within mainstream schools. According to the Saudi 2030 Vision, in the future, they will all be involved in Saudi Arabia's new, inclusive, education project (Ministry of Education of Saudi Arabia, 2019). The students' and specialists' perceptions and experiences of mainstreaming are critical if a successful transition is to be ensured. In some other countries, hard of hearing (HH) students are accommodated in mainstream schools, and a few studies have investigated their experience (Eriks-Brophy *et al.* , 2007). There is, however, a need for studies that focus on inclusive education for DHH students within the Saudi context (Alquraini, 2010). Here, because segregation by gender is part of the culture, this possibly puts additional pressure on the concept of inclusion.

In the case of DHH students, their engagement in Saudi mainstream education may be either full- or part-time. Before the promulgation of Provision Code for Persons with Disabilities (PCPD) in 2000, DHH students attended special schools and institutes. This code now demands that public schools should secure professional help and create appropriate opportunities to accommodate students with SEN in preparation for

being integrated into the mainstream school (Al-Mousa, 2010). At all events, DHH students in Saudi Arabia face labelling, lack of understanding, and imbalanced provision (Allothman, 2014; Alshahrani, 2014).

1.3 Positionality

My research for a PhD has been a journey, preceded by my previous journeys and earlier work that I have done; this earlier work provided the motivation and rationale for studying this theme and helped me to identify the issues in the field. As a specialist in the field of DHH education, I graduated in 1999 as a classroom teacher for DHH students and have worked in this area ever since. The first year I taught Deaf students in a special school, before the issuing of the promulgation of Provision Code for Persons with Disabilities (PCPD) in 2000; this gave me an awareness of what segregated the provision is like. After the introduction of the Code, my experiences extended to include familiarity with mainstreaming provision. These experiences have given me first-hand knowledge about the provision, teaching and communication methods (both spoken and sign language) for DHH students. My teaching experience has also given me familiarity with the contexts of both the community of Deaf culture and the community of education practice for DHH students. Therefore, I consider myself as a member of the community of education practice for DHH students. Another experience that has fed me academically was my involvement in graduate studies towards a master's degree where, later in 2011, I was given a chance to be a faculty member in the department of special education in a university context.

With these experiences and my position in the academic field, it is necessary for me to take responsibility regarding the Saudi 2030 Vision, as educationalists have their role to play in improving the aspect of education. I have been inspired by the work of

Ainscow (2005a) about how to study and develop a successful inclusive education programme across different cultures, at any stage of inclusion, by *“those in any education system intending to review their own working”* (Ainscow, 2005a: 9). This research therefore positions me as one who is seeking to offer a set of recommendations for Saudi policy that align with the 2030 Vision. Influenced by the work of Ainscow, I have focussed on examining current experience and knowledge, exploring barriers that might hinder participation but also identifying facilitators to support the learning process, in order to encourage change.

During my studies, I have become aware of what provision for DHH students is like elsewhere as part of global moves towards meeting students' human rights. One of their rights concerns the quality of their education and ensuring that all educational options, such as effective inclusive education, exist and are available to all. Through my research I therefore also support progress towards Sustainable Development Goal 4 as part of the global movement towards using all resources thoughtfully, both human and physical, for the benefit of future generations and the sustainability of the planet (United Nations, 2015). More details about my research position is discussed in Chapter Six.

1.4 The Aim

This research aims to help the Saudi education system to translate inclusive education principles in a practical way that will be appropriate to the Saudi context. Moreover, this study aims also to bring the voice of those who are the greatest experts on mainstream education of DHH students from the edges of the school community to the centre of power and decision-making. It is to make sure that their voices are heard

as a key group in the development of policy and practice of DHH education and provision. The objectives associated with this are described below.

1.4.1 Objectives

1. To document the experience of DHH students and specialist teachers in mainstream schools in Saudi Arabia.
2. To examine the concept of inclusive education and how it relates to specialist teachers.
3. To identify dimensions that support successful inclusive education of DHH students and to highlight the barriers to inclusion.
4. To develop a set of recommendations for Saudi policy that support the functional inclusion of DHH students.

1.5 Overview of the Research

This thesis is organized into nine chapters. Following this introduction, chapter two provides essential background information on the Saudi context. Because of the importance of understanding social and cultural context, this includes history of special education, Saudi policies and educational system, background of DHH education and mainstreaming movement. To make sure that the context of provision for DHH students is understood, Chapter (3) presents a specific focus on Deafness beginning with definitions and classification of hearing impairment, Deaf culture, communication philosophies and educational placement for DHH Students, and characteristics of DHH students.

Having explored the context of the study, the thesis then moves to a review of the literature on the concept of inclusive education in general and the influence of

sociocultural contextual differences of previous studies of educational provision of DHH students. Chapter (5) introduces Communities of Practice Theory as the main Theoretical Framework for this study supplemented by Disability Models and Ainscow's Model of inclusive education. Chapter (6) turns attention towards the empirical work carried out to explore the experiences of DHH students of mainstream education in Saudi Arabia. Methodological assumptions are stated before setting out the design of the study as a qualitative single case study using a range of methods. Issues of trustworthiness and ethical consideration are also addressed.

The study's findings are shared and discussed in Chapters (7) and (8) under seven key themes emerging from qualitative analysis of interviews, observations, and documentary data. These include current experiences of DHH students in mainstream schools; and participants' views about how to move towards inclusive education for DHH students in Saudi Arabia. Finally, the concluding chapter draws together these findings and offers implications and recommendations for policy, training and practice, and speculates on future directions.

Chapter Two: Special Educational Needs in the Saudi Context

2.1 History of Special Education in Saudi Arabia

Before special education was developed in Saudi Arabia, disabled people were likely unable to benefit from the existing public schools without special education services. For the last seventy years, special education has been gradually developing to provide education for disabled students (Aldabas, 2015).

The literature shows that special education in Saudi Arabia began as early as 1950, initially through the personal efforts of some blind people. Three blind Saudis (Alhusain, Almufda and Alswaid) learned the Arabic alphabet through the Braille method and went on to establish special education programmes for blind people in 1953 (Al-Mousa, 2008). The Saudi government initially provided the opportunity for blind students to learn through Braille and since then programmes for the blind programmes have been extended. In 1960, the Ministry of Education (MoE) created the first special education institute, in Riyadh, to teach blind students (Ministry of Education of Saudi Arabia, 2019). Here, blind students studied the same national curriculum as sighted students with some visual and hearing adaptations in the pedagogy (Aldabas, 2015). This evidence suggests that was the start of special education in Saudi Arabia.

The first Department of Special Education was established in 1962, through the Ministerial Decree No. 2385, to provide services for the deaf, blind and those with mental disabilities (Ministry of Education of Saudi Arabia, 2019). This was followed by the gradual establishment of special schools and institutes. A school was established in Riyadh for blind students in 1964, for deaf students (one for boys and another for girls) in 1964, and for students with mental disabilities in 1971 (Ministry of Education of Saudi Arabia, 2019). These institutions provided education in Islam, social sciences,

and the Arabic sciences (Aldabas, 2015). Subsequently, special schools were established for the blind, deaf and those with intellectual disability in different regions of Saudi Arabia, including Makkah, Anayzah, and Hofuf city in 1963, Medina and Qatif in 1967, and Buraidah in 1968 (Ministry of Education of Saudi Arabia, 2019).

During the years 1960–1987, the number of special schools for blind, deaf and mentally disabled students increased to 27. Of these, 10 were for Deaf students (Ministry of Education of Saudi Arabia, 2019), and education was provided for them in both special day schools and residential schools (Aldabas, 2015). In 1972, under the Ministerial Decree No. 40/36/4/61, the Special Education Department became known as the Directorate General of Special Education Programmes (DGSEP) (Ministry of Education of Saudi Arabia, 2019). Two years later (1974), the Ministerial Decree No 40/36/674 established three departments in the DGSEP: the departments of Blind Education, Deaf Education, and Intellectual Education. Each of these now had professional supervisors who specialised in their own discipline so that their department could provide special education programmes and services (Ministry of Education of Saudi Arabia, 2019).

In 1984, under resolution No. 3189, the DGSEP became known as the General Secretariat for Special Education (GSSE). This later included the Blind, Deaf and Intellectual education departments and also the book press department and a technical body containing experts and specialists who would conduct research into developing special education programmes (Ministry of Education of Saudi Arabia, 2019)

The number of special schools in Saudi Arabia for blind, deaf and intellectually disabled students (both boys and girls) doubled during the period 1987–1990. Through

this time, students with SEN were educated in special day schools and a few residential schools (Aldabas, 2015).

During the period 1990 to 2000, the responsibilities of the GSSE included those with mild to moderate intellectual disabilities, autism, hard of hearing, and hearing impairments. These students were educated in full-time special education classrooms in public schools (Al-Mousa, Al-Saratawi, Al-Abduljabbar, Al-Batal, & Husain, 2008).

2.1.1 The Directorate General of Special Education (DGSE)

In 1997, school principals in the Saudi MoE noted that the title of the GSSE was not aligned with the nature of the special education programmes and services required by students with SEN, and made a proposal to the Minister of Education to rename it The Directorate General of Special Education (DGSE). In 1997, this proposal was accepted and it was renamed accordingly (Nader, 1980).

The DGSE included additional categories of students with SEN. The DGSE now provided services to the hard of hearing, hard of sight, those with learning difficulties, multiple disabilities, behavioural and emotional disorders, autism, communication disorders, physical disabilities and also to those with exceptional talent (Ministry of Education of Saudi Arabia, 2019).

The history of Special Education in Saudi Arabia indicates the efforts of blind and disabled individuals in forming special education departments and DGSE as governmental agencies to provide special education services. An experience of alignment with foreign concepts such as 'segregation' and 'integration' has appeared, as these perhaps not been contradicted by Islamic values.

2.2 Saudi Policies

Saudi educational policy is derived from Islamic principles and values and addresses an ethical function by meeting the special educational needs and the rights of disabled students. It is also responsible for the education, plans, curriculum, methods of administration, technical work, educational equipment and tools for all students (Alshahrani, 2014). The educational policy in Saudi Arabia stems from Islam, and it controls all government duties, ethics, dogma, policies, and laws, resulting in a coordinated system. The Islamic intellectual movement provided a model to direct the provision for disabled persons (Ross, 1951; Kirtley, 1975, cited in Al-Mousa, 2010).

The Saudi Ministries of Education, Social Affairs, and Health have made a considerable effort to create Laws and Policies that meet the needs of disabled individuals. These policies have been periodically released since the start of special education for disabled persons in Saudi Arabia (Al-Mousa, 2010). Some of these laws and policies have played a significant role in Saudi history. I will, therefore, outline these policies in the sections that follow.

2.2.1 The Law of Persons with Disabilities (LPD)

Passed in 1987, the LPD was the first law in Saudi Arabia concerned with disabled individuals. This was the initial public-school legislation for disabled individuals, providing protection and precaution programmes, early intervention programmes, evaluation and diagnostic steps, rehabilitation programmes and the services of professionally trained specialists. Furthermore, this law aimed to secure independent living for disabled individuals by assisting them through a better understanding of their needs and the services available to them (Nader, 1980).

2.2.2 Resolution No16/12

Twelve years later, in 1999, the Saudi Consultative Council issued the resolution No16/12, which stated the importance of expanding special education programmes to accommodate all categories of students with SEN. Additionally, this Resolution encouraged Saudi universities to train Saudi teachers to meet the national need (Al-Mousa, 2010).

2.2.3 Provision Code for Persons with Disabilities (PCPD)

One year later, in 2000, the PCPD was issued which prompted further action towards the mainstreaming of students with SEN. This code demanded that public schools should secure professional services and offer appropriate opportunities to accommodate students with disabilities and to prepare them for integration into mainstream schools. The services to be provided within public schools included health provision, recreation, psychological, social, educational, and career services, all to be provided free (King Salman Centre for Disability Research [KSCDR], 2019). The application of this code led to the transfer of students with SEN from segregated into integrated schools, with remedial intervention programmes provided within the mainstream schools.

2.2.4 The Rules and Regulations for Special Education Institutes and Programmes (RRSEP)

In 2002, the Ministry of Education issued the RRSEP. This document provided for those with blindness, deafness, hearing impairments, learning disabilities, intellectual disabilities and autism to be integrated into special classrooms in mainstream schools. It stipulated that all categories of students with SEN have the right to free education, free SEN services, early intervention and individual educational plans (IEPs) (Ministry

of Education of Saudi Arabia, 2019). Moreover, this document supported a positive attitude towards inclusive education by confirming that the mainstream schools are the natural place for students with SEN to be educated and integrated into the Saudi community (Nader, 1980). This document explains the roles and practices for each group of people and agencies involved in the education of students with SEN.

2.2.5 Convention on the Rights of Persons with Disabilities (CRPD)

In 2008, the government of Saudi Arabia signed the CRPD and its Protocol, giving disabled students in Saudi Arabia the right to be included at all stages of their education in public schools (Al-Mousa, 2010). Subsequently, in 2009, the CRPD was included on the agenda of the regional symposium of the Arab League. In doing this, the Saudi Government was wanting to ensure that other Arab countries included the implementation of the CRPD in their future aims. Article no (24) of the CRPD indicates the importance of all members providing free and inclusive education for students with SEN of all ages and at all levels of schools (Freeman *et al.*, 2015). However, there have been delays in implementing this protocol despite its having been signed.

2.2.6 The Resolution No 62/119

In 2010, The Saudi Consultative Council issued resolution No 62/119, which described the expansion of the mainstreaming programmes to accommodate all children with SEN. Furthermore, the educational aims showed a gradual shift towards inclusive education to be achieved for all, and the provision of the financial and human resources required to ensure the success of inclusive education in the Saudi context (Al-Mousa, 2010).

2.2.7 The Document of Organizing Special Education (DoOSE)

The Ministry of Education revised the RRSEP of 2002 to launch the DoOSE in 2016, which elaborated on the educational practices required. The DoOSE concerns itself with the practices and roles of all people and agencies involved in the mainstream schools. For example, the budget, the required support, and the responsibility of each member involved is clearly stipulated (Ministry of Education of Saudi Arabia, 2019).

However, Alquraini (2010) argues that although these policies support equal rights for disabled individuals, they are not based on ideal implementation. He adds that the application of these laws on the ground was hard owing to the difficulty of crossing between reality and the implied goals. He suggests that further improvement is required in the Saudi context before inclusive education can really be achieved.

A primary concern is these laws and policies have played an essential role in shaping the practices of education and organising the functions of each person and agency involved in the education of disabled individuals. The Saudi policies include different laws supporting the rights of DHH and disabled individuals, but educationally policies talk more about 'mainstreaming' with little clarification about how to put this somewhat out-dated concept into practice (see the discussion in Section 9.2.2). In practice and in policy, there tends to be a discernible overlap between and interchangeable use of the concepts of integration and inclusion.

2.3 Mainstreaming of Disabled Students in the Saudi Context

In earlier times, disabled students were largely included in education in Saudi Arabia. However, aligning with global trends, the Saudi government began to segregate the disabled students by establishing the first institutes for blind students in 1960 (Al-Mousa, 2010) as described above in Section 2.1. However, since 1996, the MoE has

aimed to integrate students with SEN due to the increased understanding of the importance of mainstreaming for these students. Therefore, in 2000, the MoE released the Provision Code for Persons with Disabilities (PCPD), which insisted that public schools secure professional services and provide appropriate opportunities to accommodate students with disabilities in preparation for integration (Al-Mousa, 2010; KSCDR, 2019). Subsequently, in 2002, the MoE issued the RRSEP giving access to mainstream schools for those students disabled by blindness, deafness, hearing impairments, learning disabilities, intellectual disabilities and autism. Moreover, according to the RRSEP, all categories of students with SEN have the right to free education, free SEN services, early intervention and individual educational plans. This document confirmed that mainstream schools are the natural place for students with SEN to be educated and integrated into the Saudi community (Alquraini, 2010; Ministry of Education of Saudi Arabia, 2019).

The first movement away from segregation occurred between 1990 and 2000 when the MoE integrated pupils with mild to moderate intellectual disabilities, autism, communication disorders and hearing impairments into special education units within regular schools (Aldabas, 2015). However, the real beginning of mainstreaming in Saudi Arabia for students with SEN to all stages of school stages began with the PCPD in 2000 and the RRSEP in 2002. As described by Alquraini (2011), implementation of mainstreaming has been achieved in two ways. First, there is partial mainstreaming where the students with SEN study in special classrooms (units) within mainstream schools, with integration into some regular classes and full participation in extramural activities. Second, complete mainstreaming provides special education support for students with SEN inside the regular classroom. In addition, other services and the adaptation of the national curriculum can be provided by the resource room, by

peripatetic teachers and through consultant teacher programmes. The students with SEN are educated in the regular classroom with their peers for most of the school day (Nader, 1980).

However, there have been doubts about the benefits to students from the second option, and whether all students with SEN can be included in this arrangement or some of them.

Al-Mousa (2008) mentions that there was a rapid increase in mainstreaming programmes in 2000 and 2002, and this expanded from 226 SEN programmes to 2577 programmes in Saudi Arabia with the new threefold system:

1. Special classes are equipped with special services, and students with SEN are taught by special education teachers.
2. Resource rooms are equipped with special services, and students with SEN are taught by regular teachers with some help from the resource room. students with SEN spend most of their time in regular classes except for the time needed for support.
3. The consultant and peripatetic teachers' programmes: here students with SEN are taught by their regular teachers all the time, and support is provided to enable the general teacher of the regular classroom to teach the SEN student. The consultant and peripatetic teachers both provide support for the general teacher, while the families are serviced by the consultant teacher only.

However, Al-Mousa concludes that there are an insufficient consultant and peripatetic teachers' programmes in Saudi Arabia (Al-Mousa, 2008). The mainstreaming provision described above and the lack of human resources opens a need for inquiries investigating the current practices in the education community of DHH students in the

Saudi context. The improvement in the education of DHH students requires an examination of the preparedness of human resources and investigation into how that might stand as a factor likely to affect their success in inclusion.

Mainstreaming of students with SEN in Saudi Arabia has been defined by the DoOSE, (2016; 8) as *“Educating children with special educational needs in regular education schools, and providing them with special education services”* (Ministry of Education of Saudi Arabia, 2019). Regarding the benefits to students of the above programmes, the UNESCO Preparatory Report for the 48th ICE on Inclusive Education indicated that mainstreaming in Saudi Arabia included two disabled groups. First are the communication disorder and physical disability students who are included in regular schools and given significant support by the special education services. Second are the blind, deaf, mentally disabled, autistic and those with multiple disabilities who are provided for in special classrooms belonging to regular schools with the claim that it takes too much effort for these students to be educated with their peers inside the regular classroom. However, students with behavioural and emotional disorders, and those who are hyper-active or inattentive, are not covered (UNESCO, 2007).

There could be a point of doubt here, as to whether the UNESCO list represents inclusive education for all students with SEN' categories or whether there are other terms that could be used here. This point was supported by Al-Mousa (2008) who claims that inclusion in Saudi Arabia still requires important endeavour in comparison with countries who have already applied this provision.

Currently, there two groups of students with SEN benefitting from the two mainstreaming programmes in Saudi schools. The Saudi MoE (2019) lists these as follows: The first programme consists of gifted and talented pupils, those with learning

disabilities, physical disabilities, behavioural difficulties, low vision, communication disorders, and children with dyslexia; these categories are all included in regular schools with special education services provided for these students in their regular classrooms. The second programme includes students who are blind, deaf, hard of hearing, mentally retarded, multi-disabled and autistic; this group are serviced in special classrooms in regular schools and, as far as possible, join in the regular classroom, and fully exploit the activities available in the regular school (Ministry of Education of Saudi Arabia, 2019). In addition, special education services, nature of the disability, severity of disability, grade in the school, and some other factors all have an effect on the process of withdrawing students from the regular classroom (Al-Mousa, 2010). However, although the first option appears to be more inclusive, it does not include all students with SEN as the rest of them are still traditionally taught in special education classrooms.

Reflecting on the experience I have had with DHH students in mainstream schools in Saudi Arabia, I have noted some resistance to modernisation and advances in their education in mainstream schools. Moreover, numerous programmes for DHH students still work with the system of special units in a regular school due to different reasons and barriers. An alternative point of view is that inclusion has existed throughout Saudi history. However, it might have been different from the current international concept of inclusion, as it took place in different places from modern schools (in mosques). Moreover, some practices of inclusive education have appeared, but only for some benefits to students who are hearing students with minor speech and language disorders (not students with hearing impairment).

2.4 Justification for Inclusive Education in Saudi Arabia

The need for the Saudi educational system to develop a successful inclusive education programme has been discussed in the literature. Al-Mousa (2010) argues that the following justifications not only support inclusive education, but we are to believe that regular schools are the natural place for disabled children who are currently segregated into artificial environments. He mentions the following justifications for inclusive education:

1. It is in accord with Islamic principles regarding disabled people.
2. Previous studies on inclusive education have proven its positive effect on the disabled people and on their surrounding environment.
3. Researchers and experts have critically investigated special schools/institutions.
4. Segregation is expensive.
5. Inclusive education benefits disabled students and their families.

However, Al-Mousa also claims that there is no great gain without overcoming difficulties and barriers, and he identified the dominant challenges facing inclusive education in Saudi Arabia as follows:

1. Families of students with SEN are afraid of the inclusive process.
2. Negative attitudes are held towards inclusive education and students with SEN.
3. Regular school buildings are insufficiently prepared to accommodate the students with SEN.
4. There is a danger of accepting students who are not suitable into inclusive education.

The MoE has been gradually tackling these difficulties, and the long- and short-term plans of the DGSE are dealing with them one by one as they work towards inclusive education (Nader, 1980).

However, the barriers and support mentioned by Al-Mousa (2010) are useful for the practical consideration of what is involved in the inclusion of DHH in Saudi Arabia. Among the Arabic countries, the Saudi mainstreaming experience is seen as advanced in comparison with its neighbouring countries. Inclusion of students with SEN has been given considerable prominence. This can be due to the acknowledgement of the educational rights of disabled children.

Currently, approximately 746 mainstream schools having special classrooms for students with mild to moderate disabilities; there are roughly 316 programmes for DHH students throughout the Saudi Arabian region (Ministry of Education of Saudi Arabia, 2019). Students with learning disabilities receive services from resource rooms in 1417 programmes provided in part-time special education services during their school day (Al-Otaibi & Al-Sartawi, 2009). However, the severely disabled and those with multiple disabilities are still educated in special schools (Nader, 1980). The current statistics of the DGSE indicate that approximately 27,439 students with SEN are studying in special education programmes in either special or mainstream schools (Ministry of Education of Saudi Arabia, 2019). However, the exact number of students with SEN in the Saudi context needs to be addressed cautiously owing to a lack of statistical programme information in the wider Saudi context (Allothman, 2014; Alshahrani, 2014).

The principles of inclusive education are unlikely to contradict Islamic values. Improving the provision for DHH students in Saudi Arabia by inclusive education may not be impossible by following these international precedents.

2.5 Preparing for Inclusive Education in Saudi Arabia

This section has collected several indicators from Saudi literature as the means of preparation for inclusive education in the Saudi context. The need for special education services can be related to the condition of the students with SEN. Therefore, before including students with SEN in the regular classroom, the educational environment in Saudi Arabia should be considered. Placing students with SEN with their peers is difficult because of the adjustments required in the classrooms, to textbooks, the curriculum, guidance, and assessments (Alquraini & Gut, 2012). Aldabas (2015) supports these points and suggests that inclusion in Saudi Arabia should take into account the different factors that would need adaptation before the benefits of inclusion could be realised. He refers to these factors as adjusting the curriculum, assignments, the syllabus, timetables, teaching methods and the way that students take their homework, whether orally or written.

Regular teachers in regular classrooms generally lack the experience to deal with SEN student (Alshahrani, 2014). Training programmes in Saudi universities and teacher colleges should therefore add classes teaching special education to their graduation curriculum (Aldabas, 2015). These courses should cover special educational needs, inclusive educational practices, interventions, and special teaching methods (Romi & Leyser, 2006). Inclusion in Saudi Arabia should be underpinned by a positive perception by regular teachers (Allothman, 2014). The existing school staff also need to be trained and their knowledge about inclusive education and students with SEN

needs to be improved. The regular teachers can be upskilled through the vocational community (Aldabas, 2015). For these reasons, special education departments have been established throughout Saudi universities (Ministry of Education of Saudi Arabia, 2019).

These concerns along with the Saudi 2030 Vision could be indicators of the need to improve the education system as a whole including the provision for students with SEN/DHH.

2.6 Background to DHH Education in Saudi Arabia

As mentioned earlier, the Department of Special Education (now the DGSE) was established in 1962. Since then, DHH education has been supervised by this directorate. The early stages of DHH education were in 1964 when special schools/institutes were established, one for males and one for female students, initially in Riyadh and then in Jeddah, in 1971. Subsequently, more special schools and institutes were established in different cities around the Kingdom of Saudi Arabia (Al-Mousa, 2008). Gradually, special schools for the Deaf were established in different cities in Saudi Arabia for different ages. These special schools used sign language and offered provision for multiple stages and degrees of deafness; however, the curriculum at these schools was shorter than the curriculum at the mainstream schools and included only Islam, Arabic sciences and maths (Aldabas, 2015). This maybe represents the first alignment of the Saudi context with the international establishment of special education and its services, as well as segregation as a foreign concept.

The literature on Saudi DHH education mentions several stages. Between 1960 and 1987, the number of special schools or institutes for the deaf reached 10, with some special day schools and some residential schools. This number reached 14 during the

period between 1987–1990 for both boys and girls. Moreover, the teachers of the deaf students acquired varied skills as they specialised in deafness and sign language (Saudi Association for Deaf, 2019).

Mainstreaming for the DHH started when the Saudi MoE opened the AL-Mohalb Bin Abi-Sufrah programme for hearing impaired students in 1989 in Riyadh as a programme where special classrooms were included within a public school and where the national curriculum was taught (Al-Mousa, 2010; Aldabas, 2015; Saudi Association for Deaf, 2019). Before this, HH students, both mild and moderate, studied in the same special schools/with the same special curriculum as the Deaf (Al-Mousa, 2008).

However, the real start of mainstreaming Deaf students into public schools started between 1990 and 2000. In 1990 the first experience for Deaf students occurred in the northern area of the Saudi kingdom, in Aljouf Sakaka (Saudi Association for Deaf, 2019). Subsequently, both the mainstreaming programmes and the segregated schools for Deaf students continued to be extended, and in 1997, there were nine mainstreaming programmes, 17 special schools and four centres for hearing and speech services in different sites around Saudi Arabia (Al-Mousa, 2010; Saudi Association for Deaf, 2019). Subsequently, the DGSE has established a large number of mainstreaming programmes in general schools for DHH students based on the integration law (Alzahrani, 2005). Since then, DHH education in Saudi Arabia has improved and spread to include all DHH students around the Kingdom. After the experiences of DHH integration in 1989 and 1990 were successful, the Ministry of Education planned to extend DHH into mainstream and opened mainstreaming schools for DHH students rather than special schools. Nevertheless, special Deaf schools have also expanded in different cities around Saudi Arabia, increasing at a steady rate in response to the needs of each area (Aldabas, 2015).

This likely represents also the second alignment of the Saudi context with the international efforts of mainstreaming; as well as, arguably, adapting the integration as a foreign concept.

2.6.1 Peripatetic Teachers and the Resource Room Programmes

Expanding from the mainstreaming programme in Saudi Arabia, the peripatetic teacher programme was established in 1997 to provide services to students in public schools with hearing loss or communication disorders. This teacher offers psychological, social, academic and educational support to both the students and their teachers, and currently, there are five peripatetic teachers in Riyadh (Al-Mousa, 2010; Saudi Association for Deaf, 2019; Ministry of Education of Saudi Arabia, 2019). Furthermore, in 1998, the MoE initiated the Resource Room Programme, providing services for students with various degrees of hearing loss (Al-Mousa, 2010). These services meet the needs of hearing students with speech and language disorders who can generally cope in mainstream classes but require some additional services, as well as for those students who live away from the big cities and have difficulty in obtaining regular transport (Al-Turki, 2005). In 2007, there were 11 Resource Room programmes in the Kingdom, two of which are in Riyadh (Al-Mousa, 2010).

2.6.2 Consultant Teacher Programme

The consultant teacher program is one of ways in which DHH students are helped to be included in mainstream classes. The consultation program began in 1999 and the function of this teacher does not differ much from that of the peripatetic teacher. However, the consultant teacher is a teacher who has specialised in DHH education and provides advice, consultation and services for teachers of regular classrooms regarding the DHH students' needs and how to meet them (Ministry of Education of

Saudi Arabia, 2019). Currently, statistics from the Saudi Ministry of Education (2019) indicate that there are six consultant teachers working in Riyadh. It appears that the number of consultant teachers is low and may not meet the needs of DHH students in regular classrooms.

The peripatetic and consultant teachers along with the resource room programmes in the Saudi education system for DHH students are an important indicator of inclusive practices. However, the number of these programmes is very low in the Saudi context as a whole and in Riyadh in particular. This puts also doubt about their effectiveness for all DHH and communication disorder students as an inclusive provision.

2.6.3 Special Schools and Mainstreaming Programmes for DHH

After the Resolution No16/12 (1999), PCPD (2000), and RRSEP (2002), the number of special institutes and mainstreaming programmes for DHH reached 110 in 2002, which included five programmes for multi-disability students (Al-Mousa, 2010; Saudi Association for Deaf, 2019).

At the beginning of the 2005 school year, the MoE instructed all special institutes and mainstreaming programmes for Deaf students to apply the national curriculum in all primary schools. It was applied to year one in 2005, and in the next school year, 2006, it was applied to year two of primary school. The MoE also required all teachers of Deaf students to use a diversity of visual illustrations, teaching methods and hearing aids (Ministry of Education of Saudi Arabia, 2019).

In 2006/2007, the number of special schools and mainstreaming programmes for DHH students had reached 283, and the number of Deaf students receiving services was 4916. These statistics show that there were ten residential institutes for the Deaf, 20 special day schools/institutes, and 253 mainstreaming programmes (Al-Mousa, 2010).

Progressing through the years, Al-Sharif (2012) claims that in 2012 there were approximately 14,374 students with hearing loss in Saudi Arabia who received educational services in DHH programmes and schools, out of a total number of roughly 88,000 individuals classified as Deaf or Hard of Hearing (Al-Sharif, 2012, cited in: Alothman, 2014). At present, the statistics of the MoE (2019) indicate that there are roughly 316 programmes for DHH students in mainstream schools throughout Saudi Arabia. This could suggest that during the last two decades, the Saudi educational system has been interested more in the quantity rather than the quality of the mainstream programmes for DHH students.

2.6.4 Provision for DHH Students in Saudi Arabia

Launching increasing numbers of mainstream schools for DHH students has enabled the MoE to make great strides towards the observation of equal human rights for the disabled. It has been a considerable achievement to progress towards inclusion of the DHH. However, regular schools are also faced with big challenges (Al-Turki, 2005). Saudi families that have DHH students are extremely interested in having their child educated in a mainstreaming programme rather than a special school (Alzahrani, 2005). Furthermore, the Al-Amal institutes for Deaf students have been converted into centres for in-service training, support centres for information and assistance. They retain only children from the categories of severe Deafness and multi-disability who could not be adequately served in the mainstreaming programmes for DHH students (Al-Mousa, 2010).

Since 1996, the vision of the MoE has been to place students with SEN in competent schools and to acknowledge that to be their natural place. Subsequently, this aim has been seen as a priority in planning the future reform of the educational system (Al-Mousa, 2010). It can be argued that inclusive education by mainstreaming into regular

schools should be the norm for school placements, resulting in spatial and locational integration, and only then, the other aspects should be considered, as is the case elsewhere. The Saudi MoE aims, during the first stage, to achieve what is called the 'least restrictive environment'. This vision was derived from the United States Policy where priority is given to DHH being mainstreamed with their hearing peers (Al-Mousa, 2010; Ministry of Education of Saudi Arabia, 2019).

However, despite claims that inclusive education exists on the ground in the Saudi context, the reality is far from ideal for inclusive education. I would suggest that the current experience involves mainstreaming, self-contained or special classrooms, or inclusive schools. While locational integration in a regular school is considered an equal right, it still cannot be seen as full inclusion or complete involvement (Vitello & Mithaug, 2013).

2.6.5 Hearing Impairment Classifications in the Educational Saudi Context

The Department of Hearing Impairment of the MoE (2019) defines hearing impairment as

“problems preventing the hearing organ from its function or reducing an individual’s ability to hear various sounds, where the hearing loss ranges between mild and profound, resulting in hard of hearing of various degrees of severity, and finally, deafness” (Ministry of Education of Saudi Arabia, 2019).

Hearing impairment is classified by the Saudi MoE (2019) by the degree of hearing loss:

1. Mild hearing loss: an individual has hearing loss ranging between 20–39 Decibels (dB).
2. Moderate hearing loss: between 40–69 dB.
3. Severe hearing loss: between 70–90 dB.

4. Deaf or extreme hearing loss: an individual who has hearing loss from 91 dB and above.

(Ministry of Education of Saudi Arabia, 2019)

Individuals with mild and moderate hearing loss can be educated in mainstream schools with the support of services provided by peripatetic, consultants or the resource room programme, or they can be educated in mainstreaming HH students' programmes with the national curriculum given to normal students (Ministry of Education of Saudi Arabia, 2019). However, the decision relating to the type of education is based on the level of need and the available services. There are 16 mainstreaming programmes for Hard of Hearing students in Riyadh (Saudi Association for Deaf, 2019). Individuals with deafness and severe hearing loss are educated either through special schools/institutes or in special classes within a public school with the national curriculum (Ministry of Education of Saudi Arabia, 2019). There are two mainstreaming schools with special classes within public schools in Riyadh (Saudi Association for Deaf, 2019).

According to the Ministry of Education in Saudi Arabia (2019), DHH students in the Saudi Kingdom can be educated in one of three types of school:

1. **Day schools:** this approach has two patterns for the education of the DHH student. First, special schools/institutes are the oldest form of education for the Deaf in the Saudi Kingdom and have been going since 1964. These are completely independent, and entirely segregated from mainstream education. Second, there are special classes within inclusive public schools. This pattern is more widely spread than the other patterns of DHH education, and it has

teachers who are specialised in DHH education. In both patterns, the students are provided with transport between school and home.

2. **Evening schools:** These provide education for older DHH students and for illiterate adults through special evening schools/institutes or inclusive schools where special classes are held within public schools during the evening.
3. **Residential institutes:** These provide educational, social, health, entertainment and physical services, including hospitality, to Deaf students from outside of the cities.

All DHH students to be educated in one of the above special institutes or mainstreaming programmes are required to meet some criteria (Ministry of Education of Saudi Arabia, 2019), such as:

1. Hearing loss should be between 35–69 dB and be diagnosed by a specialist team.
2. Intelligence Quotient (IQ) score should not be under 75 on the Wechsler Intelligence Scale, or under 73 on the Stanford Binet scale.
3. The student should have no other disability.
4. The student will be accepted into the same grade in which he/she was studying in a regular school, or depending on his/her ability, an individual educational plan (IEP) will be created to meet special educational needs.
5. The approval of the admission committee, headed by the school's principal, must be obtained.

Mainstream schools for DHH students will include specialists in DHH as well as educators in other disciplines. As reported by the Ministry of Education in Saudi Arabia (2019) the admission committee will include:

1. The school principal in charge of the whole school, including both regular and special classes.
2. Specialists in DHH education (the local supervisor, the teacher of DHH students, and the speech and language teacher) representing the DHH unit.
3. Audiologist, the regular classroom teacher, the student advisor, and the psychologist.
4. Parent and the D or HH student.

The above section draws a distinction between different educational options for DHH students in the Saudi context. These provisions depend also on different factors to be chosen as educational preference. It provides also a basis for differences in aspects of resources and provision in each option.

2.6.6 Specialist Teachers in DHH Education

This study intends to involve specialists in DHH education as well as the DHH students themselves as participants involved and practising mainstreaming and education of DHH students. The aim is to explore their experiences in mainstream primary schools and their understanding and perceptions of inclusive education. The specialists participating in this research will consist of local supervisors, DHH class teachers and speech and language teachers who have specialised in DHH education. The following subsections will describe these specialists and their functions in the DHH mainstream school.

2.6.6.1 Local Supervisor in DHH Mainstream Schools

A local supervisor is defined by DoOSE (2016; 9) as *“a teacher who has a distinct experience, performance, education, information, practice and background in most strategies serving educational process”* (Ministry of Education of Saudi Arabia, 2019).

Al-Romih (2005) explains, the role of the local supervisor in Saudi Arabia is as a teacher selected from among the other teachers due to his/her experience, who is commissioned to conduct educational supervision of his/her colleagues, and with a low teaching load due to the dual role of both teaching and supervision. To be more explicit, the local supervisor is *“named by locals owing to his/her continued presence between his/her colleagues in a school”* (Al-Romih, 2005; 22). Furthermore, the local supervisor is the teacher commissioned to head up a specialised unit, with a low teaching load, and to practise supervision after having met the necessary requirements and passed a personal interview with the Local Educational Authority (LEA). Therefore, the local supervisor’s responsibility involves the development, provision, constant assessment and supervision of his/her teachers with the aim of upgrading their level of teaching (Ministry of Education of Saudi Arabia, 2019).

There are some functions for local supervisors of the DHH inclusive schools (Ministry of Education of Saudi Arabia, 2019), such as:

1. Participation in identifying the professional training needs of teachers in DHH education.
2. Participation in planning the development of the professional performance of the teachers of DHH education and supervising it.
3. Professional supervision of learning, the education process, motivating activities, distributing courses to the teachers, learning means, laboratories and educational technology in different learning environments including DHH education.
4. Preparing teachers professionally and enabling them to move from the traditional learning environment into the activated learning environment.
5. Naming teachers who deserve financial and moral awards.

6. Developing and implementing plans to help new teachers.
7. Conducting research with teachers to improve DHH education.
8. Developing solutions for barriers facing teachers of DHH students.

(Ministry of Education of Saudi Arabia, 2019)

In this study, I define the local supervisors procedurally as teachers specialised in DHH education, who professionally supervise the DHH special unit belonging to the Saudi Ministry of Education in mainstream boys' primary schools in the Local Educational Authority in Riyadh.

2.6.6.2 Teacher of DHH Students, Specialised in DHH Education

The first time a teacher of DHH students was trained and qualified in Saudi Arabia was in 1985 when the Department of Special Education was established in King Saud University (KSU) in Riyadh. When studying in this department, it takes four years to obtain a bachelor's degree in Special Education–Hearing Impairment. Therefore, the first batch graduated in 1989 (Department of Special Education, 2018). Before that, in 1968, the Saudi authority had cooperated with UNESCO to qualify 40 male and female teachers to teach its DHH students (Al-Muscat, 1984). Recently, there has been an increasing number of graduate teachers who specialise and work in DHH education.

A DHH teacher needs to be qualified with a bachelor's degree in DHH education, or have another bachelor's degree in an education major with a diploma in DHH education of least one year before they will be allocated to a DHH institute or to a mainstreaming programme (Ministry of Education of Saudi Arabia, 2019).

Furthermore, the teacher of DHH students is required to perform diverse functions (Ministry of Education of Saudi Arabia, 2019), they should:

1. Decide on the nature of the educational services needed inside the classroom by diagnosing the DHH students' needs.
2. Recommend the intervention requirements needed to help the DHH students.
3. Plan and apply both short- and long-term aims via the IEP.
4. Constantly evaluate the progress of DHH students' learning.
5. Activate and share in DHH training courses, conferences, and research.
6. Create an environment for interactive learning.

(Ministry of Education of Saudi Arabia, 2019)

The teacher of DHH students is responsible for the further development of their professional role, for being aware of the value of short- and long-term aims related to the curriculum and skills, and for making constant use of assessment to ensure the effectiveness of the students' Individual Educational Plans (IEP). They are rewarded by an additional salary bonus of 30% (Alshahrani, 2014). As this study intends to recruit teachers of DHH students, the procedural definition is a teacher who specialises in DHH education and works in a DHH mainstream boy's primary school belonging to the Saudi Ministry of Education in the Local Educational Authority of Riyadh.

2.6.6.3 Communication Disorder Teacher

The communication disorder teacher in DHH mainstream schools in Saudi Arabia is the person who is responsible for the diagnosis of communication disorders among DHH students in the school, and who does therapeutic work and produces training plans (Ministry of Education of Saudi Arabia, 2019). The functions of this teacher are identified by the Ministry of Education in Saudi Arabia (2019) as follows:

1. Diagnosing and determining the nature of the needs.

2. Referral of DHH students in cases where medical intervention is required.
3. Developing and implementing IEPs for DHH students.
4. Constant evaluation of the progress of DHH students' learning.
5. Contacting the families of DHH students and inviting them to share in developing the IEP.
6. Cooperation with the teachers of DHH students to follow up with students inside the classroom.
7. Working to realise the complete benefits of hearing aids.
8. Participation in research, courses, training, and conferences in communication disorders.

(Ministry of Education of Saudi Arabia, 2019)

It must be pointed out that there is a difference between a Communication Disorder Specialist (CDS) and a Communication Disorder Teacher (CDT). Although they have overlapping functions, the CDS has graduated from medical science; whereas the CDT has specialised in Special Education and in DHH education and has graduated from human science. Moreover, it is extremely rare for a CDS to work in the Saudi Education Ministry; they generally prefer to work in hospitals or medical clinics rather than in schools. This could be due to greater financial and moral incentives. Therefore, the departments of special education in Saudi Universities train special education teachers in communication disorders during three units, all of which will be required before they can graduate and be allocated to DHH students in schools (Department of Special Education, 2019). The qualifications for the communication disorder group of teachers are illustrated in Article 13 of DoOSE (2016: 87) and Ministry of Education in Saudi Arabia (2019) as follows:

1. A special education teacher will have a bachelor's degree in special education or be a teacher who has a bachelor's degree followed by a diploma of special education of at least one year.
2. An assistant teacher will have a diploma in DHH education.
3. Support services will be specialists in DHH students' education.

Therefore, for the purposes of this thesis, I define the communication disorder teacher as a teacher who has specialised in DHH education and is working with communication disorders in DHH mainstream boy's primary schools belonging to the Saudi Ministry of Education in the Local Educational Authority in Riyadh.

The above section helps distinguish the natures of the participants involving in the current study. It describes also the background to DHH education in Saudi Arabia to define features of the community practising education of DHH students in this context. This includes the classifications and role of each involved individual in this community whether as a student or educator.

2.7 Chapter Summary

The history of Saudi context indicates the efforts of disabled individuals in establishing special education (see section 2.1). Saudi Arabia had experiences of alignment with foreign concepts such as 'segregation' and 'integration' even though segregation is, arguably, contradicted by Islamic values. It could be argued that the principles of inclusive education for DHH/SEN students are not contradicted by Islamic values. A point of view has been advanced that inclusion existed in Saudi Arabia before the alignment with segregation in the 1950s. However, at that time, the concept of inclusion might have been different from the current international concept of inclusion, because education in Saudi Arabia took place in mosques and places of worship

rather than schools. Saudi policies have several laws promoting the rights of disabled individuals, but educationally policies talk more about 'mainstreaming' with little clarification about how to put this out-dated concept into practice. In practice and in policy, there tends to be a discernible overlap between and interchangeable use of the concepts of integration and inclusion. Some practices of inclusion have appeared, but only for hearing students with minor speech and language disorders (not students with hearing impairment). As the principles of inclusion are unlikely to contradict Islamic values, this could help to improve educational provision for DHH students in the Islamic context, one of which is Saudi Arabia, aligning with international efforts.

Chapter Three: Deafness

3.1 Definition of Deafness

There are several definitions of deafness. The American National Centre for Law and Deafness (ANCLD) defines Deafness as

“a severe hearing loss that limits the child’s ability to process linguistic information through hearing, with or without amplification, and that adversely affects educational performance” (ANCLD, 1996, cited in Alzahrani, 2005: 7).

This definition mentions the barrier caused by the hearing loss and the influence this has on the acquisition of a spoken language by a Deaf person and therefore on educational skills in school. However, different degrees of hearing loss are described by Moores (2001) who defines Deafness as the loss of 70 dB or more of hearing, meaning that the individual is prevented from understanding conversation whether with or without hearing aids. Moores describes the impact of hearing loss by including the social skills of communication rather than its effect on the educational setting only. Some experts define Deafness in terms of communication and cultural interpretation. For example, Skelton and Valentine (2003) suggest that Deaf people are a minority who use sign language as their first form of communication. The wider community must therefore accept the Deaf as an independent cultural community with its own particular language. This definition makes identity and group belonging as a Deaf person more significant than any other characteristics. Although there are differences between the categories of hearing loss, another way of viewing Deafness would be as described by Senghas and Monaghan (2002: 72): they state

“we use deaf and hearing to denote specifically audio- logical traits, Deaf and Hearing to denote (or emphasize) identity or sociocultural issues, and d/Deaf and h/Hearing to denote and highlight the often inherently mixed nature of the audiological and sociocultural conditions”.

This was supported later by Watson, Powers, and Gregory (2013) who suggested that any degree of hearing loss should be included under the term Deaf because the ability

to hear naturally has been lost. However, the above definitions all tend to understand Deafness through the medical perspective as they mention individual diagnosis, weaknesses and abilities, and categorisation depends on the degree of hearing loss.

In the UK, for example, the term D/deaf has two meanings. The National Deaf Children's Society (NDCS) (2019) and Batterbury, Ladd and Gulliver (2007) distinguish between the meaning of Deaf with a capital D (Deaf) and deaf with a small d (deaf). 'The deaf' refers to those who experience partial or complete hearing loss at any stage of their lives; they are audiological deaf and this includes both deaf and hard of hearing children who do not use sign language.

"In the Western world, the use of a capital D in the word "Deaf" refers to culturally Deaf individuals who share Deaf culture, sign language, and participate in the Deaf community. In contrast, the small d refers to the audiological condition of being deaf with limited or no contact with other deaf individuals" (Holcomb, 2013; Moores, 2001, cited in Alofi, Clark and Marchut, 2019: 1506).

Deaf is here used to identify those who belong to the Deaf cultural community and use sign language. The Deaf community has admitted this individual as a member. However, the British Association of Teachers of the Deaf (BATOD) (2018) include all hearing loss categories in their definition of Deaf, including both the Deaf and the Hard of Hearing (DHH). To BATOD, the term(s) Deaf/deaf refer to individuals who have a hearing impairment, whether partial or total, affecting both their hearing and speech due to the impact of hearing loss, and regardless of whether or not they use sign language (BATOD, 2018).

It could be concluded that the definition of NDCS (2019) and Batterbury, Ladd and Gulliver (2007) mentioned the special needs of DHH students not as a weakness, but in terms of the special services required in places of education.

As the Arabic language does not differentiate by using upper and lower case 'd', this distinction is not noted in the Saudi deaf community (Alofi, Clark and Marchut, 2019). Thus, in this thesis, I will use DHH as it is used in Saudi Arabia, where this study will take place. 'D' stands for deaf with severe and profound hearing loss, whether they use spoken or sign languages, and 'HH' for Hard of Hearing students with mild and moderate hearing loss who communicate by spoken languages. DHH therefore combines audiological and sociocultural distinctions, as identified by Senghas and Monaghan (2002: 72).

3.2 Classification of Hearing Impairment

Hearing loss is classified internationally according to three standards (Al-Turki, 2005), they are:

1. Classification according to the age when hearing loss commenced, or when the Deafness began. Was it before or after the mastering of language? Educational experts who are interested in the relationship between hearing loss and language performance consider this classification very carefully. When the hearing loss was early, the difficulty in learning a spoken language will be far greater.
2. Classification according to the site of the damage: First, the hearing loss is conductive if the site of the damage is in the external or middle ear. Second, it is Sensor-neural hearing loss when the damage is in the inner ear or the auditory nerve. Third, a mixed hearing loss occurs where both sites are damaged, whether in one ear or both.
3. Classification according to the degree of hearing loss can be measured by Decibels (dB) and is as follows:
 - Quite mild hearing loss: between 25–40 dB.

- Mild hearing loss: between 41–55 dB.
- Moderate hearing loss: between 56–70 dB.
- Severe hearing loss: between 71–90 dB.
- Profound hearing loss is 91 dB and above.

The classification by the degree of hearing loss is an indicator that identifies the needs and the appropriate place for education. In different educational systems, this indicates whether a special or mainstream school will be appropriate. Moores (2001) gives a useful example of this: First, an individual with a hearing loss of between 35–54 dB can be helped with hearing aids and speech training and can be located in the regular classroom. Second, those with a hearing loss of between 55–69 dB need hearing aids and speech and language therapy and may be placed in a special classroom. Third, an individual with a hearing loss of between 70–89 dB, needs a hearing specialist, a speech and language therapist, and could be placed in a special classroom or in a school with a special academic curriculum. Finally, an individual with a hearing loss of 90 dB or more, will need a hearing specialist, a speech and language therapist and to be in a special classroom or in a special school with educational support (Moores, 2001).

The history of DHH individuals indicates considerable interference by hearing individuals in defining their impairment, style of education, and mode of communication. This has led later also to what called a categorisation in the names and internal abilities which led also to interference in the provision provided to them and segregation somewhat. The acronym DHH (Deaf and Hard of Hearing) as it is used in Saudi Arabia matches the terms Deaf/deaf as used in the UK where D stands for Deaf with severe and profound hearing loss whether they use spoken or sign languages and little d stands for Hard of Hearing (HH) students with mild and moderate

hearing loss. It could be argued rethinking regarding the definitions and classification of DHH students based on socio-cultural view could give useful meanings, particularly when considering the perceptions of DHH individuals' themselves and inclusion.

3.3 Deaf Culture

Deaf culture includes all the particular matters of the Deaf world. These matters can involve famous people including experts, writers, artists, athletes, all of whom have been leaders in the Deaf world. It also includes several practical matters such as universities/colleges for the Deaf, tools and devices to aid the communication of the Deaf, news about Deafness and research and any other factors affecting the world of the Deaf, even Deaf dancing. Sign language is regarded with much pride in Deaf culture. Gallaudet University (GU) was established in 1864 in the United States as the first University in the world for the DHH. Deaf people consider this university as a symbol of pride where they can achieve higher education. It is inevitable that GU vigorously defends Deaf rights and supports their voice in decisions (Marschark *et al.*, 2011). This was exemplified in 1880, when GU rejected the recommendation of the Milan Conference to impose oral communication as the first form of Deaf communication. It called for the recognition of sign language as a real language (Stokoe, 2001). Furthermore, in 1988, Deaf students put up considerable opposition in front of the Whitehouse in Washington because a hearing president had been assigned to Gallaudet University. They brought the traffic to a standstill because they wanted a Deaf president to represent them in Gallaudet University (Marschark *et al.*, 2011).

The term culture has been defined as

“the possession of a shared history, a unique language (or perhaps dialect), a distinctive art, music, literature or cuisine, are all important in establishing whether or not a group constitutes a culture” (Sparrow, 2005: 140).

However, some experts and researchers have refused to say that the Deaf have a common culture: they tend to label the Deaf as aggregation, a group, a category, or at least a subculture or ethnic culture because they share their history, experiences and institutions with the hearing community. The Deaf community has an independent language, containing a particular grammar and non-audio vocabulary or signs, and they have special places for their activities, such as clubs, schools, and sports fields, and they have their own peculiarities (Sparrow, 2005). An implication of this is the pressure from using a different language from the wider community, affecting communication and interaction, which is essential for the success of inclusive education for Deaf students. This aspect will be explored more in the following subsection.

This project aims to ask DHH students and specialists about the essential elements of the Deaf culture as it relates to inclusive education. The concept of inclusion is new in Saudi Arabia and interviewing involved participants in mainstream schools can play a vital role in moving towards inclusive education in Saudi Arabia. One possible implication of this is that there may be pressure from Deaf Culture on the success of inclusive education for DHH students as they may like to be independent; this could be a reaction to longstanding pressure from the medicalisation (the medical view or model, explained in sections 4.2.1 & 5.5.1) in thinking, which refers to a segregation, and society’s attitude toward them. Nevertheless, familiarity with two cultures or more could promote the capacity of DHH individuals to success in inclusive settings.

3.4 Sign Language and Bilingual-Bicultural Philosophy (BBP)

Sign language is defined by Poe (2006) as a means of communication by which the Deaf use their hands to interact with others without the use of a spoken language. Furthermore, it is the most accessible and natural language, and it is one that the Deaf are proud to use. For the Deaf, it is a visual way to communicate; it is therefore frequently used by the Deaf community as the first element of their culture (Poe, 2006). However, British Sign Language, American Sign Language, and Australian Sign Language are independent languages with separate rules and grammars, and the signs do not represent the English language nor have the same forms of speech (Gravel & O’Gara, 2003). In contrast, Arabic countries have a uniform Arabic Sign language created by The Arab Federation of the Deaf (AFD) which works as an organisation to promote the understanding of Arabic Sign Language. In 2001, they approved the Unified Sign Language Dictionary in order that Arabic Sign Language could be used by the Arabic Deaf everywhere (Alamri, 2017).

The Office for National Statistics in the UK (2011), for example, indicates that British Sign Language (BSL) is the first language of the British Deaf community, which consists of between 15,000–20,000 Deaf people in the UK (Statistics, 2011). Australia and New Zealand’s sign languages are closely related to BSL (Johnston, 2003); therefore, they can be considered one language. The majority of the Deaf are born into hearing families. The statistics in the UK indicate that roughly 10.6% of Deaf children have a family history of Deafness (Stamp *et al.*, 2014), which means that approximately 92% are born into hearing families. Stamp *et al.* (2014) point out that hearing parents may not have the time or ability to learn sign language as well as the Deaf, who use sign language constantly. There are few opportunities to use sign

language in the hearing community, and this may encourage the Deaf to become segregated (Stamp *et al.*, 2014).

The Bilingual-Bicultural Philosophy (BBP) is based on the concept that sign language is the first language, or the mother language, of the Deaf (Al-Rayes, 2007). Through sign language, Deaf children can go on to master their national community language as a second language, and the Deaf need to be familiar with both the Deaf culture and their domestic culture. Thus, sign language can enable the Deaf to learn another language and knowing two cultures is essential if the bilingual-bicultural philosophy is to be embraced.

BBP emerged as a concept in 1981 when the Swedish Parliament approved a resolution that sign language is the first language for the Deaf, but that they are required to be bilingual, according to the requirements of the Swedish community, their families and schools (Al-Rayes, 2007). The Bilingual-Bicultural individual is defined as

“a person who is bicultural can move freely within and between two different cultures. Biculturalism implies an understanding of the mores, customs, practices, and expectations of members of a cultural group and the ability to adapt to their expectations” (Finnegan, 1992: 1).

It is evident that there are various benefits of educating Deaf children within the BBP. Mastering two languages and two cultures can promote cognitive development and academic achievement early in the life of the Deaf (Baker & Baker, 1997). These authors add that Deaf students who are educated according to the BBP are shown to be high in self-esteem and confidence and ultimately become successful Deaf persons rather than a simulation of a hearing person. However, there may be obstacles that restrict the application of the BBP. One of these, as Baker and Baker (1997) indicated, is that Deaf individuals may face difficulties because sign language is the representative language of the Deaf culture. Further, there is the challenge of

preparing programs for Deaf education in universities that have not adopted the BBP in teaching their Deaf students, but instead insist on a total communication philosophy. Lastly, there is a lack of training for teachers and parents, and a low level of sign language in schools for Deaf students (Baker & Baker, 1997). However, the Baker and Baker study (1997) was conducted over 20 years ago, and these obstacles could have been improved or updated.

One possible implication of this is that Deaf students who learn the national language through sign language may help the move towards inclusion. Furthermore, the knowledge of Deaf people of the domestic culture increases their likelihood of being included in the big community, and perhaps also contributes towards successful Deaf inclusion. So far, very little attention has been paid to the role of BBP in inclusive education for DHH students.

3.5 Auditory-Oral Approach (AOA)

The AOA is based on the argument that mastering the spoken language is the actual purpose of educating DHH children, and it is the best way to develop their ability to communicate with the greater community, including both home and school (Stone, 1997). This approach is influenced by traditional ways of developing oral communicational skills which depend on residual hearing and reading aloud (Zapien, 1998; Alzahrani, 2005). Therefore, AOA aims to develop oral communication skills, and schools that use the auditory-oral approach do not teach sign language to DHH children (Zapien, 1998).

AOA's programmes/schools focus on developing hearing skills and applying appropriate hearing aids. The cochlear implant plays a considerable role in maximising the benefits of these aids (Cramton, 2008). Therefore, these schools, on principle,

promote the ability of the child to speak. The DHH children benefit from developing their skills in understanding and speaking the spoken language and this leads on to their developing social skills, knowledge and academic skills in regular schools (Schwartz, 1996).

Where the AOA approach is followed, the principle confirms that the vast majority of DHH children have an ability to listen and to speak via early interventions and constant training that develops their hearing ability. The aim is to help DHH children to become integrated and independent citizens in the community (Alzahrani, 2005). However, early detection and interventions for hearing loss and constant use of hearing aids are all essential for successful AOA. DHH children can develop a spoken language through AOA by using the residual hearing and reading facial signs and other gestures naturally. They make constant use of hearing aids, FM systems, hearing training, speech therapy, and lip-reading, all of which contribute to the advantages of AOA (Gravel & O’Gara, 2003). This approach supports the families and DHH children in cases where Cochlear implants are an option.

From a review of the literature, the necessary elements for successful AOA are:

1. Early detection of hearing loss: hearing tests can be applied in hospitals on the first day of a child’s life and certainly before leaving the hospital, and this hearing loss detection is the first step (Schwartz, 1996).
2. Early AOA intervention: this step is essential once hearing loss is detected. It means that hearing aids should be applied immediately, and the goal is to enable the child to receive sounds as soon as possible because the first five years are a critical period for language acquisition (Cramton, 2008).

3. Making use of advanced technology through appropriate hearing aids: hearing specialists can decide on a suitable hearing aid for each level of deafness, and they can determine whether the child needs a cochlear implant (Gravel & O’Gara, 2003; Cramton, 2008).
4. Advanced education is based on the above three factors: the vast majority of DHH come from hearing families who want their child to learn a spoken language with the aim of their being integrated into the wider community, so these parents often choose Auditory-Oral schools for their deaf children (Schwartz, 1996; Cramton, 2008).
5. Participation of parents: parents must have both sound and language owing to their essential roles in terms of Auditory-Oral training during the early stages for the DHH child (Stone, 1997; Gravel & O’Gara, 2003).
6. Constant quality of speech and language therapy: continual training secures the results in term of speech and language therapy, and follow-up is vital in relation to the DHH child’s age and developmental achievements (Stone, 1997).
7. Appropriate linguistic instruction: experts are needed to guide the DHH child to obtain the full linguistic benefits from their natural community so that they can ultimately be integrated into regular schools (Stone, 1997).
8. Appropriate place for education: AOA prefers to place children in regular schools providing speech and language therapy services through individual coaching (Stone, 1997; Cramton, 2008).

It becomes evident that this approach may be suitable for use with DHH students in an inclusive setting where it emphasises a national spoken language that is used by regular educators in regular classrooms and schools. It aims to reduce the communication barriers facing successful inclusion for DHH students as regular

educators have little ability in using sign language. Mastering the spoken language could be a considerable helpmate to develop their communication and inclusion within the greater community, including both home and school.

3.6 Auditory-Verbal Approach (AVA)

The AVA began after the Second World War when transistor radios were developed, which in turn helped the development of hearing aids (Caleffe-Schenck & CED, 2005). In 1950, Doyen Baleck pioneered the AVA and this approach then spread widely to be used by Deafness, hearing and speech-language specialists. However, AVA became increasingly used when the first cochlear implant surgery was successful in 1990. At that point, AVA became the necessary means of helping DHH children with an implanted electronic cochlear to hear sounds (Caleffe-Schenck & CED, 2005).

Educating DHH children through AVA depends on both speech and hearing skills, and these are supported by the ongoing development of hearing aids and cochlear implants. There are, however, differences between AVA and AOA. AVA confirms the necessity of training the hearing and listening skills, it aims not to depend on lip-reading (Alzahrani, 2005). Therefore, AVA encourages the DHH child to avoid looking at the lips or facing the speaker (as happens with AOA), so the child depends on its listening and hearing of sounds. These are the necessary conditions for successful AVA (Alanazi, 2010).

AVA is a philosophy that prioritises all categories of Deafness to be educated through listening and hearing and by communicating through spoken language. AVA depends on a combination of principles and applications that confirm the importance of early detection of hearing loss, the early use of hearing aids and cochlear implants, the

participation of families in the early stages of a DHH child's life in developing the skills of hearing and speaking (Alzahrani, 2005).

Notably, the aim of AVA is to develop a spoken language that is mastered exclusively through using residual hearing, which is strengthened through hearing aids. Integrating the DHH child entirely into the hearing community could be considered its long-term aim (Goldberg, 1997). The constant use of hearing aids and cochlear implants are considered necessary to achieve this aim. It could be argued that the majority of DHH children have residual hearing, and that this can enable them, using suitable hearing aids, to learn how to listen and how to speak in a natural voice. If a new-born cannot listen or hear, their families are advised to implant an electronic cochlear device as soon as possible during the child's very early stages, Advanced detection, early intervention, the use of technologies and families' training are all important (Cramton, 2008). Hence, there could be huge benefits from using AVA to communicate by using a spoken language as this will successfully support the child's inclusion.

Goldberg (1997) identified ten basic principles that are required for the successful implementation of AVA. These are:

1. Early diagnosis of hearing loss and immediate auditory-verbal therapy.
2. Providing advice regarding direct assessment and using appropriate hearing techniques for obtaining the most significant benefits from hearing.
3. Parents need training and constant instruction to help their DHH child to use his/her residual hearing as a primary sense to pick up the spoken language without focusing on sign language or lip-reading.

4. Parents need training and constant instruction to offer useful assistance to their DHH child in learning to listen and speak by constant and activate participation in their individual auditory-verbal therapy.
5. Parents need training and constant instruction to find a natural environment for the child to listen to the spoken language throughout its daily activities.
6. Parents need training and constant instruction to help the DHH child to integrate its listening with spoken language in all aspects of its life.
7. Parents need training and constant instruction to use entirely natural learning models for listening, speaking, language, and communication.
8. Parents need training and constant instruction to help the DHH child to self-monitor when he/she is speaking or listening.
9. Continuous assessments need to be conducted to monitor the process and the effectiveness of the family's and child's plans.
10. Education in inclusive schools is needed where the child is with hearing peers and appropriate services are given, even in the initial stages of education.

The benefits and advantages of adopting AVA as an approach to teach DHH children were stated by Gravel and O'Gara (2003) as follows: First, AVA is underpinned by early detection, early intervention, constant using of hearing aids, and individual therapy. Second, parents must be helped to learn the skills that will help the DHH child to listen and speak, and they must understand the impact of Deafness on their child. Third, AVA encourages DHH children to increase their ability to listen and speak. Finally, AVA endorses the idea of including DHH students in mainstream schools with less dependence on special education services. Arguably, the greatest advantage is that the majority of DHH children have parents who hear. Thus, the parents do not need to learn sign language or lip-reading but are encouraged to do what they would

naturally do. They will be part of all that their DHH child does in the school and at home (Goldberg, 1997).

The evidence from this suggests that there could be huge benefits from using AVA to communicate by using a spoken language, as this will successfully stand as a support for the inclusion of the DHH children. Adopting AVA with DHH students at an early age may increase the likelihood that their inclusion will be successful, and this can help this study to generate more themes to be discussed in terms of the required support for successful inclusive education for DHH children in Saudi Arabia. However, there is a need to investigate whether this approach is available for DHH children in Saudi Arabia or not. Therefore, this study investigates the current experiences of DHH students in mainstream schools, including whether this approach exists, as the absence of AVA might stand as one of the challenges for inclusion of DHH students in the Saudi context.

3.7 Total Communication Philosophy (TCP)

TCP emerged in 1967 when Roy Holcomb framed total communication as a philosophy and not as a method, so TCP may include one communication approach or different approaches (whether with the hands, oral, hearing, reading, or by writing) depending on the individual DHH student's needs (Hawkins & Brawner, 1997). These authors added that teachers of DHH students might use TCP as the most appropriate method of communication with a particular student, at a specific stage. The expectation is that there are some who need communication through touch or speaking, while others may need communication through sign language, writing or by hearing.

TCP means that the DHH students are using all the communication means used in schools to help them master a language, knowledge and skills (Schwartz 1996). It could be based on the idea that incoming hearing and visual information contributes to the DHH students' capacity in terms of the visual, hearing and oral elements of a language.

However, TCP can be critiqued, and some educators may use different communication methods at the same time, such as the use of sign language and speaking at the same time. If this happens, the Deaf student may be confused as to whether to follow the hand signs or do lip reading. The arrangement of words in sentences in sign language is different from their arrangement in the spoken language. Schwartz (1996) demonstrates that TCP calls one to use each way separately, such as speaking only at first, and only after finishing speaking moving on to using sign language or another form of communication. A combination in using communication methods at the same time does not represent the TCP and often unfavourable.

The essential benefits of TCP lie in its ability to provide all methods of communication, thereby allowing the DHH students to choose the most effective and beneficial method for themselves, both in the classroom and at home. This means the type of communication may depend on the nature of the relationship between the child and their parents (Gravel & O'Gara, 2003). Research has frequently proven the beneficial impact of TCP on all aspects of the DHH child's life, whether linguistic, academic, social or psychological (Hawkins & Brawner, 1997).

The majority of Arabic education ministries, and Saudi Arabia is among them, recommend the use of TCP with all degrees of Deafness in their programmes/schools owing to the advantages mentioned by Hanfy (2004):

1. TCP exploits the residual hearing by using hearing aids.
2. It does not eliminate the role of lip reading.
3. It gives the deaf a chance to master and use sign language to express their needs, desires and sentiments.
4. It gives the parents a chance to communicate with their DHH child and then to spend more time with their family.
5. It gives schools a chance to include DHH students within their local environment.

However, Hawkins and Brawner (1997) indicate some obstacles that may limit the ideal implementation of TCP in DHH schools/programmes: First, it mixes the communication options. Second, a specific communication method may be chosen that does not fit with the ability or readiness of the DHH child. Third, there is a lack of experience in the communication methods among DHH teachers.

Thus, it could be argued that bearing in mind that Arab countries are familiar with the use of TCP, considering this philosophy in an inclusive setting could help this study to investigate the experience of DHH students in mainstream schools. Furthermore, this might play a role as one of the dimensions (support/barriers) in the success of inclusive education for DHH students in Saudi Arabia.

The evidence from this suggests that communication style can play an essential role in inclusion, making the context of inclusion of DHH individuals unique. Moreover, the DHH students have proved their communicational skills in different styles or philosophies, whether or not they receive early intervention. Moreover, it is almost certain, early intervention is a considerable factor in the success of these philosophies with DHH individuals. The early use or exploitation of one of these strategies with the

DHH at an early age usually leads to their success in social interaction and inclusive education regardless of the type of communicational strategy used. Our attention should be redirected therefore towards external factors rather than their internal capacities.

3.8 Factors Influencing the Choosing of the Communication Philosophy and Educational Placement for DHH Students

Parents often face difficulties in selecting the most appropriate method for their DHH child and in determining the best type of educational environment for them, whether a special or mainstream school. The availability of the different approaches and educational organisations will all have to be considered before making these decisions. These factors should be determined at an early age for the DHH child by a multidisciplinary team that includes the parent and the DHH child if the best decisions are to be made. The multidisciplinary team will include a hearing specialist, a speech and language therapist, a psychologist, a teacher of DHH students and other specialists as needed (Geers & Moog, 1992; Alzahrani, 2005).

The multidisciplinary team might consider five standards when choosing the best method of communication and the best place for the child's education. These include the amount of residual hearing, linguistic efficiency, mental capacity, family support, and the attitude of the DHH child towards the various methods and the extent of their receptivity (Alzahrani, 2005). As a result, the team may arrive at one of the following decisions: to focus entirely on speaking, to focus on speaking with the provision of assistant services, or to focus on sign language and total communication.

This subject has been discussed extensively in the literature by Gravel and O'Gara (2003). They indicated that different factors affect the choice of the most appropriate

communication method and the best educational environment for a child. They describe these factors in some detail.

3.8.1 The Age of Detection and Intervention

The linguistic age of children who receive early intervention is close to that of their hearing peers; however, the vocabulary achievement of DHH children whose intervention only starts after the age of two years is much lower than the achievement of their hearing peers (Moeller, 2000).

3.8.2 Parents' Participation

Some studies have emphasised the role of family participation in the early intervention process. Most families prefer the verbal or oral approach that maintains the natural language of the family and engages the DHH child within their natural spoken community. Additionally, the majority of Deaf children are born to hearing parents, and these parents may not have the time, the diligence, or willingness to learn another language, sign language, to communicate with just one of their children (Gravel & O'Gara, 2003).

3.8.3 Using Hearing Aids and Cochlear Implants

Most of the communication methods depend on the ability of the DHH students to hear, with the one exception of the sign language method. Hearing can facilitate the development of a spoken language and brings the added benefit of being able to listen to the wider community. However, these options must be initiated at an early age with the DHH child, and on no account must the first five years be lost as these are the critical period for learning the language. Evidence indicates that a cochlear implant in a child aged two or three gives superior results in terms of vocabulary achievement

relative to a cochlear implant in a child aged four to five years old (Dettman *et al.*, 2007).

3.8.4 Speech Intelligibility

The pronunciation of children with mild hearing loss is generally clearer than the pronunciation of children who have greater hearing loss. At the other end of the spectrum, children with severe and profound hearing loss face great difficulty in developing clear pronunciation, despite the use of hearing aids. There is evidence that the speech of children who are trained through the verbal and oral approaches is clearer and their pronunciation is better than that of children educated through sign language (Clark, 2006).

3.8.5 Having other Disabilities

Some families have children with multiple disabilities. If one of these is Deafness, they face even more challenges regarding the choice of the best method of communication and the best educational place for their child. This is particularly so in the early stages, when the child's natural abilities are still emerging (Moeller, 2000).

It could be understood that the above five factors have often influenced the process of choosing the communication strategy and then the educational option for DHH students. As explained before, early intervention has often influenced positively the sharpness of the negative effect of these five factors and likely made all the educational options available for DHH students. The thinking about provision for DHH students should consider all factors, aspects, and aims to eliminate obstacles in society that may limit the inclusion of DHH students. The experiences of DHH students with difficulties or impairments are a necessary contribution to inclusion as a diversity of experiences. This involves a complex interaction between the child's needs and

strengths, and aspects of the social and physical environment that include the educational services provided and result in an understanding of the level of needs and of the support required. Ultimately, these experiences can also provide benefits in enhancing diversity in inclusive settings.

3.9 Characteristics of DHH Students

The behaviour of DHH students may be affected by their hearing loss, although the hearing loss may not affect those characteristics that are more dependent on their visual ability (Andrews, Shaw, & Lomas, 2011). It is, therefore, a considerable challenge to understand the characteristics of the individual DHH student and to know the best educational place for them and what services they will need (Shaver *et al.*, 2013). Marschark *et al.*, (2011) point out that hearing loss affects several aspects of the DHH individual's life: the first is the linguistic aspect, which affects the DHH person socially, emotionally, cognitively, and academically. These authors say that these characteristics will depend on several factors, including the health history of the family, the individual's communication skills, and the time when deafness commenced. The characteristics of DHH are discussed in the next sections.

3.9.1 Linguistic Characteristics

The linguistic characteristics of DHH students are those most affected by hearing loss, and the effects on the spoken and received language are mostly negative, regardless of whether they are D or HH (Andrews, Shaw, & Lomas, 2011). Although the majority of DHH children have hearing fathers and mothers, their linguistic learning is still problematic (Doherty, 2012a). Although the majority of Deaf people face difficulties when attempting to use a spoken language as their primary means of communication with others, they may achieve natural linguistic growth through sign language, which

can provide them with the same qualities that hearing individuals develop through their spoken language (Andrews, Shaw, & Lomas, 2011).

Shaver *et al.* (2013) conducted research to compare the linguistic skills of secondary school Deaf students with severe and profound hearing loss who were in special schools and used sign language, and those of their peers who were hard of hearing, had mild to moderate hearing loss, and who attended mainstream classrooms where spoken language was used. Shaver *et al.* found that the students who attended mainstream schools had more linguistic skills in terms of using the spoken language and were less likely to use sign language than the Deaf students who attended special schools.

Whatever the language is, whether spoken or signed, it plays a critical social role in the DHH individual's life (Magnuson, 2000). Students with mild to moderate hearing loss are more likely to use spoken language and attend mainstream classrooms with less need for services than those with severe and profound hearing loss, who prefer to use sign language and attend special schools (Shaver *et al.*, 2013). Another aspect to consider is that there are far more students who are hard of hearing than those with severe and profound hearing loss. The hard of hearing students tend to be late in developing their speaking skills due to their hearing loss, while the Deaf students, with greater hearing loss, are even later in developing their speaking skills (Vonen, Hyde, & Hoie, 2007).

Other literature investigating the linguistic skills of DHH students in educational settings reports the work of Sarant *et al.* (2008), who examined the spoken linguistic skills of 57 Deaf students in terms of the degree of hearing loss, cognitive abilities, age at the start of intervention, and parents' participation. They found that the linguistic

skills of Deaf students were influenced by their parents' participation, their degree of hearing loss, and by their cognitive ability. The researchers highlighted the importance of the family's role in enrolling their Deaf child early in intervention programmes that can support their language ability.

Marschark *et al.*, (2011) showed that language learning ability could be boosted through early detection and intervention. Recent cases reported by Meinzen-Derr, Wiley and Choo (2011) support the hypothesis that linguistic skills are not affected by the degree of hearing loss if there is an effective linguistic intervention by six months of age for DHH infants. These authors stressed the critical role of early linguistic intervention for the DHH child before the age of six months, as it will be harder to acquire linguistic skills at a later age.

3.9.2 Academic Characteristics

Reading skills depend considerably on linguistic skills, which will depend on hearing ability/loss with DHH students who suffer from serious deficiencies in various academic areas. In relation to reading skills, it appears that DHH students may have less ability relative to their hearing peers at the same age and academic stage (Swanwick & Watson, 2005). The reading and maths skills of DHH students in high schools may be equal to those of the hearing students by the fourth level (Andrews, Shaw, & Lomas, 2011). However, the academic characteristic can be affected by even the lowest degree of hearing loss (Marschark *et al.*, 2011). Deaf students with Deaf parents show superior achievements in reading and linguistic skills in comparison to Deaf students with hearing parents. This is due to the positive effects of using of sign language early to help them in fluency with that language, which is then followed by the reading and writing skills (Andrews, Shaw, & Lomas, 2011).

DHH students need several services in places of education, and an understanding that the impact of Deafness on academic skills is complex (Marschark *et al.*, 2011). However, some things can be done in the home environment that may increase the academic achievement of DHH students. This is evident in cases where families participate and encourage the DHH child to be optimistic, and where they avoid being extra-protective of the DHH child, and also where family's members engage in the Deaf culture (Andrews *et al.*, 2011).

Nevertheless, there is still a need for research regarding the best educational practice for DHH students. Marschark *et al.* (2011) state that the research division of the Council for Exceptional Children (CEC) has failed to find a suitable method for investigating the best teaching method to use with DHH students, and there is a need for future research. The CEC recommends that researchers follow a qualitative design as that can provide extensive results regarding teaching practice with DHH students. This supports the idea of this thesis, which aims to use the case study approach to generate an understanding of the perceptions of DHH students and specialists regarding inclusive education.

There is also a lack of research comparing the academic achievement of DHH students in inclusive classrooms and in special schools. Various studies have proved the positive role played by the inclusion of DHH students, despite the greater ability of their hearing peers in overall academic attainment (Spencer & Marschark, 2010). The inferior academic achievement of DHH students in inclusive classrooms was attributed by Hick, Kershner and Farrell (2009) to resistance by the teachers to the concept of inclusive education and its aims, and their belief that the hearing students would be negatively affected by the presence of their DHH peers inside the regular classroom. In contrast, Powers (2011) attributes the success of 27 higher-performing Deaf

students in inclusive classrooms to two variables: the character traits of the Deaf students and their parents' level of commitment.

Another comparison of the academic achievements of Deaf students in educational environments was conducted by Richardson *et al.* (2010). Their study aimed to understand the differences in the academic achievement of Deaf students in regular schools and in special schools in the UK. Two Deaf sample groups were involved who were balanced in their general proficiencies, and all were motivated and encouraged to do their best. The Deaf students in the regular schools felt better regarding their acquisition of general proficiencies, having flexibility over assessments, and changes in the teaching methods. In addition, they enjoyed the fact that the school staff took an interest in them. In contrast, the Deaf students in the special schools felt better in terms of the burden of educational expectations, the educational feedback, and having freedom of educational choice.

In New Delhi, India, Satapathy (2008) studied DHH students to examine the correlation between academic execution and psychosocial factors such as, 'stress, self-esteem, social-emotional adoption' and demographic factors such as 'age, parents' education and occupation, number of siblings, family income, age of onset of disability, preschool training and type of schooling. Eighty DHH students between 13 and 21 years were taken as the sample group, comprising low and middle-class teenagers, both male and female, and 111 hearing peers were involved as a control group. The data were analysed in relation to failure in specific academic issues, educational method, and the functionality of the family. This study found that stress had a significant and adverse correlation with the academic execution of the hearing pupils. Although still positive, this correlation was far lower for the DHH students. While social-emotional adaptation underpinned the academic achievement of two of the Deaf participants,

there were no differences in self-esteem between the two cases. Socio-demographic factors, such as number of individuals in the family, socio-economic class, and age, all had a significant correlation with the academic performance of the DHH students.

3.9.3 Mental and Cognitive Characteristics

The mental and cognitive characteristics of DHH individuals have been a focus of controversy in relation to the learning of a spoken language. Intelligence tests therefore take into account the linguistic characteristics of Deaf individuals and depend on their performance in applying sign language rather than on verbal or speaking skills (Andrews *et al.*, 2011). Non-verbal performance tests within intelligence tests for the Deaf give substantial weight to intelligence. These tests show that there are no differences in intelligence between the Deaf and their hearing peers (Andrews *et al.*, 2011). However, when they use IQ tests that require verbal intelligence, DHH students often achieve lower levels of linguistic skills than their hearing peers (Remine *et al.*, 2007).

Arguably, mental and cognitive abilities can be influenced by hearing loss and linguistic weakness, affecting dealing with problems, administrative duties, and general awareness (Vonen, Hyde, & Hoie, 2007). Marschark and Hauser (2008) argue that linguistic skills and mental and cognitive abilities are connected and interrelated, particularly in the early stages of a child's life. This interrelated relationship was excluded by Remine *et al.* (2007), who suggest that verbal cognitive tests are not appropriate to use with DHH children. This point is also supported by Marschark, Lang, and Albertini (2001), who claim that there are no variations in cognitive skills between DHH students and their hearing peers, and that both groups fall into the same bell-shaped normal distribution of intelligence.

Educators of DHH students should take into account that different factors may affect the cognitive skills and learning abilities of DHH individuals, including their knowledge and knowledge planning, metacognition, memory, and executive tasks (Allothman, 2014). DHH students and hearing pupils may vary in these factors. Cognitive skills may not be linked directly to intelligence. For example, if the cognitive characteristics of DHH students were understood better in the educational environment, the DHH students would possibly achieve better levels of knowledge and better results (Spencer & Marschark, 2010). Individuals with hearing loss do not have defective intelligence, and the evidence proves that they are as good as their hearing peers in cognitive skills (Moore, 2001). It would appear Deaf students' cognitive functions are within the normal range of intelligence, and that they vary in intelligence in the same way as their hearing peers.

3.9.4 Social Characteristics

The social characteristics of the DHH person often depend on their communication, and this can pose difficulties in their being connected with the wider hearing community. However, this may not be a problem for Deaf people who belong to a Deaf culture where they find others with whom to communicate. In the hearing community, a lack of communicational skills may expose DHH individuals to becoming segregated. Inclusion or integration and the hearing status of the parents are all considered essential factors in relation to possible DHH segregation (Andrews *et al.*, 2011). These authors add that 90% of Deaf children from hearing parents are awkward due to their parents' lack of knowledge of sign language. This leads to a lack of social communication with their Deaf children. This may motivate them to build relationships with other Deaf people, owing to their need for social communication.

The segregation of DHH students into special schools has negative psychosocial effects on them, which possibly influence their social acceptance (Jarvis, 2003). This point was also argued by Powers (2011), who stressed the vital role of inclusive education in stopping all types of stigmatised views against DHH students and in providing social communication with the full possibility of achieving good social relationships and skills with their hearing peers in regular schools. A study by Hadjidakou (2002) in Cyprus, aimed to explore the social and emotional development of DHH children in mainstream schools. Their findings indicate that DHH students studying in regular classrooms have considerable feelings of social and emotional optimism and self-esteem. Another study, in Lebanon, showed that the families of hearing students supported the idea of including DHH and other disabled students with their children in the regular classrooms as this would underpin the teaching resources and provide more enhanced services inside the regular classroom for their own children (El-Zein, 2009).

However, DHH individuals vary and several factors can influence whether they are isolated or included socially. Schick (2008) argues that the identity and self-esteem of the DHH pupil can be positively or negatively affected by including them in inclusive schools or classrooms, and that they prefer to form their own particular culture and community and to be isolated from the bigger community. Angelides and Aravi (2006) explored the social and academic perspectives of 20 DHH students in Cyprus: some of these students had been educated in special schools and the others in mainstream schools. They found that the special schools provided more opportunities for the DHH students to develop social friendships with their peers and teachers, whereas these opportunities were less in the mainstream schools and the DHH students might be disconnected from these opportunities provided in the special schools. Thus, inclusive

education should not be seen as a procedure or a process; it should be grasped as an ultimate aim where all DHH students are welcomed into regular schools (Reeves & Kokoruwe, 2005).

As has been discussed, the social skills of DHH students may be affected by several factors. Researchers and experts in the field of DHH education argue about which educational setting is better, the special class or the mainstream school. The choice of educational setting for DHH students is not the only factor that affects their social skills. Other factors influencing their social characteristics also affect inclusion. For example, the status of the parents' hearing, the type of communication used in the school and home, and the level of cooperation between the family and the educators must all be taken into consideration (Swanwick & Watson, 2005).

It could be argued that these individual characteristics cannot be extrapolated to all DHH students. This discrepancy could be attributed to that most of DHH studies have focused on the hearing loss in identifying their characteristics. This could be because of that most of the assessment's procedures for DHH students are often based on spoken linguistic and other individual or internal abilities' factors. The mental and psychological characteristics of DHH individuals tend to be similar to hearing peers in case of considering sign language or the preferred communication style in these evaluations. There is a possibility that the situation could be improved, so rethinking about DHH individuals' characteristics is required with consideration for social and external factors of the wider community rather than internal abilities. This perhaps has more effectiveness as inclusive education is a social phenomenon.

4.10 Chapter Summary

The history of DHH individuals indicates considerable interference by hearing individuals in their education and mode of communication. Communication style plays an essential role in inclusion, making the context of inclusion of DHH individuals unique. There may be pressure from Deaf Culture on the success of inclusive education as they may like to be independent; this could be a reaction to longstanding pressure from the medical perspective (see Sections 4.2.1 & 5.5.1), which refers to segregation, and associated societies' attitude toward them. The mental and psychological characteristics of DHH individuals tend to be similar to hearing peers. They have proved their linguistic skills in sign language and spoken oral and verbal approaches, whether or not they receive early intervention; we need therefore to redirect our focus towards external factors rather than their internal capacities.

Chapter Four: The Concept of Inclusive Education

4.1 Introduction

This literature review is based on a search of relevant studies on levers for successful practices of inclusive education for DHH students. It reviews the historical background of educating SEN/DHH students and of inclusive education internationally, showing how provision for DHH students has been shaped. It also provides definitions, developments, and key features or distinctions of the two concepts of integration and inclusive education and reviews the evidence for the differences between them. This chapter also covers the educational experiences of DHH students to document the provision made for them. It also investigates potential factors affecting the inclusion for DHH students, exploring the ways in which these factors could stand as support or barriers. Last, this chapter notes a paucity of previous research in the Saudi context.

4.2 Historical Background

This section reviews the international history of educating students with SEN/DHH and inclusive education. It is organised chronologically and highlights three periods. It acknowledges the nature of difference and how this has been handled differently across time and contexts. Labels in relation to individuals with disabilities have changed over time. Introduction of new names for disability across history can be recognised to reflect contemporary social prejudices and illuminate values in relation to inclusion (Morris, 2014). However, although there were different names over time and across cultural groups, disabled individuals have recognised the term 'disability' most widely across history. Hence, this term has been adopted in this section as terms used to refer to those individuals across their historical background.

4.2.1 Exclusion and Segregation

The literature indicates that from the start of the sixteenth century there were already international differences of opinion regarding the best way to communicate with DHH students. These differences confirm that DHH students had no rights to direct their own destinies. Some educators advocated the use of spoken language as the approach that would best help DHH students to become integrated into their local communities. These writers included De Leon (1520–1584), Jacob Pereira (1715–1790) and Alexander Graham Bell (1847–1922). In contrast, others supported the use of sign language as they considered that to be the natural language for Deaf people, seeing them as a minority with a unique culture. This group included Juan Bonet (1579–1620), De L’Epee (1712–1789), Thomas Pride (1715–1806), Sicard Roche (1742–1822), Thomas Gallaudet (1787–1851), and Laurent Clarke (1785–1869) (Al-Turki, 2005; Al-Rayes, 2007).

The history of education for students with disabilities eventually underwent a social shift due to the efforts of disabled and other interested people. However, throughout the earlier periods, they suffered mostly from inferior and harsh treatment. Between the mid-eighteenth century and the mid-nineteenth century, people often saw disabled individuals as a threat to society and to social life, and a policy of ostracism prevailed to protect social prosperity. This period was the ‘industrial era’, a time when Western nations were looking for ways to increase production through their labour force, and this led them to exclude disabled individuals from regular education (Oliver, 1990). People thought it would overload the government and taxpayers if the disabled were to be educated in regular schools (Tomlinson, 2012).

Although, for example, the Forster Education Act in the UK introduced 'elementary education for all' in 1870, this act contained a very little provision for disabled people, and the vast majority of them were likely still deprived of education.

Moreover, for the Deaf, in Milan, Italy (1880), the division between the supporters of sign language and verbal approaches came to a head at the 'The Milan Conference', or the Second International Congress on Education of the Deaf. At this gathering, it was decided that the verbal approach was the best form of communication for Deaf students and must henceforth be used and the use of sign language with the Deaf must be prevented (Al-Rayes, 2007). Thereafter, sign language was internationally suppressed, and Deaf students were even sometimes forced to use verbal approaches and prevented from using sign language to communicate. The American, Alexander Graham Bell (1847–1922) had a great influence in making this decision; he was strongly opposed to the use of sign language by the Deaf, even in their special organizations, claiming that he had successfully taught a Deaf student to improve his spoken language through the verbal approach (Al-Turki, 2005). The verbal approach thus continued to be the dominant way of educating and communicating with Deaf students during the late nineteenth and early twentieth centuries. It can here be pointed out that it was trespassing on the rights of Deaf students to prohibit them from using their chosen language.

However, by the end of the nineteenth century, efforts were being made to care for children with sensory impairments. These included in the UK, for example, the Elementary Education, Blind and Deaf Children Act of 1893. This act included 'mentally defective children' and, since that time, special education programmes for various disabilities have steadily increased (Morris, 2014).

At the start of the twentieth century, although the expansion in special education continued, the rights of disabled individuals were still infringed. During the 1920s and 1930s, scientists who were interested in genetics elaborated on what they called 'eugenics'. This theory claimed that disabled people have weak genes, and this weakness gives rise to illegal acts involving drugs, illicit sex, criminality, and the failure to find employment (Hughes, 2004; Thomas, Walker, & Webb, 2006). Unfortunately, the idea of eugenics was supported both socially and politically, leading to individuals with mental or physical disabilities being 'diagnosed' as defective and undesirable and giving rise to segregation in hospitals, asylums, and special schools (Chitty, 2007). More complications arose, for instance, in the UK in 1921, when disabled students were classified into specific categories as the blind, Deaf, mentally defective, physically defective, and epileptic. All of these categories of people had to undergo tests, which developed over time into the Intelligence Quotient (IQ) test, which was believed to determine whether the disabled individual was 'educable' or 'non-educable' (Rieser, 2012). Hence, this view may underpin the medical view (see Section 5.5.1 forward in Chapter 5) for understanding disability, which calls for segregation in education.

The medical view of disability grew in the late nineteenth and early twentieth centuries, and its effects have continued ever since. This categorisation of disabilities supported the 'deficit perspective' which is associated with labels that were, arguably, as lesser, lacking or inferior; the educational process of disabled students was therefore shaped by medical practitioners who carried the full responsibility for making decisions concerning education for the disabled (Thomas, Walker, & Webb, 2006; Tomlinson, 2012).

By the middle of the twentieth century, the power of the medical profession had increased to such an extent that medical professionals had become the decision-makers in relation to the education of disabled individuals (Rieser and Mason, 1992). Although the Education Act of 1944, in the UK, for example, determined that secondary education should be available for all, the isolation of disabled students only increased owing to the IQ tests according to which the students were placed educationally in relation to their 'ability' or lack of ability. By this time, 11 distinct categories of disabled individuals were recognised and the label 'abnormal' was widely used to refer to disabled children at that time, resulting in having unequal opportunities in education for them (Trowler, 2003; Tomlinson, 2012; Rieser, 2017).

In the 1950s and 1960s, the orientation towards special education progressed, and psychologists gradually took power away from the medical professionals, and standardised tests were conducted inside schools rather than a clinic-based assessment (Clough & Corbett, 2000: 12). Since that time, remedial intervention programmes for disabled students have aimed to overcome the old negative stereotypes, and this has coincided with the provision of special educational (Morris, 2014). This situation continued until the Education Act of 1970, which catered for the education of 'Handicapped Children' (Morris, 2014).

To summarise, differences regarding the best way to communicate with DHH students confirm that they had no rights to direct their own destinies. Deaf students were in some cases prohibited from using their chosen language. Disabled individuals suffered from inferior and harsh treatment in some places. The idea of medicalisation was supported both socially and politically, leading to individuals with disabilities being segregated in hospitals, asylums, and special schools. The deficit view calls to inferior labels leading to segregation in education and medical practitioners shaped the

educational process of disabled students. The disabled students were placed educationally in relation to their ability according to the IQ tests and, subsequently, having unequal opportunities in education. The power was taken later gradually from the medical professionals to psychologists, which contributed later in establishing more socialisation.

4.2.2 Socialisation and Integration

During the 1960s, the education of disabled children was reconsidered amid increasing concerns that there should be “*different kinds of education for different kinds of children*” (Cline & Frederickson, 2009: 68). This re-thinking led to international changes in the consideration of educational regulations (Trowler, 2003). Increasingly, there was some movement away from medical views towards socialisation, and during the sixties, the social perspective motivated scientists to focus on special education (see Section 5.5.1 forward in Chapter 5). Therefore, ten years later, The Education Act of 1970, for example, included all disabled individuals and this triggered the start of integration which led subsequently to a remarkable expansion of special units with programmes to accommodate all categories of special education (Tomlinson, 2012).

Moreover, technological advancements have also resulted in important outcomes for disabled students and alternative education strategies. For instance, hearing aids and cochlear implants have highlighted the potential of DHH students to hear sounds, and through these hearing technologies, DHH students have become increasingly able to develop spoken language; additionally, these opportunities for detecting and tackling hearing loss can occur early in a child’s life (Salter, 2015).

In addition, In the last twenty years, the New-born Hearing Screening Programme (NHSP) has made it possible to detect hearing loss in new-born babies, even on the

first day of their lives (Salter, 2015). It is evident that the early detection of hearing loss opens the way for early hearing and linguistic interventions, leading to significant outcomes where children with hearing loss can be placed in mainstream schools and be successfully integrated (Young & Tattersall, 2007; Watkin & Baldwin, 2011). It is possible that technological developments have increasingly drawn constructive attitudes and values, and over time have led to some recognition of equal educational rights (Oliver & Barnes, 2010). However, the division between those interested in DHH education regarding ways of communication has added more pressure.

Fresh evidence that the linguistic skills of Deaf students can be improved by using sign language has emerged. Furthermore, sign language has emerged as an independent language with its own grammar that is equivalent to that of the spoken language (Brennan *et al.*, 1984). This indicates the need to reconsider the role of sign language in educating and communicating with Deaf students. For example, the British Sign Language (BSL) has enhanced communication among the DHH, so the need to develop the spoken English language has become less significant (Swanwick *et al.*, 2014). Furthermore, the Bilingual-Bicultural strategy proved to be a reinforcing factor that improved the linguistic and educational experience of Deaf students in the educational setting. With these developments, Bilingual strategies using sign language led to changing attitudes regarding the possibility of an alternative educational approach for Deaf students (detailed more in Chapter 3).

As can be seen, educationalists and the policy relating to DHH education have been confused about which method is more effective in mastering the language for DHH pupils, as both approaches have evidence in their favour. It is evident that educators and scholars are also divided in their views about the best approach to educate Deaf students within the available provision. Thus far, this section has shown a shift to

socialisation and the emergence of integration as an educational option. In the next section, I will present how inclusion was generated.

4.2.3 Emergence of Inclusive Education

The concept of 'inclusive education' emerged internationally when, in June 1994, the United Nations Educational, Scientific and Cultural Organization (UNESCO) hosted an international conference in Salamanca, Spain. The Salamanca Agreement was signed by 92 countries and 25 international organisations at The World Conference on Special Needs Education: Access and Quality (Al-Mousa, 2010; Shyman, 2015).

The following was announced:

[All governments are to] give the highest policy and budgetary priority to improve education services so that all children [can] be included, regardless of differences or difficulties ... adopt as a matter of law or policy the principle of inclusive education and enrol all children in ordinary schools unless there [are] compelling reasons for doing otherwise; develop demonstration projects and encourage exchanges with countries with inclusive schools; ensure that organizations of disabled people, along with parents and community bodies, put greater effort into pre-school strategies as well as vocational aspects of inclusive education; [and] ensure that both initial and in-service teacher training address the provision of inclusive education. (UNESCO, 1994, cited in Shyman, 2015: 355–356).

However, several lines of evidence suggest that earlier efforts contributed to inclusion prior to 1994 (Florian, 2002; Landorf and Nevin, 2007). An the example of this, Landorf and Nevin (2007) indicate that inclusion was prompted by the Civil Rights movement of the 1960s, when the right was established to equal opportunities in education, regardless of all differences. Between 1985 and 1990, the Counties and Local Educational Authorities in the USA and Canada, for example, started to include students with SEN in regular classrooms (Florian, 2002). Another example is in the UK, inclusion was also supported in the early nineties when the idea of integrating students with SEN was enhanced by the establishment of yearly inclusion conferences

(Florian, 2002). Generally, these events in these countries contributed to the emergence of inclusion nationally and prompted the international community to adopt the same approach.

Gradually, the concept of inclusion has emerged as opposed to integration, and regular schools are required to increase their capacity to include all children with their different needs. The integration was born in the 1960s and has been superseded by the movement of inclusion (Jahnukainen, 2015). Terms such as 'full' and 'total' inclusive education have been introduced to refer to the inclusion of a child with SEN in the general classroom for the whole school day (Fox, 2013). The emergence of inclusive education has played an essential role in the process and practices of educating children with impairments, including DHH students. Inclusion has brought advantages by encouraging the whole of educational practice and policy to ensure the success of students with SEN who study with their peers in inclusive settings (Salter, 2015).

Moreover, in the UK, for instance, the Departments of Education and Health (2014) indicated that shifts had occurred in the provision for students with SEN in England and Wales and, due to the empowerment given to these students and their parents, they could now contribute to solving most of the difficulties (DoH, 2014). It could be seen that a new interactional perspective is moving beyond the dispute between the medical and social views that have been associated with the differential positioning of students with SEN/DHH (more explained forward in Section 5.5.2).

Inclusion may have been brought about by an increase in the recognition of the individual rights of students with SEN, and one could ask why segregation still even exists in Western countries. For example, the Warnock Report (1978) claimed that the

vast majority of pupils with SEN should be placed in regular schools, although it identified some categories to be educated in special schools. Deaf students were one of these, as they can face difficulties in mainstream settings. In response to these difficulties, there is a possibility that the other provisions made for students with SEN can be seen as alternative educational options. Moreover, individuals with SEN and their parents have a freedom to choose the best provision from their own perspectives when they are empowered to do so. Therefore, it is almost certain that factors from the wider community could affect this decision. Nevertheless, the vast majority of the parents of Deaf students are now choosing inclusive settings owing to the new technologies and the advanced academic achievements of local regular schools (Salter, Pearson, & Swanwick, 2015).

4.3 Inclusive Education and the Influence of Socio-Cultural Differences

Although inclusive education is the increasingly recommended approach to dealing with this question, of how best to educate students with special needs in diverse parts of the world, there is still a debate among scholars regarding a comprehensive definition for inclusive education. Nevertheless, countries such as the USA and the UK, for example, have provided much of the literature that has been used for understanding the features of inclusive education.

Although the field of SEN and inclusion is covered mainly by studies from the West (Hassanein, 2015), the Islamic approach contains numerous aspects that do not contradict what the literature of the West has concluded, concerning inclusion and disability (Malti-Douglas, 2001). Although the long-term goals for developing successful inclusive education for students with SEN are similar in both Western and Arabic Islamic countries, differences in their socio-cultural dynamics put pressure on

the concept of inclusive education and how to successfully evolve it. These differences are not, however, well covered in previous research.

The concepts of disability and inclusive education are shaped by socio-cultural principles, and no global agenda can fit all cultures (Hassanein, 2015). It can be argued that they should be understood in relation to their appropriateness to each socio-cultural context. For example, understanding inclusion requires a broader understanding of socio-cultural differences than just an understanding of disabilities (Hassanein, 2015). This study assumes that Saudi specialist teachers' knowledge of inclusive education is constructed within a socio-cultural context that is different from that of the West and Europe. Furthermore, the complexities of inclusive education, of SEN, and specialists' understanding of these phenomena should be studied within a framework that recognises socio-cultural influences.

The need to take note of socio-cultural issues was raised by Pagden (2003) who mentioned objections raised by the Saudi delegation to the committee drafting the Universal Declaration of Human Rights in the middle of the 20th century. They protested that the committee was mainly considering Western criteria; the Saudi delegation claimed that the committee had failed to achieve uniform standards that would be applicable to all countries. The committee had assumed that the inclusive education of the West should be considered the universal approach, but this approach might not work in other socio-cultural contexts such as Saudi Arabia. Other socio-cultural groups have their own practices and beliefs, and they may not understand inclusive education and SEN in the same way as Western culture. Cultural differences can lead to different practices and perceptions of inclusive education (Hassanein, 2015).

It is worth mentioning here that there is more than one Islamic culture to consider when researching the impact of the social aspects. These social dimensions, such as the variation in the level of segregation by gender, are evident in different Islamic countries, even though there is only one Islamic principle. Therefore, the interpretation of inclusion and SEN could be influenced by other social factors within Islamic countries, including their individual policies and economies (Hassanein, 2015). For example, the Kingdom of Saudi Arabia and Somalia are both Arabic-Islamic countries; however, the budgets of the Ministries of Education in these countries are very different, based on their individual economic factors. Therefore, an understanding of inclusion should be built on the social aspects of the specific culture. The issues relating to SEN, to inclusive education, and to socio-cultural contexts will now be discussed from the viewpoints of the Islamic-Arabic countries, in particular how these differ from Western and European countries in their practice and understanding.

The first of these differences is segregation by gender. In Saudi Arabia, almost always all students and staff are segregated by gender (Ministry of Education of Saudi Arabia, 2019) and this reflects religious and social influences. This rarely occurs in Western countries, particularly in primary schools. Such a socio-cultural difference has implications for the enactment of 'full' inclusion of students with SEN. It could be argued that, from the Western countries' perspective, full or successful inclusion would demand the inclusion of students with SEN with both their male and female peers, while in Saudi schools, a full and successful inclusion would mean education with peers of the same gender. This would be most satisfactory for the students with SEN, their families, and the stakeholders as it would be compatible with their socio-cultural beliefs. However, in the West, such gender separation might not be acceptable in terms of inclusion.

A further socio-cultural difference is a perspective regarding the rights of students with SEN to inclusion. As showed in the historical background (Section 4.2) that the history of individuals with SEN in the Western countries began with exclusion and ostracism, then improved over time with the emergence of the medicalisation and segregation, followed by social integration, and then, most recently with inclusion (Jahnukainen, 2015). It could be inferred that people in Western countries may view inclusive education as a logical progression arising from the recognition of the rights of students with SEN.

In the Saudi context, history tells a different tale. Throughout most of the ages of Islam, visibly impaired students did not suffer from policies of exclusion or ostracism. During the period 1750 to 1850, and even before the 'industrial era', students with Deafness, Blindness, and physical impairment in Saudi Arabia and other Arabic-Islamic countries were mostly included in educational institutions and in society. They were able to study together with their non-disabled peers, full time until special education was established in Saudi Arabia in the 1950s (Al-Mousa, 2008; Aldabas, 2015). Segregation into special schools began in Saudi Arabia in alignment with the international development of special education (Al-Mousa, 2010). It could be inferred that the kind of exclusion of SEN individuals from education that might have existed in the history of Western civilisation (Oliver, 1990) was less prevalent in the Islamic cultures where inclusion or mainstreaming of disabled individuals already existed (Aldabas, 2015) (see Sections 4.2.1 and 2.3). This could also imply that the stigmatisation of disability might be therefore a modern (Western) concept (Al-Aoufi, Al-Zyoud and Shahminan, 2012). For this reason, one could say that while Western people see inclusion as a progressive development in the education and rights of SEN individuals, in Islamic countries, and in the Saudi context, inclusive education may be viewed as returning rights that were

robbed by alignment to the policies of Western civilisation. Therefore, the influence of socio-cultural contextual differences should be taken into consideration if one is to develop successful inclusion policies for DHH students in a context that has a different history and different socio-cultural beliefs and perspectives from that of the Western countries.

Inclusion implies additional features, such as the importance of a feeling of familiarity within a community. One of the Saudi values is respecting and appreciating neighbours. This could also exist in broader Islamic societies, as the Prophet Mohammed commented about neighbours in Islam. A neighbour, according to the following saying of the Prophet (hadiths) is entitled to our sympathy, kindness and help, qualities without which a man or a woman cannot be a true believer and may even be denied the blessings of God and Heaven.

“Anyone who believes in God and the Last Day must be good to his neighbours”. (Narrated by Muslim. Hadith number 48).

“By God, he is not a believer! By God, he is not a believer! By God, he is not a believer”, He was asked, *“Who is it, O Messenger of God?”* He said, *“It is he whose neighbour is afraid of his malice”.* (Narrated by Al-Bukhari. Hadith number 6016).

“He is not a believer in me who eats his fill and goes to sleep knowing that next-door neighbour is hungry”. (Narrated by Al-Tabarani. Hadith number 751).

According to these Hadiths, kindness to a neighbour is an unmistakable mark of faith and belief in the rewards of God and His Day of judgment. Moreover, a true believer is one who spares his neighbours the harm of his hand and tongue. Charity begins at home and that the best of people is the one who is best to his/her family and neighbours. This means that in the Saudi Islamic context, it is necessary for social neighbours to respect, interest, and look after each other as an inclusive society.

Another tale in Islamic history gives an example of how Islam is keen on inclusion. One of the companions of Prophet Mohammed who was blind (Abdullah bin um Maktoum) had an interesting story at the beginning of Islam to be included fully in the older Islamic society. According to the following saying:

Abu Hurayrah reported: A blind man came to the Prophet and said: "O Messenger of Allah, I have no one to lead me to the mosque." He asked the Messenger of Allah to allow him to pray at home, which the Messenger of Allah did. When the man was leaving, the Prophet called him back and said: "Can you hear the Adhān?" He replied in the affirmative. Thereupon, the Prophet said: "Then respond to it". (Narrated by Muslim. Hadith number 1091).

In this tale, the prophet encouraged his blind friend to come to the mosque five times a day as a belief that Islam included all member of the community who able to practice prays in the mosque away from doing it in separate or segregation.

It could be argued that Islamic societies set a precedent by incorporating students with SEN; however, Western countries have recently evolved an advanced socio-cultural mode of thought that may have a positive influence on the inclusion of students with SEN.

It should also be noted that the average number of children in Saudi families would often exceed the number common in Western families. There is a concern that having multiple wives in Islamic societies may undermine the role of parents in relation to their responsibility for looking after or meeting the SEN of a disabled child, who may constitute a burden to parents who have other children. This may contribute to a sense of stigma since the Saudi community is mostly a tribal society, interested in the health and genetic history of couples. Couples in Western society have more opportunity to get to know each other, and their concerns before marriage would be more about the

love that exists between them, and they would be less concerned with their health history in terms of disabilities.

In Arabic tribal communities, there is normally no dating before marriage; instead, the interest is mostly in the health history of the couple. The existence of Vitiligo or disabilities in current family members or even deceased grandparents, often prevents marriages from occurring. There is a likelihood of stigma for families that have a child with a disability. It is possible that disabilities may therefore not be disclosed, or families may assert that the causes are something other than genetic abnormalities. Such families may reject having their child labelled with SEN terminology due to fears of this being associated with a genetic defect resulting in weakness or disability. From this argument, it becomes evident that socio-cultural issues are a significant consideration in qualitative research that focuses on the participants' views and understanding of the phenomena of disability and inclusion. The Saudi context may be compatible in some respects with Western countries, but socio-cultural issues should also be considered in studying social phenomena in cases where it is possible that the outcomes could be affected.

“[In terms of disability], the word “disability” cannot be found within the Qur’an or Hadiths (religious texts of Islam), but the concept of Muslims having inabilities or special needs and how they interacted in society can be found throughout the history of Islam. The most common Arabic equivalents used now for disability are iaāqa, awaq and tawīq. There are also various euphemisms used in the modern literature to refer to people with disabilities such as (special groups), (people with special needs), (the abnormal individuals), etc. However, these terms cannot be traced in early Islamic literature ... It is noteworthy that Arabic terms denoting specific disabilities such as blindness, deafness, dumbness and so forth are similar to their English equivalents in this regard. However, these words in Arabic do not indicate that these persons are disabled”. (Hassanein, 2015: 3-4).

Although the Islamic terminology used in the above quotation is old, it aligns and does not contradict advanced concepts and contains no conflict with the rights of SEN individuals.

Historically, the terminology related to inclusion has changed, leading to a new consensus. Although there are mutual elements in the definitions of inclusive education, various definitions have been suggested, based on their different viewpoints. The overall aim of the Saudi Ministry of Education is expressed as:

“to have students understand Islam in a correct and comprehensive manner; to plant and spread the Islamic creed; to provide the students with the values, teachings and ideals of Islam; to equip them with various skills and knowledge; to develop their conduct in constructive directions; to develop the society economically and culturally; and to prepare the individual to be a useful member in the building of his/her community” (UNESCO, 2006; cited in Alanazi, 2012: 29-30).

Hence, it could be argued that the Saudi educational policies teach only Islam as a rule for living. Religious diversity may not constitute a threat as the general goal in the Islamic culture is inclusion, nevertheless, they may see this diversity is constructed mostly only by the Islamic rules. However, Saudi 2030 Vision could include changing or improvement in the education system.

Students in the UK, in contrast and as an international example of education, have been taught comparative religion to increase respect, tolerance, and freedom of choice. This may lead to a debate about the meaning of inclusion in schools (Ainscow, 2005a). The Warnock Report (1978) identified different educational options for SEN students (see Appendix 1). Although this report predates the widespread use of the concept of inclusion, it could be argued that the distinction between these options could be understood as a gradation between inclusion and integration. Nevertheless,

the UK House of Commons Education Select Committee Report on SEN in 2006, Section 64, emphasises the necessity for a precise and definitive definition of inclusive education (Coryton, Hargreaves, & Marshall, 2008). It could be argued that more clarification is still needed in the UK despite its focus on making sure that all human and physical resources are provided in the inclusive classroom.

It could be argued that Western frameworks, for example in the European countries, The USA, and Australia, might not be totally compatible with the Saudi context where there is segregation by gender and other differences, as indicated earlier in this section. In Saudi Arabia, Islam provides the framework for plentiful parts of social life, and in this SEN, Islam in some ways is not the same as any other philosophy or religion (Hassanein, 2015). The Saudi socio-cultural context in all probability combines views involving both stigma and acceptance of SEN, so its view of equality co-exists with the idea that those with SEN will likely suffer from barriers throughout their lives and should therefore be called disabled (Al-Hano, 2006). In the same vein, Al Thani (2006) argues that in the Arab countries, particularly in nomadic Arabic areas, the perception of stigma on families could be more prevalent because there has been less education and, subsequently, less empowerment for women, and therefore women could experience more possible difficulties with SEN. More awareness and teaching are required in the Arabic regions to change these attitudes.

4.3.1 Definition of Inclusive Education

Several definitions of inclusive education have been proposed. For Powers (2002: 236), inclusive education means

“ensuring equal opportunities for all pupils, promoting acceptance of disability and difference, positive attitudes to deaf people via, for example, sign language classes for hearing pupils”.

Wedell (1995: 103) uses the term inclusion to explain that *“the system rather than the individual school is responsible for meeting the individual learning needs of all students”*. Another definition of inclusive education is given by Deiner (2004: 24) who sees it as *“placing children in an educational setting that provides the support that meets the children’s emotional, social, and educational needs”*. These definitions emphasise different features of inclusion, which are: the ethos of inclusive education, equivalent education, the group involved in the inclusion, required supports and attitudes, and accepting variations. However, the literature that defines inclusive education is dependent on the surrounding circumstances of each culture, its policy, and history (Ainscow, 2005b).

The following comprehensive definition is useful because it aims to achieve an internationally sensitive definition of inclusive education based on social justice and familiarity for students with SEN/DHH. In the table below Shyman (2015: 361) includes several useful dimensions in his definition of inclusive education.

Table 4. 1 Defining Inclusive Education

1.	Inclusive education is an active process; all students receive their service delivery in the regular classroom.
2.	All the required support is provided in the regular classroom, including the modification of curriculum material and other accommodations.
3.	Including students with SEN in regular classrooms shows an evident preference and knows what the other setting options are.
4.	The services will be provided in separate places only in instances when providing access to the curriculum has been unsuccessful, and only with the express agreement of the students with SEN involved.
5.	Providing replacement support in separate places will be done systematically and at an appropriate level. The students with SEN will stay for as much of the day as possible in the regular classroom, based on their own preference.
6.	The inclusion of students with SEN in the regular classroom will be dependent on the student’s preference and on the appropriateness of the support provided rather than on the educators’ preferences.

Source: (Shyman, 2015)

In addition to the dimensions listed above, this definition includes additional features such as mentioning students with SEN/DHH in inclusion; educational modifications such as delivering services in the general classroom; neighbourhood schools; treating students as a non-homogeneous group; and a consideration of student readiness. The conceptualisation of inclusive education is one of the objectives of this study as it investigates specialists' understanding of the term 'inclusive education'. This useful definition by Shyman has been adopted for this study owing to its including not only all the dimensions discussed in previous definitions but also unique features. It is also valued for its thoroughness and modernity.

In short, given the variations in the definitions presented above, it is necessary to understand the concept of inclusion in all its complexities. In the next section, definitions of integration will be discussed.

4.4 Integration

The concept of integration originated in the 1960s (Jahnukainen, 2015) as a result of the isolation experienced by students with SEN in special schools. It refers to the opportunity given to SEN/DHH students to enter mainstream schools but with limited engagement in the regular educational environment. So, what exactly is meant by integration? The following table (4.2) provides some definitions for the integration of SEN/DHH students into mainstream schools.

Table 4. 2 Definitions of integration

Author(s)	Date	Definition
Sarason and Doris	1979	Integration means equal access to education for disabled and non-disabled students.
Fish	1985	Integration is a process which requires continued and planned interaction with contemporaries and the freedom to associate in different groups.
Rispens	1994	Every aspect of integration—definition, motives, aims and levels—shows a large diversity in practice. This diversity makes it difficult to draw overall conclusions and to establish a comprehensive understanding of integration.

Source: (Avramidis, 2001; cited in Alshahrani, 2014: 56)

These definitions highlight that integration took students with SEN away from segregation and into mainstream schools during an earlier period, and it gave them an equal chance to interact with other peers. However, the definitions indicate a lack of clarity regarding how integration can be practised. The following ideas were modelled on the Warnock Report (Warnock, 1978), where integration was understood by three realistic characteristics, which are:

1. Locational integration: referring to the location of education for students with SEN in the same school as non-SEN pupils.
2. Social integration: all educators, school staff, hearing peers, and parents are asked to positively reconsider their attitudes towards students with SEN.
3. Functional integration: all students are to work jointly during the school day and during all extracurricular activities (Rose, 2000).

These three characteristics of integration are valuable as the first objective of this study is to document the experience of DHH students and specialists in mainstream schools in the Saudi context.

To review, giving the variations in the definitions shown above, it is necessary to acknowledge the complexity of the concepts of integration and inclusion. However, under the next heading, the differences between inclusion and integration will be discussed and the key features of both concepts will be explained. This will also help to know the kind of provision provided, and what is understood by the term 'inclusive education'.

4.5 The Differences between Inclusion and Integration

The education of SEN/DHH students has challenged different systems of educational provision, introducing concepts such as exclusion, segregation, normalisation, mainstreaming, integration, the least restrictive environment, and inclusion. However, there is considerable ambiguity in these terms, such as the difference between the concepts of inclusion and integration, and they have been frequently used interchangeably when talking about educating students with SEN in mainstream schools (Jahnukainen, 2015). This is exemplified in work undertaken by Armstrong (1998), who claimed that, as both inclusion and integration took place in mainstream schools, these terms could be used alternatively. In Arabic countries, such as Saudi Arabia, integration is called 'Aldamg', and inclusive education is referred to as 'Aldamg Alshamiel', with a clear overlap in the words used for these concepts. However, while both are located in regular schools, they are not the same and there is considerable evidence that demonstrates that inclusion and integration are entirely different (Jahnukainen, 2015; Bendová & Fialová, 2015; Rodriguez & Garro-Gil, 2015; Doherty, 2012a; Shyman, 2015). In the following, this evidence will be discussed.

First, by looking at the times when integration and inclusion occurred (see Section 4.2), it will become clear why the timing is critical and how it affects the validity of these concepts, as Jahnukainen (2015) states:

“During the 1960s, new ideas of normalisation, mainstreaming and later, integration were born and the demand for the least restrictive environment for every child was set.... [However,] integration and mainstreaming have, since the 1980s, been replaced by the inclusion movement”.
(Jahnukainen, 2015: 60)

There are two useful implications here which suggest, first, that ‘normalisation’, ‘mainstreaming’, and even ‘the least restrictive environment’ are likely to be used interchangeably with the term ‘integration’ as they emerged during a similar period and had similar provisions or programmes at the time. Second, integration appears to be older than inclusion, and inclusion may be more ‘modern’ than integration and reflects the development of newer ideas. Therefore, it would be inappropriate to use the term inclusion interchangeably with integration or the other terminologies mentioned above as they have different features. However, I will use the phrase ‘mainstream schools’ in this study as it was used by the Saudi educational system to refer to the schools of DHH students, which places them in regular schools.

It is essential to ask how to distinguish between integration and inclusion as they are implemented or practised in regular schools. In other words, what are the practices or characteristics of these schools? Bendová and Fialová (2015) identify seven distinct practices of integration and inclusion that help to identify the type of provision (see Table 4.3), and these can clarify the mechanisms of inclusion and integration and their application:

Table 4. 3 Typical characteristics of integrated and inclusive education

Integration	Inclusion
A focus on the needs of individuals with disabilities	A focus on the needs of all students
The specialist teachers are responsible for students with disabilities	The regular classroom teachers are responsible
Specialist interventions	Good teaching for all
Of benefit for the integrated pupil	Of benefit for all pupils
A partial change in the environment	A total change in the school
A focus on the student with disabilities	A focus on the group and school
Special programmes for students with disabilities	The overall strategy of the teacher

Source: (Jones, 2004; adapted by Bendová and Fialová, 2015: 814).

From this, it can be understood that inclusive education is not only for students with SEN. All students, including the students with SEN, fall under the responsibility of the regular classroom teacher; accepting special educational needs is one way of accepting individual difference. Conversely, integration focuses on the students with SEN and their disabilities; they fall under the responsibility of the special education teacher. Inclusion does not ignore the SEN of students; it just facilitates greater social justice for all. It is therefore apparent that integration and inclusion will be different in practice. Significantly, all these characteristics or features are applied in practice and can be present in mainstream schools. Therefore, these practical features can be useful for documenting the experience of DHH students in mainstream schools, and they would help one to decide whether the schools practised integration or inclusion.

Rodriguez and Garro-Gil (2015) propose additional practical features. They suggest that integration in mainstream schools socialises students with SEN within places such as the regular classroom, the special education classroom and pull-out services. In contrast, inclusion socialises students with SEN into the broader community, where they find themselves in regular classrooms, schools, and communities. They add that

there are also differences in educational policies, teaching methods, and resources. Vanderpuye (2013) adds that, in integration, students with SEN spend only part of their time in regular classrooms, where they just attend without the provision of services, and the rest of the time they return to their separate classrooms.

With the integration, students with SEN can be forced to fit in with the regular curriculum and educational system without special supports or facilities. Inclusion, however, involves the entire restructuring of the school system to ensure that all the learners' requirements are met in an environment where all pupils will be seeking successful accomplishment through partnership. This situation involves several noteworthy differences: placing students with SEN in regular schools and in the wider community; providing the necessary curriculum and services; and changes in the educational procedures. This suggests that integration and inclusion exhibit educational and social differences in that, in the latter, the needs of students with SEN are considered and prepared for from the outset. A further difference is that integration involves special classrooms at regular schools as an educational option, while inclusion does not involve students with SEN in attending these special classrooms, but instead seats the students with SEN in the regular classroom throughout the school day.

Shyman (2015) identifies further features that identify inclusive education as different to integration. These are: (1) placing students with SEN in neighbourhood schools; (2) maintaining an appropriate proportion of students with SEN in the mainstream school; (3) establishing heterogeneity in groups; (4) placing students with SEN in suitable classrooms with their peers of the same grade and age. The application of these features of inclusion contrasts with integration, which does not include these provisions. Doherty (2012b) points out that the goal of integration is to return students

with SEN to mainstream schools, whereas inclusion aims at the total modification of the whole school system. This means that there will be variations in the support available for all students depending on whether they find themselves in an inclusive or integrative setting.

Inclusion aims to educate students with SEN among their peers and encourages schools to be ready to serve all students, regardless of disability. In contrast, integration seeks to promote the willingness of students with SEN to be placed with their peers (Jahnukainen, 2015). Ainscow (1995) notes that the level of support provided by mainstream schools for DHH students differs in both quantity and quality. The goal of integration is to develop academic and social skills, while inclusive education looks forward to continuous adjustments. The goal of inclusive settings is to create significant diversity that responds to the needs of all learners, regardless of whether they are DHH, hearing or any other kind of student. Ainscow (1995) concludes that diversity and its associated facilities are helpful not only for SEN/DHH students but also for the hearing and non-SEN students. It can, therefore, be argued that inclusive education and integration differ in their intended aims. This raises the question of what the overall goals of programmes in mainstream schools for educating DHH students are, and whether they are compatible with the aims of integration or inclusion. The answer to this question could be a useful indicator for documenting the experience in Saudi Arabia.

The evidence presented in this section suggests that inclusive education and integration have different features, which are influenced by the time when they first occurred, their practices, the educational and social structures involved, and their intended aims. Inclusive education seeks to accommodate all students as members of mainstream schools regardless of their level of need or ability. In contrast, it is

'accommodation' rather than the 'assimilation' that takes place in integration programmes, which are without support or services (Avramidis & Norwich, 2002). This distinction is considered vital because each concept has different sociological implications (Rodriguez & Garro-Gil, 2015). Evidence relating to these distinctions is helpful in recognising the experience of DHH students in mainstream schools and what is understood by the phrase 'inclusive education'. It can be argued that groups or communities practising different functions such as principals, administrators, and regular classroom teachers in Saudi mainstream primary schools have generally failed to describe the differences between integration and inclusion realistically. As a result, they have also neglected to document the experience of DHH students in the Saudi context (Allothman, 2014; Alshahrani, 2014). Therefore, this study seeks to confirm the type of current educational provision and the understanding of inclusion by participants or communities who are practising and involved in this provision, notably, the DHH students and the specialist teachers in Saudi Arabia.

4.6 Experiences of DHH Students and their Educational Provision

Having discussed the critical features of inclusion and integration, it is useful to review the literature that discusses the educational options for SEN/DHH students and what currently exists that could help documenting the experience of DHH students in Saudi Arabia. Rodriguez and Garro-Gil (2015) present these options as based on Western countries history:

1. Exclusion: students with SEN were excluded from all social settings (family, school, community).
2. Segregation: the idea developed that they were educable, although with the provision that they would be separated from society.

3. Integration: the socialisation of students with SEN within public schools in regular classrooms, special education classrooms, and 'pull out' services.
4. Inclusion: the socialisation of students with SEN into the broader community where regular classrooms, schools, and communities are their normal spaces.

These divisions may explain the chronology of the educational options and educational history. However, exclusion is no longer acceptable, and this study attempts to explain modern educational placements and their details. The different contemporary educational options exist to provide a continuum of services (Tye-Murray 2014).

In contrast, Eriks-Brophy *et al.* (2006) present five educational options, internationally recognized, that currently exist for DHH students:

1. Residential institutes or special day schools/institutes.
2. Special units within a general school.
3. Regular classroom placement with support from a special resource room.
4. Regular classroom placement with support services from peripatetic teachers.
5. Regular classroom placement with services available to all students in the school.

It can be assumed that the last three options involving regular classroom placements represent different forms of mainstreaming for DHH students in regular schools and classroom placement. However, while special classrooms (representing integration) and special schools (segregation) still exist as educational options for DHH students, few details regarding them are provided in this study. Research on this subject has been restricted to limited details and comparisons of these educational options for DHH students.

The Warnock Report (Warnock, 1978) (see Appendix A: Table 4.4) lists ten detailed educational options for SEN/DHH provision which are still considered valid in meeting the needs of students with SEN across the world. This comprehensive list of educational provisions for SEN/DHH students includes a range of options, which are needed for SEN/DHH students everywhere. It could be argued that the distinction between these provisions could be understood as ranging between segregation, integration and inclusion (although the concept of inclusion is not explicitly mentioned in the report). It could be understood that this report starts with ideal or full mainstreaming and then gradually moves down to less inclusive settings, and towards integration and then segregation. Moreover, for each option, sufficient details are given to enable documentation of the broader educational experience. Therefore, this list of provisions will be used in the current qualitative study to provide a framework to document the experience of DHH students in mainstream schools and how specialist teachers understand the phrase 'inclusive education' in the Saudi context.

4.7 Barriers and Support Relating to the Inclusive Education of DHH Students

The purpose of this section is to discuss the barriers and support that could affect the inclusion of DHH students in inclusive education. The obstacles and support to inclusive education have frequently been identified as one factor. For example, 'barriers' may refer to instances where support was not offered or was not appropriate to the needs of the students (Eriks-Brophy *et al.*, 2006). However, the term 'barriers' is used here more widely to include any factors, challenges, and difficulties that may hinder or impede the success or progress of DHH students within an inclusive context. The term 'support' includes any factors, services, facilitators, helpers, and enablers that may contribute to the success or progress of these students. The section below describes aspects of the barriers and supports that can affect inclusion. First, studies

that address the key factors influencing inclusion are discussed. These include the educational environment, the values and attitudes, training, and interaction and communication with DHH students. Second, Saudi studies will be considered, and finally, scope of previous research to elaborate a place for the current study.

4.7.1 Educational Environment

Studies in the field of inclusive education have scarcely considered the school environment in much depth as it affects DHH students. However, Avramidis (2001) reviewed the existing literature that covers factors relating to the school environment for all students with SEN. These factors were classified into *physical* and *human support* services and were shown to be vital factors in the inclusive education of students with SEN. First, the physical support services include the resources: teaching materials, IT equipment, a restructured physical environment, the provision of adequate and appropriate equipment and materials, the availability of adapted learning materials, and smaller classes. Second, human support services include the presence of school staff such as teaching support assistants, special education specialist teachers, speech therapists, a supportive headteacher, specialist resource teachers, and outside experts. Avramidis (2001) also reported on issues that negatively affect the physical and human support services that contribute to the successful inclusion of students with SEN. These included overcrowded classrooms, inadequately prepared materials, lack of opportunity within the timetable to plan with the teaching support team, little support available from outside specialists, and teachers who experience an overly heavy workload.

In this analysis of school environmental factors, Avramidis shows the importance of dividing the educational environment into the physical and human support services.

This is despite the shortage of studies that tackle the school environment as having the potential to support or hinder the success of inclusive education. This initial classification may help to clarify which are the critical services for DHH students. The physical and human resources for DHH students tend to increase or decrease depending on the individual needs of the students at any given time.

The need for additional support, to improve both the physical and human services, is recognised by other researchers as discussed below.

Several physical resources for DHH students have been identified, such as hearing technologies (Rekkedal, 2012), sound transmission technologies (Rekkedal, 2013), and various examples of learning and physical teaching services (Hadjikakou *et al.*, 2005; Hanks, 2003; Luetke-Stahlman, 1998). The table 4.5 (Appendix B) identifies different materials required to enable DHH students to be successful in mainstream schools.

These material resources have been collated from studies interested in creating a successful educational environment for DHH students regardless of the provisions provided in the programme. The acoustic technologies are imperative for inclusive schools that have DHH students. This review has shown that the material resources provided for DHH students must include serious modifications to stabilise the DHH students and to enable them to profit as much as possible from the inclusive setting. These amendments should take into consideration the individual differences among students in inclusive classrooms where DHH students need more hearing and visual teaching assistance.

Human resources (their availability) were also found to a crucial factor if DHH students were to be actively involved in the educational scene (Avramidis, 2001; Eriks-Brophy

et al., 2006; Luckner & Muir, 2001). The table 4.6 (Appendix C) identifies the human resources available in a successful inclusive environment.

This list was extended to include other human resources contributing to successful inclusion of DHH students. However, it is likely that the findings are limited in their generalisability, as different or additional human support and barriers, or human related factor, will be identified in areas that have different historical, cultural, and educational backgrounds (Xie *et al.*, 2014; Eriks-Brophy *et al.*, 2006). Having defined what is meant by human resources as those who should be present in inclusive education, I will now discuss the factors related to human resources that could hinder or support the success of inclusion.

4.7.2 Societal Values and Attitudes

Values in education can be defined as the

“principles or beliefs held by individuals, either by themselves or by group membership, which are used as criteria for making judgements on preferred courses of action” (Lindsay, 2013: 2).

This definition acknowledges the fact that values lie behind the decisions that the educationalists involved in special education must make. Furthermore, decisions and attitudes involving inclusive education or any other programme will be affected by value judgements as much as by facts (Lindsay, 2013). Thus, the factual depiction of an issue can be heavily influenced by the values held by those involved.

Attitudes are often defined as variables with three individual psychological elements, the cognitive, the affective, and the behavioural. Furthermore, there may not be a direct link between values and behaviour, values can influence attitude, and attitude can affect behaviour (Maio & Olson, 1994). However, in developing inclusive education and looking at the factors that can influence it, both values and attitudes

(societal attitudes) play an essential role. Therefore, it is necessary to identify the societal attitudes and values as a focus of attention (as meanings or themes) in this study rather than purely the psychological concept of attitude (as a variable). As Turnbull *et al.* (1993) point out, SEN individuals often identify negative societal attitudes as the barrier they face most often. Therefore, this study is not concerned with attitudes that could be influenced by the cognitive element or by any physiological or individual aspect. Instead, it is concerned with attitudes that are influenced by societal values or that are inherent in the wider community or socio-cultural factors.

There are several theories describing how learning is influenced by psychological or individual factors (explained later in Section 5.2.1 and Table 5.1, Appendix D). This view suggests that reality is constructed individually, with little influence from the surrounding social context. According to these theories, attitude can be measured independently or as a quantitative variable. However, this study has adopted the Communities of Practice (CoP) theory by which to understand the phenomenon of inclusive education (more detailed forward in Section 5.3). This theory is classified as a socio-cultural theory that interprets reality as a social construction that is influenced by the surrounding experiences and circumstances. Therefore, attitude is understood here as societal attitudes that are influenced by societal values and the norms of the wider community rather than as individual psychological elements. Therefore, in this research, the interest lies in exploring whether attitudes and values work as themes or factors that can hinder or facilitate the success of inclusion, rather than measuring the attitude of the individual research participants. It also aims to show the influence of Saudi-Islamic socio-cultural values on attitudes towards inclusion.

This is exemplified in the work undertaken by Tan (2014) who found that societal values and attitudes were the main barrier to the inclusion of students with SEN in two

regular primary schools within the Chinese socio-cultural context. In these two schools, the barriers included negative attitudes, a competitive culture, and stereotyping of students with SEN. This might be also important in the Saudi context which combines views involving both stigma and acceptance of SEN as illustrated earlier.

4.7.3 Training

This section will discuss the concepts of professional development and the attitudes of educators towards inclusive education for DHH students, because professional training can influence attitudes. While the focus of this thesis is on barriers and support, professional training and societal attitudes can affect inclusion both independently (Abosi & Koay, 2008; Duchaine, Jolivette, & Fredrick, 2011; Bai & Martin, 2015; Georgeson & Campbell-Barr, 2015), and also jointly (Dupoux, Wolman & Estrada, 2005; Romi & Leyser, 2006; Avramidis & Kalyva, 2007). The following is a brief description starting with professional training, and then moving onto attitudes. Finally, a brief analysis is given of studies explaining the relationship between these two concepts.

Several lines of evidence suggest that professional development is one of the most critical factors influencing the success of inclusive education. Professional training is fundamental to improving the knowledge and skills of teachers and enabling them to present effective services to DHH students and their families (Bai & Martin, 2015). The literature on professional development for inclusive education varies in terms of its aims and research findings. Some of these studies address who the training is intended for, suggesting principals, teachers, and 'pre-service or in-service training teachers' (Bai & Martin, 2015; Furlonger *et al.*, 2010; Romi & Leyser, 2006). Others,

such as Duchaine *et al.*, (2011) and Rodrigues and Lima-Rodrigues (2011), describe the contents of the courses, which include special education needs, inclusive education, students with SEN' rights, and teaching strategies. Other authors interested in the training periods and the appropriate places, such as universities and training centres, are Johnson (2004), Hegarty, Pocklington, and Lucas (1983), Boglah (2002), and Booth (2000). These studies revealed considerable variety in the quality of the training, which depended on the categories of SEN considered (Dupoux *et al.*, 2005; Alothman, 2014). These variations provide a useful tool for understanding the types of professional training required.

However, as mentioned, the particular area of interest in the professional development varied, so it is necessary to consider the research literature. Bai and Martin (2015) assessed the need of school administrators for special education training to help them improve in their efforts to support inclusive education. These findings revealed that the participants recognised their need for this training to equip them to serve the students with SEN more successfully and to meet the requirements of inclusion. This finding was supported by Hadjidakou *et al.* (2008) who examined the perceptions of DHH students, parents, teachers, and headteachers regarding inclusion. This showed that in-service training for teachers was an essential facilitating resource.

These two examples show the vital role of in-service training for educators in schools. All school staff must be included in this solution to overcome the lack of information and knowledge that may hinder the success of SEN/DHH students in regular schools. It needs to be asked whether in-service training is sufficient to overcome the barriers to inclusive education, what the quality of the training is, how long a training is needed, who will give the training, and where. These questions indicate some of the factors that may present additional challenges to inclusive education.

Johnson (2004) investigated the preparation programmes for DHH students' teachers in the USA, and this investigation was based on the shift towards educating DHH students in inclusive schools. The results emphasised the need to restructure training programmes to educate DHH students' teachers to support inclusive education. These results are consistent with those of Rodrigues and Lima-Rodrigues (2011), who investigated teacher education with a view to the successful implementation of inclusive education in regular schools. They showed that considerable restructuring is needed in the curriculum for teacher education to enable them to fulfil their future roles in the academic achievement of students with SEN in inclusive education. The significance of preparation during teacher training appears convincing in terms of removing barriers and providing support to the success of inclusive education.

Another factor to be aware of is the comparatively high quality of the programmes presented in universities by faculty members with higher degrees relative to those presented by the trainers in teacher training centres. However, if sufficient emphasis is to be given to the needs of SEN and the content of inclusion courses, the training periods in both universities and teacher colleges may need to be with higher quality.

As far as professional training is concerned, the support/barriers to educating DHH students in mainstream schools cannot be discussed without reflecting on the attitudes of educators towards the inclusion of DHH students. Attitude is defined by Georgeson and Campbell-Barr (2015: 321) as

“elements of a system of beliefs about ideas, things and people in the world that have different components (emotional, motivational, intellectual and evaluative) and are differentially open to change”.

This definition has been broadened to embrace the three-dimensional model of attitudes. This model gives researchers the capacity to reveal the realities by

evaluating attitudes (Alothman, 2014). Successful inclusive education for SEN/DHH students in mainstream schools depends on the teachers' having positive attitudes and other associated cognitive skills (Mittler, 1992). Abosi and Koay (2008) discuss the developmental goals of students with SEN with implications for inclusive education. They mention five factors that pose barriers to inclusive education for students with SEN. The first and most critical barrier is negative attitudes resulting from traditional values, beliefs and culture. It might be assumed that the attitudes of educators towards DHH students are likely to influence the kind of provision that will be made for them in inclusive schools.

Having discussed professional development and societal attitudes as independent factors that have an impact on the success of inclusive education for DHH students, the next question to be addressed is how these concepts interact. Avramidis and Kalyva (2007) surveyed the attitudes of Greek teachers towards inclusion in schools where inclusion was applied. This study found that successful teachers of students with SEN had more professional training and experience and more positive attitudes than the teachers who were less successful. The importance of long-term professional training in shaping positive attitudes towards inclusive education was noted. The main recommendation was to employ considerably longer-term courses as support that can lead to attitudinal development and the design of truly inclusive education.

Similarly, Dupoux *et al.* (2005) compared the attitudes of teachers towards the inclusion of students with SEN in the United States and Haiti. Similar attitudes were noted on both sides, and there were no noteworthy variables correlated with attitudes other than years of experience and the professional training of teachers. Romi and Leyser (2006) also examined attitudes towards inclusion and their relationship to the effectiveness of pre-service training in teacher colleges: some of these colleges

offered courses on SEN and inclusion (in Europe), while others (in Arabic countries) did not. The results showed excellent support for the concept of inclusive education for students with SEN in the colleges that offered SEN and inclusive education courses, but less support for inclusive education in the Arabic countries that did not.

This combination of findings provides support for the premise that there is a positive relationship between professional training and attitude. Moreover, the pre-service courses in teacher colleges and universities appear to offer stronger support for the principles of inclusive education than short post-graduation training programmes (in-service training). Romi and Leyser's (2006) findings suggest that there is a lack of courses involving SEN and inclusive education in the preparation programmes for regular classroom teachers in Arabic teacher colleges and universities, including Saudi Arabia. This serves as a justification for this study including the perceptions of specialist teachers in DHH education amongst others who may lack the relevant information having attended pre-service courses at teachers' colleges in the Saudi context. Exploring the viewpoints of specialist teachers who have attended specialist preparation programmes in SEN and inclusion may possibly lead to a better understanding of the concept of inclusive education and the barriers/support to its success. The vast majority of regular classroom teachers, principals of schools, administrators, and even the parents of DHH students in the Saudi context, are likely to lack a proper understanding of the basic concepts of inclusion and often exhibit a negative attitude (Allothman, 2014; Alshahrani, 2014) compared with specialist teachers who have had appropriate academic preparation in DHH education.

4.7.4 Interaction and Communication with DHH Students

It is necessary to clarify exactly what is meant by the term interaction and what type of relationship involves interaction and communication. In order to identify the interactions of DHH students with their hearing peers and educators in mainstream schools, it will first be necessary to look for a specific definition that relates to DHH inclusive education. The term ‘interaction’ is used by Xie *et al.* (2014: 424) to refer to “*any social exchange, any nonlinguistic or linguistic communication, and social play*”. This definition is useful because it has been used by researchers looking at the interaction of DHH students in inclusive practices, and it considers the relationship between interaction and communication. Communication is likely to be a part and one of the main features of interaction. For DHH students in an inclusive setting and for learning as conceptualised in CoP theory (see Section 5.3), communication is essential and critical if they are to engage with others, preserve their interactions, and therefore build friendships with non-DHH students in inclusive schools (Xie, Potměšil, & Peters, 2014). This could apply to other features of interaction, such as ‘engaging’ and ‘preserving’, which may appear when discussing associated studies in this section.

Having defined what is meant by interaction, it is necessary to move on to discuss the importance of interaction as a critical factor in the process of including DHH students in a mainstream schools’ context. The majority of studies that investigate the issue of DHH students in an inclusive setting show the vital role played by interaction for DHH students (see Brown *et al.*, 2008; Antia & Kreimeyer, 2003; Xie *et al.*, 2014). Consideration of the academic literature on interaction with DHH students, reveals the emergence of several sub-themes, such as *communication, starting/engaging in*

interaction, and *keeping/conserving this interaction*. These elements and their results are described in the next few paragraphs.

In regard to communication, several studies (e.g. Bobzien *et al.*, 2013; Doherty 2012; Kelman & Branco, 2009; Punch & Hyde, 2011; Toe & Paatsch, 2010) have shown that communication of DHH students in inclusive schools can play a role as either a barrier or a support to their inclusion. Several definitions of DHH communication and communication modes have been proposed and discussed in the earlier chapter on the Deafness (Chapter Three). Nevertheless, the term communication is used here to refer to all speaking or signing ways that DHH students use to interact socially with others.

Various studies identify *communication* in an inclusive setting as a main factor that could hinder or facilitate inclusive education for DHH students. For example, Hadjikakou *et al.* (2008) found that the communicative skills of DHH students were positively related to their academic and social inclusion. Additionally, Bobzien *et al.* (2013) compared the social communicative skills of Deaf children attending oral communication sessions with those of their hearing peers. They observed limited social-communicative interactions between these groups in the inclusive classroom, leading to the exclusion of the Deaf from social-communicative interactions. The Deaf children initiated less verbal communication and were likely to have subtle communication differences that affected relationships with their hearing peers, and consequently, they were excluded socially.

One of the issues that emerged from these findings was that a weakness/strength of communication with DHH students in an inclusive setting might stand as a

barrier/support to their success. However, with a small sample size and very young children, caution must be applied, as the findings may not be generalisable.

In the same vein, Doherty (2012a) compared the inclusion experiences of Deaf students in Northern Ireland and Sweden. His findings revealed that the Swedish experience was more positive than the Northern Ireland experience. The most likely cause of this was the reinforcement of the Deaf culture in Sweden, where teachers and pupils used Swedish sign language for social interactions in inclusive classes. In Brazil, Kelman and Branco (2009) observed the use of meta-communication strategies with the Deaf in inclusive classes. 'Meta-communication strategies' refer to changing the conditions for the way in which communication happens with DHH students. The study found that promoting interactions between the Deaf students and their hearing peers through other activities contributed to the Deaf students' inclusion. Similar findings from studies focusing on DHH communication are reported by Punch and Hyde (2011) and Toe and Paatsch (2010).

Overall, there is no general agreement in the empirical literature regarding which communication approaches facilitate or hinder inclusion. This reveals the need for further investigation from the perspective of DHH students and specialists practising both DHH communication and education.

Concerning the other elements, further significant aspects of interaction with DHH students in inclusive schools are *starting/engaging* in interaction and *keeping/maintaining* this interaction with hearing peers. Powell *et al.* (2014) examined DHH students' views regarding their support needs, learning, and social participation experiences, and the challenges they faced in the post-secondary context. They found that access to communication was essential for their learning and participation in

inclusive settings. Deluzio and Girolametto (2011) compared the initiation and response skills of Deaf children with those of their hearing peers in inclusive schools. Although there were no significant variations in the starting and answering skills, the hearing peers had fewer initiation interactions with the Deaf children and the Deaf children's initiations were ignored more often than those of their hearing peers. Martin *et al.* (2011) added that Deaf children have initiated interaction better in situations where they faced only one hearing peer rather than in interactions with two or more hearing peers. The findings from Brown *et al.*'s (2008) study showed that DHH children created less visual communication initiative compared with their hearing peers in interactions between them. They added that the DHH students were often more distracted and had less focused attention.

These three studies may help to understand the influence of these two aspects, the initiation and maintenance of interaction, and how these boosts or limits the success of DHH students in mainstream schools. However, a note of caution is due here as the findings of Brown *et al.*'s (2008) study contradicts with the findings of Deluzio and Girolametto (2011) and Martin *et al.* (2011) where they shows different findings about who had fewer initiative interactions, DHH students or hearing peers. It could be suggested that the type of communication (whether spoken or signed) could affect other aspects of interaction, such as starting and maintaining interactions. This is, therefore, an essential issue when exploring the effect of using sign language or other spoken languages on the success of inclusive education for Deaf students.

A meaningful analysis and discussion on the subject of interaction with DHH students in the inclusive setting was presented by Xie *et al.* (2014). Their study supports the above studies and they found that DHH students face obstacles, particularly in communication, in initiating/entering, and in maintaining their interactions with hearing

peers in mainstream schools. They added a crucial factor to the support required for successful social interaction of DHH students with their hearing peers which involves co-enrollment, engagements, participation, and social skills training as factors affecting their success in interaction and inclusion. The study by Xie *et al.* (2014) is comprehensive in that it analyses and discusses the findings of 21 related journal papers that focus on inclusive education for DHH students. Some difficulties, possible interventions, and support for social interaction are raised.

The current study includes finding out how DHH students and specialists view or comprehend the particular subject of interaction in inclusive schools, and what are the most critical factors that hinder or facilitate this. Moreover, it is framed by socio-cultural view of the Communities of Practice theory (Section 5.3), where the interaction between DHH students and their hearing peers is seen as essential (further consideration about the interactions of DHH students can be found in Chapter 3 & 5).

So far, this section has focused on international studies that discuss the main factors that hinder or support the success of DHH students in inclusive practices. A summary of the main findings of two studies in the Saudi context is provided in the following section.

Alshahrani (2014) carried out a study aimed at exploring Saudi educators' (administrators' & teachers') perceptions and attitudes towards DHH inclusion in the second biggest city (Jeddah). One of the objectives was to investigate the barriers and the changes required. The findings revealed that there was inadequate professional training. Moreover, there was an overreliance on individual donations rather than on the local authority to fund and support teaching aids. Additionally, there was an

absence of effective actions regarding student referral and teacher transfer from general to DHH education, and there was a need for more rigorous assessment of the national curriculum for mainstream schools to make it more DHH-friendly. These findings resonate with those of Alothman (2014), who reinforced aspects such as inadequate facilities and resources, absence of training, and lack of collaboration between school staff, and between staff and the parents of Deaf students. These were all seen as additional factors that influence the success of inclusive education for Deaf students. He added that these barriers could not be tackled without there being collaboration between school staff, parents, the Local Educational Authority (LEA), the Ministry of Education (MoE) and the school environment.

These two studies have contributed to understanding the factors relevant to the Saudi context. Mainly, they highlight the administrative responsibility for providing the support required and they clarify who is responsible for providing this support in overcoming barriers to the success of inclusion for DHH, such as the LEA, MoE, or the Directorate General of Special Education. However, questions do arise from the results of Alothman (2014) and Alshahrani (2014), as their findings reveal that principals, administrators, parents, and some teachers of mainstream schools lack the knowledge and understanding of inclusive education that are necessary for the effective education of DHH students in the Saudi context. An additional finding is that a clear majority of participants adopted the medical model for disability (see Chapter 5, Section 5.5.1) and held negative attitudes toward inclusion of DHH students. It could be inferred that principals, administrators, teachers, parents and all non-specialists in Saudi inclusive schools were likely lacking the knowledge they need. This could be because their pre-service programmes in teacher colleges/universities do not include courses that cover SEN, inclusive education (Romi & Leyser, 2006), the

characteristics of SEN, and the rights of individuals with disabilities. This raises the question whether the right participants were interviewed as they lacked the necessary background knowledge and experience. These two studies could have been more profound and far more convincing if the researchers had included participants who had considerably more experience and knowledge of the perspectives of DHH students and specialist teachers who have experienced and practised DHH education and mainstreaming or have taken pre-service courses on SEN/DHH and inclusion. It is among these people that positive attitudes, knowledge, experience, and social and interactional understanding of this phenomenon are likely to exist (Romi & Leyser, 2006; Eriks-Brophy *et al.*, 2006; Alothman, 2014; Xie *et al.*, 2014).

4.8 The Scope of Previous Research and the Place of the Current Study

This chapter has provided a summary of the literature relating to provision and inclusive education for DHH students, the barriers faced, and the support required. Most of these studies examining the factors that affect the success of inclusion rely too heavily on quantitative data collection, with the result that these studies remain narrow in focus. Furthermore, findings of previous qualitative studies are limited in their generalisability; studies such as Eriks-Brophy *et al.* (2006) or Luckner and Muir (2001) had investigated inclusive education away from Saudi Arabia and the Islamic Middle Eastern context. These two studies have a different historical, cultural, and educational background and a different system of support for children with SEN. Care should be taken when transferring the concepts of inclusive education as developed in the West to the Arabic and Islamic socio-cultural contexts, where segregation by gender is one of the most significant traditions. In addition, the nature of support and barriers for DHH students may also be different in the Saudi context.

Although the studies of Alothman (2014) and Alshahrani (2014) investigated the attitude toward inclusive education for Deaf students and other influencing factors, these studies involved participants who were not specialists in DHH education and did not hear the voice of the DHH students in the Saudi context. The findings of Alothman and Alshahrani were therefore restricted to non-specialist responses (Alothman, 2014; Alshahrani, 2014). The voice of DHH students in Saudi Arabia regarding inclusive education was not considered, nor even the voices of the specialist teachers in DHH education. The current research aims to listen to the voices of specialist teachers (local supervisors, communication disorder teachers and special DHH classroom teachers) and DHH students about provision for DHH students in mainstream schools in Saudi Arabia. The aim is to document the current experience of DHH students and specialists in mainstream schools, focussing on their perceptions regarding the existing barriers and the support required for the success of inclusive education for DHH students in Saudi Arabia.

4.9 Chapter Summary and Research Aim

This chapter began by describing the historical background of inclusive education and arguing that it was developed by gradual improvement in disabled individuals' rights following decades of segregation. It went on to suggest that inclusion emerged internationally after the Salamanca Agreement (1994), although there were some previous indicators, attempts, effects or levers within some Western countries. There remains confusion regarding an international or a uniform definition of inclusive education. This could be attributed to the differences in socio-cultural factors between countries, which should be addressed carefully in defining any social phenomena. Several socio-cultural issues have to be considered in understanding the inclusion. Saudi values are derived fundamentally from Islamic principles, which do not

contradict international rationale of inclusion although there is pressure from some cultural differences in the Saudi context, such as segregation by gender. Inclusion and integration are different in theory and practice and this argues against the practice of using those concepts interchangeably. The literature indicates that there are several factors could affect the success of inclusion for DHH students, but qualitative studies carried out in the Saudi context have tended to ignore the voice of DHH students and specialists regarding their experience and inclusive education.

Based on this review of the literature review, the aim of this study is to improve the education and provision for DHH students in Saudi context and explore how to work towards successful inclusive education for DHH students by the following derived objectives:

1. To document the experience of DHH students and specialist teachers in mainstream schools in Saudi Arabia.
2. To examine the concept of inclusive education and how it relates to the DHH students and specialist teachers.
3. To identify dimensions that support successful inclusive education of DHH students and to highlight the barriers to inclusion.
4. To develop a set of recommendations for Saudi policy that support the functional inclusion of DHH students.

Chapter Five: Developing a Theoretical Framework

5.1 Introduction

If we want to create an inclusive society, we need to rethink and learn more about each other. Educationalists have suggested different theories for rethinking, understanding, and optimising the processes of learning and education. In this section, I focus on learning as understood in the broader field of education, as studies on inclusive education are mostly focused on understanding disabilities rather than on how learning occurs. In theories of learning, different classifications are suggested through which to understand learning in education. These views are generally based on a particular school of thought followed by the investigators.

5.2 Learning Theories

Learning theories can be broadly classified as follows: first, individually-focused theories that emphasise the individual and are concerned with the individual's behaviours in order to understand their learning; second, social-cultural theories that emphasise shared learning. This differentiation in interpreting learning can also be described as acquisition of skills versus learning through participation (Sfard, 1998). In the next section, I will discuss these two views and justify the theory adopted for this study.

5.2.1 Individual-Focused Theories

Theories emphasising the individual are normally used to underpin formal academic learning. In the understanding of these views, learning is mostly affected by behavioural and psychological factors (Hager, 2011). In addition, individual-focused theories include varied principles that focus on the individual's acquiring, maintaining, and recalling of knowledge (Hager & Hodkinson, 2009). Theories such as

behaviourism, cognitivism, and constructivism are well-known examples of individual-focused theories of learning (see Table 5.1, Appendix D).

However, individual-focused theories are subject to criticism of their understanding of learning. First, behaviourists such as Skinner (1953) expect all learners to learn through reaction to changes in the environment in the same way and, accordingly, to acquire the same skills and knowledge regardless of individual differences (Hager, 2011). Second, cognitivist theorists (such as Anderson, 1993) appear to be in agreement that learning is a process of 'acquisition' through the individual's development of particular cognitive structures. There is a danger that this use could objectify skills and knowledge by implying that they are objects that can be acquired, possessed, and transferred. This means that the learned expertise and knowledge are separate from the individual and their context (Hager & Hodgkinson, 2009). Such individual-focused theories are thus often based on assumptions from the positivist paradigm, and therefore differ from the interpretive paradigm adopted in this research. Third, this view isolates learning from the context in which it occurs; thus, the influences of social, cultural, and organisational factors in the place of learning are ignored (Hager, 2011). Constructivists, such as Piaget (1954), however, take experience into account, which the individual uses to construct new understanding based on this experience.

Individual-focused theories express and focus on behavioural and psychological disciplines. The limitations of individually-focused theories have stimulated other educationalists and theorists to develop broader theories of learning. These theories examine the social-contextual influences on learning in addition to the individual influences. Social-contextual theories will be described in the next section.

5.2.2 Social-Cultural Theories

As mentioned above, the critique of individually-focused theories led to the emergence of a different way of understanding learning; this view included the individual influences but extended beyond them to emphasise the social context surrounding the individuals. Social-cultural theories are made up of principles that focus on the context of the individual's mastery (instead of acquisition) of the skills and knowledge needed, and on a broader understanding of how learning occurs. These social-cultural theories understand learning as a combined process influenced by a range of organisational, social, and cultural issues (Hager, 2011; Morris & Blaney, 2013). Theories ascribing to this view conceive learning as a continuous process that encompasses the social-cultural contributions of all learners (Lee *et al.*, 2004; Hager, 2011). Use of the term 'acquisition' is excluded and instead these theories use terms such as mastery, reconstruction, transformation, and participation (Hager & Hodkinson, 2009). The separation of the learning process from the context is also rejected by social-cultural theorists who see learning as shaped by the surrounding society but developed by the individual (Hager, 2011).

Social-cultural theories are generally underpinned by assumptions consistent with the interpretive paradigm that will be adopted in this research. For example, Socio-cultural theories originating in the work of Lev Vygotsky (Vygotsky, 1980), and the Communities of Practice theory (CoP), developed by Jean Lave and Etienne Wenger, are widely used examples of the social-cultural view (Lave and Wenger, 1991).

In his Socio-Cultural Theory, Vygotsky provides an account of the role of society and culture on learning. This theory holds that learning is constructed socially through interaction between an individual's existing knowledge and social interaction. To put it

simply, the individual's social experience precedes personal cognitive development, leading to learning. An essential point is that knowledge and skills grow out of engagement in society and culture, and not vice versa.

Socio-Cultural theory and CoP theory share the principles of the social-cultural view in understanding learning. They both view learning as growth that occurs through interaction within the social context and with social actors, rather than merely as an individual cognitive input-output process. Knowledge does not develop in segregation, so we cannot understand individual development without an understanding of the cultural context that surrounds it. Both of these theories hold that knowledge is constructed socially and then individually.

It can be concluded that the social-cultural theorists place their focus on social, cultural, and organisational issues, although they encompass the influence and role of the individual in different ways (Billett, 2006). In the current study, the social-cultural view of learning through a CoP is adopted, to explore the interplay between individual participation and collective understandings of what matters and how this might be achieved (Wenger, 2010, p.180). CoP includes in its view multiple communities or contexts as sources of learning. The advantage it offers over the Socio-Cultural Theory of Vygotsky is that, it tells us we have one culture that has diversified contexts or communities of practice within this culture, which can imply the existence of different important socio-cultural factors. For this study, for example, at least four contexts were discussed in earlier chapters such as the Saudi SEN context (Chapter 2), Deafness context (including Deaf culture) (Chapter 3), inclusive education context (Chapter 4), and the Saudi Islamic context (Section 4.3). In the next section, I will discuss the particular approach of CoP as practical, better suited, and more useful to the current study and how it will be adopted in the present study.

5.3 Communities of Practice - The Framework for the Current Study

In this section, I will outline the Communities of Practice theory to position the theoretical perspective of the present study ontologically. Communities of Practice (CoP) theory, developed by Lave and Wenger (1991) understands learning as a continuing and extensive process, which involves social relations and the cooperative participation of the learner as the source of learning (Chaiklin & Lave, 1996; Wenger, 1998). CoP was defined by Wenger (1998: 1) as *“groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly”*. This could be extended to the idea that, in a CoP, learning involves learning the culture, identities, and values of the community rather than skills and knowledge alone. People might, however, vary in their commitment to or success in improving practice within a CoP: *“a practice can have a life of its own”* (Wenger, 2010: 180).

This approach is also valuable since inclusive pedagogy requires us to rethink the way we interact in our communities. For the current study, the most important aspect was identifying the barriers to developing an inclusive community, and what support is required to eliminate these obstacles.

Communities of practice can include all communities that have a particular function that is practising the pursuit of their enterprise, together with the social relations that accompany that pursuit (Wenger, 1998). The members of communities of practice come together to engage in shared activities; this engagement leads to their shared learning (Lave & Wenger, 1991). Members of a community of practice share a mutual interest in a particular domain. These people interact frequently and learn from each other how to achieve best practice in their area of interest. It is, therefore, a collective

learning practice that includes both the engagement with a project and the accompanying social relations. This practice leads to the building of a community with common practices, which is called a community of practice.

Wenger (1998) points out that a shared domain, community, and practice characterise a group who make up a CoP. This group practises the pursuit of their enterprise while developing social connections within their community. Over time, they will have a shared wealth, which will include knowledge, experiences, and ways of tackling crises. Within the community, they are all practitioners.

The implications of these ideas reveal that, in our every-day lives, we may have various communities of practice, and all of us belong to communities of practice (Wenger, 1998). In the school setting, the learners interact with each other and with the external world to establish their relationships, and in this way, through the practices of the community, learning occurs (Wenger, 1998).

Historically, two concepts shaped the emergence of CoP theory. One is the legitimacy of peripheral participation, and the other is situated learning. Lave and Wenger's work in developing these concepts at the beginning of the nineties led later to their formulating the theory of CoP. Regarding legitimate peripheral participation, Lave and Wenger (1991) pointed out that when newcomers join communities, initially they learn at the periphery. Subsequently, they become more involved in the main processes of the community and gradually move from legitimate peripheral participation to full participation. Therefore, when researchers are investigating how learning happens

“rather than asking what kind of cognitive processes and conceptual structures are involved, they ask what kinds of social engagements provide the proper context for learning to take place” (Lave and Wenger, 1991: 37).

This suggests that, as an alternative to looking at individual factors, such as those associated with impairments, we should instead be asking about the obstacles and the support related to the surrounding environment in our places of education if we are to develop successful learning and inclusion. This argument is convincing as, instead of focussing on learning acquisition process as cognitive approaches do, it is more important to look at how appropriate is the setting in which learning can take place, for example, by asking about the types of social engagement. In short, the emphasis needs to be on what learners need in order to participate. This would allow learning to be practised rather than acquired (Wenger, 1998).

The other concept is situated learning, which means that knowledge is fundamentally 'situated' and is associated with the situations in which it is constructed (Rogoff & Lave, 1984). This concept developed from paying attention to understanding learning in its context. In this way, a shift from the study of human cognition to the study of social-contextual situations was established (Tsai *et al.*, 2005). Situated learning is extensive in its scope because it is based on the claim that learning (new) knowledge is located in action in the community (Wenger, 1998).

It could be suggested then that learning may be situated within communities that practise the knowledge and skills required to produce people who are actively engaged in their community. However, it is *"not just doing in and of itself. It is doing in a historical and social context that gives structure and meaning to what we do"* (Wenger, 1998: 47). More recently, attention has been focused on interaction, discourse, 'negotiation of meaning', and 'reification' as practices and sources of informal learning in the CoP. In their analysis of CoP, Barton and Tusting (2005) identify interaction as the 'nursery for change', where people are involved in the continuous production of discourse and 'negotiation of meaning' as they engage in

activities, and this is a productive process for change and learning. They also conceptualise the negotiation of meaning as the convergence of two processes, participation and reification. 'Reification' is the process of "*making into things....[where] we project our meaning into the world, and then we perceive them as existing in the world, as having a reality of their own*" (Wenger, 1998: 58). Participation in meaning-making always implies reification, and vice versa, because individuals in a CoP rely on mutual recognition and projection (Barton & Tusting, 2005). An interplay then takes place between participants during informal discourse, and 'negotiation of meaning' arises from mutual engagement, joint enterprise, and a shared repertoire in the CoP.

The arguments outlined in this section suggests that a study of social practice relies on analysis of social interaction, discourse, and negotiation of meaning in continuous communication. This may help to understand how broader social change can happen such as inclusive education. Moreover, learning is also understood as a situated action where new learners or newcomers will master the knowledge and skills required to become part of the CoP, and where they will progress until they achieve full participation in the social-contextual practice (Lave & Wenger, 1991).

All participants, despite their different needs, could be called 'learners' rather than using labels associated with impairment, disability, or even the level of need, such as 'disabled', 'Deaf', 'hard of hearing', or even 'SEN'. Alternatively, their classification could vary based on their level of practice, such as 'newcomer', 'learner', or 'full participant'.

Therefore, the ontology of the project's theoretical formwork situates learning in the relationship between the individual and their social context, not in the individual's head

or in another independent place. The social context and the individual define each other in this relationship of participation—which is participation for learning rather than for acquisition (Sfard, 1998).

To sum up, learning can be theorised in several ways. The behavioural disciplines are associated with theories that focus on the individual. They pay more attention to the individual's ability to learn, and they view the process of learning as skill and knowledge acquisition with little or no thought for the social-cultural influence on learning. In contrast, social-cultural theorists place their focus on social, cultural, and organisational issues, although they also encompass the influence and the role of the individual (Billett, 2006). Nevertheless, the concept of the acquisition of learning is rejected by social-cultural theories, and in its place learning is developed through co-participation between learners within the social context. In the current study, the social-cultural view of learning through a CoP is adopted, because this combines the role of the individual and the influence of the social context; this appears to offer a useful understanding of learning.

A further implication of CoP theory is consistent with the ontological and epistemological assumptions of the current study, which emanate from the Vygotskian insight that underpins numerous social-contextual theories, namely:

“Every function in the child’s cultural development appears twice: first, on the social level, and later on the individual level; first between two people (interpsychological), and then inside the child (intrapsychological)” (Vygotsky, 1980: 57).

Reality is constructed in the social context and is then incorporated by individuals into their own understanding. DHH students, their parents and specialist teachers are a community practising education in mainstream schools. They have lengthy social

experience of being in this community. The realities of this community will vary, based on different factors influencing their experiences. This supports the adoption of the interpretive paradigm and a qualitative methodology to generate knowledge as it is constructed by co-participation in the community. Therefore, this study views DHH students, their parents, and specialist teachers in mainstream schools for DHH students as a community of practice that constructs knowledge about its experiences and successful inclusive education. Their knowledge, perceptions, understanding, and experiences in mainstream schools are the aim of the investigation and will be explored qualitatively by the current study. This epistemological assumption recognises the influence of (mine) the researcher, who is (I) also a member of the community of practice for the education of DHH students and who (I) has long experience of this community. This influence will be expressed in the generation, interpretation, and analysis of the data.

The participants who took part in this research belong to specific communities of practice, all of which are directly involved in practising education in mainstream schools for DHH students. Communities of practice can be considered as groups that have constant discourse in the workplace and provide opportunities for their members to communicate, whether through conversation, or not (Lave & Wenger, 1991). Four separate groups of participants or communities of practice took part in the research. Each group included specialist teachers, DHH students, and their parents and came from one of four mainstream boys' primary schools in Riyadh, Saudi Arabia. The data for the study were generated from interviews with these groups.

5.4 Ainscow's Model (2005)

Theories or models can be used to develop a theoretical framework. The model shows how to put the theory into practice. One of the models that put the CoP theory to practice in understanding and defining inclusive education systems is Ainscow's Model (2005). This model emerged as a theoretical framework to mobilise the assumptions and principles of CoP theory in understanding inclusion for SEN/DHH students.

“Within schools in our study we saw how hours of meetings, shared experiences and informal discussions over hurriedly taken lunches, also involved the development of particular meanings of frequently used phrases such as ‘raising standards’ and ‘inclusion’” (Ainscow, 2005a: 6).

In his attempt to understand inclusive education, Ainscow (2005a) provided four essential features of inclusion that together provide a definition that can be used to guide policy development in any school system. These different aspects of inclusion together define how inclusion can be perceived and developed. The four elements are shown and discussed in the table below:

Table 5. 1 The elements of understanding and defining inclusive education

<i>‘Inclusion is a process’</i>	It is the continuing intention to increase in diversity and to learn how to live and learn from each other in this diversity, which is the way through which we learn to collaborate and accept each other.
<i>‘Inclusion is concerned with the identification and removal of barriers’</i>	It is removing any barriers to learning together with constant evaluation of policies and practices to identify any weaknesses resulting in children's inability to increase their opportunities for learning. It involves their rights and provides equality of opportunity for all students by confirming that nothing will hinder their learning.
<i>‘Inclusion is about the presence, participation and achievement of all students’</i>	It concerns the places where students get their education, and concerns the quality of the experience they gain through their participation and ensures that all students with SEN obtain significant achievement as full

	participants through their inclusive presence in the classroom.
<i>'Inclusion involves particular emphasis on those groups of learners who may be at risk of marginalisation, exclusion or underachievement'</i>	It is an ethical issue to accept responsibility for wisely monitoring all students with SEN as being vulnerable; therefore, guidance is needed to confirm the presence, participation, and achievement of students with SEN in the school system as a whole.

Adapted from: (Ainscow 2005a: 9)

Ainscow offers different concepts for inclusion, which possibly determine how inclusive education is understood or perceived across different cultures (Doherty, 2012a). The above four key elements can lead to a comprehensive understanding of the features of inclusion in any given society (Ainscow, 2005a). Moreover, Ainscow adds that these elements may encourage schools to achieve successful inclusive education once they are well understood by principals, social and political leaders, media journalists, and the religious leaders within the local community. Then, CoP theory and Ainscow's Model (2005) could be a motivation to improve education and research in any given social-culture context.

Having recognised the issue, it was essential to look at any relevant literature that could help to divide the main research question into specific objectives. A scholarly work by Ainscow (2005a) had a great influence on the formation of secondary research questions, and provided a useful model for participants' experiences and suggesting how to support the development of more inclusive educational experiences. Ainscow (2005a) made recommendations about how to study and develop a successful inclusive education programme across different cultures, and at any stage of inclusion. He made his recommendations *"to those in any education system intending to review their own working"* (Ainscow, 2005a: 9). The first recommendation is to examine

current experience and knowledge and look at differences as opportunities for learning. The second is to explore any barriers that may hinder participation in inclusion. The next is to explore and use current facilitators to support the learning process. The final recommendation is to use a style of language and create a situation that encourage change (Ainscow, 2005b). Based on these recommendations, the sub-research questions were developed (see Section 5.7).

Just as it is essential to understand learning theoretically (as discussed above within the context of learning theories), it is also crucial to understand disability when studying inclusive education for DHH students. This study could add to the understanding of disabilities in relation to the phenomenon of inclusive education as this study concerns the experiences of DHH students in an inclusive environment. Therefore, disability models will provide a complementary theoretical framework for understanding the experiences of disabled students. These models are also linked, theoretically, with the type of programme for the provision of DHH students as it is conceived. Disability models will be discussed in the next section.

5.5 Disability Models

In order to understand the different perspectives on DHH and inclusive education, it is necessary to trace the evolution of context views on disability via the three disability models, the medical, social, and interactional. These three different models provide a helpful way of understanding disabilities in the context of inclusive education. Theoretically, each can be associated with a particular form of provision provided for DHH students, such as segregation, integration, or inclusion. The emergence of those models is considered with and discussed in the historical background of provision for students with SEN (see Section 4.1). These three models can contribute to an analysis

of the experience of DHH students in mainstream schools and the understanding by specialist teachers of the phrase ‘inclusive education’ in Saudi Arabia and how best to provide for them.

5.5.1 The Medical and Social Models

The development of the general understanding and interpretation of disability can be traced via the medical and social models. Historically, the social model was proposed as an alternative to the medical model (Campbell and Oliver, 2013). These models associate disability and SEN, and our reactions to them, to different values and actions in society that have resulted in marginalisation. The following table provides a brief overview of the thinking reflected in the medical and social models.

Table 5. 2 The Medical and Social Models’ Thinking

Medical Model	Social Model
Child is faulty	Child is valued
Diagnosis	Strengths and needs defined by self and others
Labelling	Identify barriers and develop solutions
Impairment becomes focus of attention	Outcome-based programme designed
Assessment, monitoring, programmes of therapy imposed	Resources are made available to ordinary services
Segregation and alternative services	Training for parents and professionals
Ordinary needs put on hold	Relationships nurtured
Re-entry if normal enough or else permanent exclusion	Diversity welcomed, child is included
Society remains unchanged	Society evolves

Source: (Richard Rieser 2001: 139)

It is evident that the medical model places an excessive load on the students with SEN, making them responsible for their success or failure in inclusive schools. The emergence of this model is, likely, associated with and discussed in the historical background of segregation provision for students with SEN in 'industrial era' (more detailed in Section 4.2.1). This model sees DHH students as medically impaired, and the barriers located within themselves (Campbell & Oliver, 2013). This model may identify internal and individual barriers to the success of inclusive education, including disabilities, impairments, or hearing loss (Eriks-Brophy *et al.*, 2006). The degree of disability or hearing loss is based on the level of the deviation from the social standard; this perspective views society as inalterable, and it is the responsibility of the disabled individual to become well-matched with their non-disabled peers (Rieser & Mason, 1992).

The social model, on the other hand, considers the potential influences of the educational and societal contexts on the achievements of students with SEN in inclusive education (Oliver, 1996). The emergence of this model is, likely, associated with and discussed in the historical background of socialisation and integration provision for students with SEN during the 1950s and 1960s when the psychologists gradually took power away from the medical professionals (more detailed in Section 4.2.2). Based on this model, the external barriers to the students with SEN are viewed as the essential considerations in achieving inclusion. These external obstacles include the human attitudes of their educators and peers and their interactions with DHH students (Eriks-Brophy *et al.*, 2006). The social model assumes that the schools erect the barriers within the teaching process rather than seeing the DHH students as having learning barriers (Cline & Frederickson, 2009). Therefore, these barriers within the educational and societal contexts must be removed to meet the needs of the

SEN/DHH student rather than trying to change the child to fit the pedagogical and societal context. Thus, all community members have to be flexible, specifically in their beliefs, understanding, and attitudes toward DHH students, and they need to improve their educational system as a whole to cover the needs of all (potential) pupils and thereby develop successful inclusive education (Bryant, Smith, & Bryant, 2008).

Even though the social model emphasises schools making progress towards the inclusion of SEN/DHH students, some criticisms have been raised. For example, the social model ignores the importance of the child's individual characteristics and their ability to function in the inclusive educational setting (Barnes, 1996). This can contribute to explanations of why SEN/DHH students may or may not achieve (Cline & Frederickson, 2009). This limitation led to the emergence of the interactional model, which will be discussed in the next section.

5.5.2 The Interactional Model

The interactional model includes both the medical and social models in its conceptualising of disability (Shakespeare, 2014). The emergence of this model is, likely, associated with and discussed in the historical background of the emergence of inclusive education provision for students with SEN starting roughly on the late of 1970s when the SEN individuals gradually took power away from the psychologists (more detailed in Section 4.2.3).

This model involves a complex interaction between the child's needs and strengths, and aspects of the social and physical environment that include the educational services provided, and result in an understanding of the level of needs and of the support required (Cline & Frederickson, 2009). However, the experiences of disability and impairment need to be included as a contribution towards creating a confident

individual and a collective identity rather than seen as barriers (Shakespeare, 2014). Disability, as mentioned in the interactional model, is difference but can be seen in a beneficial way rather than the way it is seen in the medical and social models (Swain and French, 2000). It is useful for understanding the level of needs and services required in places of education. Disability is likely mentioned not to encourage segregation or to highlight the impairment as a significant difference but is understood as an ordinary difference which usefully contributes to the heterogeneity of the educational setting. Heterogeneity, or non-homogeneity, is an essential feature of inclusive educational environments (Shyman, 2015). This model places the responsibility on the educational environment and on the interaction between the properties of the environment and the pupils in these places to hinder or support the learning process (Cline & Frederickson, 2009).

Based on the conceptualisation of CoP outlined in the chapter, the interactional model can be aligned with social- cultural theories, such as the CoP theory, which considers both the educational environment and individual conditions when addressing the impact on learning. These philosophical views do not focus only on the individual but go beyond to consider the social life of the people to provide a better understanding of the phenomenon.

The interactional model has been supported by some researchers, including Kaul (1992) who stated that 'to understand the special educational needs of children with disabilities we need to look at them as children with personal identities in a particular social milieu' (Cline & Frederickson, 2009). Therefore, the students' capabilities for learning and the social and educational environment are not separated from each other in the interactional model (Keogh *et al.*, 1997).

Therefore, this thesis will adopt the thinking of the interactional model, moving beyond the dispute between the medical and social models of disability. This model considers both aspects and as such aims to eliminate obstacles in society that may limit the inclusion of DHH students. The experiences of SEN/DHH students with difficulties or impairments are a necessary contribution. These experiences can provide benefits in enhancing heterogeneity, non-homogeneity and diversity (Georgeson *et al.*, 2014; Shakespeare, 2014).

These three models have been associated with the positioning of SEN/DHH students in the research literature (see Appendix E). An understanding of the disability models is therefore essential in studying inclusive education for SEN/DHH students, providing a comprehensive view for understanding the role of disabilities in how they experience inclusive education. Disability models appear to be linked with the educational provision conceived for DHH students, whether it is segregation, integration, or inclusion. For instance, full inclusive education in society is related to a high degree of involvement by DHH students. These three models could contribute to developing an understanding of DHH students and how best to provide for them. It could also contribute to the analysis of the research findings.

5.6 Chapter Summary

Having considered learning theories and their assumptions about learning, CoP theory, Ainscow's Model of Inclusion (2005a), and the interactional model of disability will inform the current study and provide the theoretical framework for interpreting and analysing the data. They could be as a motivation to improve education and research in the Saudi context as this study aimed to provide a set of recommendations for the Saudi policy. These perspectives will also be integrated into the research methodology

for this investigation. I believe them to be the most relevant views because they provide a theoretical framework that accommodates both the inter-individual and intra-individual dimensions. Moreover, CoP looks to co-participation as a way to master knowledge and skills and fits well with my aim of generating data on mainstream schools in the context of an interaction between the DHH students and their social-contextual world.

5.7 Research Questions

Having recognised the relevant issues discussed in the previous chapters, they had a great influence on the formation of secondary research questions as well as recommendations about how to study and develop a successful inclusive education. Based on the evidence and arguments provided in previous chapters, the research questions were developed as the following:

1. What are the experiences of DHH students and specialists in four mainstream schools in Riyadh, Saudi Arabia?
2. What do the specialists understand by the term 'inclusive education'?
3. What are the DHH students' and specialists' perceptions of the barriers to the successful implementation of inclusion for DHH students?
4. What are the DHH students' and specialists' perceptions of the support required to promote inclusion of DHH students?
5. What are the implications of the research findings for the development of inclusive practice for DHH students in Saudi Arabia?

The next chapter addresses the methodology adopted to realise the research questions set out above.

Chapter Six: Methodology

6.1 Paradigm

The most suitable approach for the current research was judged to be the interpretive paradigm. Unlike the positivist paradigm which seeks to reveal generalisable truths about particular phenomena, the interpretive paradigm views that: (1) human perception constructs knowledge; (2) knowledge is individually experienced rather than externally acquired; and (3) social reality is various and has multiple interpretations (Cohen, Manion and Morrison, 2013). In contrast to the positivist, the interpretive paradigm does not support the view that there is only one reality. Instead, researchers are seen as people reflecting on their environments, which can have consequences for their research. The interpretive paradigm does not ignore the influence of the personal involvement of those researchers. It also does not often require a generalisation of findings, though it somewhat gives applicable information for related contexts with similar participants (Kaplan and Maxwell, 2005). The interpretive paradigm chosen for this study is underpinned by the various philosophical assumptions discussed in the next sections.

6.2 Philosophical Assumptions

6.2.1 Ontology

Ontology is the researcher's existential position towards reality and understanding its nature—in other words, the researcher's belief in the existence (or nonexistence) of different realities within the social world being studied. In the current study, multiple social realities are assumed, and they are viewed as being constructed (perceived, understood, and experienced) by participants and created by social environments and culture (Cohen, Manion and Morrison, 2013). In the present research, this ontological assumption formed the necessity to explore the reality constructed, experienced, and

understood by specialist teachers and DHH students within their broad social environment and culture in mainstream schools.

6.2.2 Epistemology

In the interpretive paradigm, epistemology involves

“all knowledge and therefore all meaningful reality...[and] is contingent upon human practice, being constructed in and out of interaction between people and their world, and developed and transmitted within an essentially social context” (Crotty 2003: 42).

The current study aimed at exploring participants' experiences, understanding, and perception of the current experience and inclusive education for DHH students, as well as the barriers and supports required. Therefore, the research is underpinned by the epistemological assumption that specialist teachers (local supervisors, communication disorder teachers, and DHH classroom teachers), Deaf students, and Hard of Hearing students construct reality socially by their experiences, perceptions, and understandings. They also adopt various perspectives towards inclusive education for DHH students and the barriers and support required in mainstream schools. Therefore, this study required speaking with these individuals as 'experts', people with direct experience of inclusion or mainstreaming to find out more about their particular perspectives on inclusive education for DHH. As a further essential epistemological point, I cannot remain apart from the reality under study; my personal experiences could therefore influence both data generation and interpretation of the findings. Observations were utilised to document the experience of DHH students and specialists in mainstream schools which is compatible with the interpretive paradigm, the researcher's experiences can also be used to contribute to understanding (Guba & Lincoln, 1994; Patton, 2002).

The CoP theory has shaped features of this study. It calls for reappraisal and rethinking by interrupting existing discourses and focusing attention on overlooked possibilities for moving educational practice forward. In the Saudi context, the voices of DHH students and specialist teachers were one of overlooked contributions or possibilities in research about the experience of mainstreaming and inclusive education. Thus, CoP theory has motivated this study by a concern to bring the perspectives of DHH students and specialist teachers from the edges of circle of practice to the power in the centre. This theoretical framework aims to show that their voices can make a contribution to the conversation as a core group as this study aims to provide a set of recommendations for Saudi policy. CoP theory helped also in shaping the research instruments to gather, generate and interpret information within mainstream schools in order to make a contribution in thinking and, as a result, provide a challenge to existing philosophical assumptions about the mainstream experience and inclusive education for DHH students. CoP theory also contributed in branching the main aim into objectives. Improving the education system for DHH students in Saudi Arabia requires exploring certain issues, answers to which can act as contributions for change. CoP theory helped also in shaping the analysis of findings by thinking about the wider community; the development of inclusive schools has to be seen in relation to wider factors that may help or hinder a progress.

6.3 Methodology and Research Design

6.3.1 Qualitative Research

The methodology arose from the ontological and epistemological position constructed by the researcher within an interpretative paradigm. The qualitative approach is essentially associated with the interpretive paradigm, using case studies and purposive selection of participants (Yin, 2013). This study was designed as a single-

case study of the experience of DHH students in four boys' mainstream primary schools in Riyadh. Three qualitative research methods were employed: interviewing specialists and DHH students, conducting observations in these schools and analysing policy documents relevant to all four schools. The issue of mainstream provision for DHH students was therefore studied within its natural context; there is no plan to generalise the findings or look for causality. Rather, the study aims to explore details and understand the reality within its actual situation (Patton, 2002) obtaining a rich understanding of the complexities of inclusive education and its barriers/supports while placing this within its natural environment.

6.3.2 Case Study

Personal experience and the review of the literature have motivated the investigation of valuable experiences, knowledge and perceptions in the practice of including DHH students in mainstream schools within the Saudi context. This suggested that a case study approach would be most suitable to enable the current study to explore this context in depth (Yin, 2013). Moreover, it provided a deep understanding of the topic and allowed the investigator to holistically generate meaningful data for the natural context (Yin, 2009).

It also allowed for a process of triangulation; triangulation is understood in this study as using different methods of data generation to provide different perspectives on a common issue. Such triangulation was utilised in the current research to fulfil a comprehensive understanding of the case being studied (Denzin and Lincoln, 2008) and capture a range of perspectives on the one issue of the experiences of DHH students in mainstream schools. All four types of case studies were considered in approaching this research: 1) the single-case design, which would include one case

within one context and one unit of analysis; 2) the embedded, single-case design, which would include one case within one context and multiple units of analysis; 3) the multiple-case design, which would include more than one single-case design; and 4) the embedded, multiple-case design, which would include more than one embedded, single-case design (Cohen, Manion and Morrison, 2013; Yin, 2013). These basic types of case study designs are illustrated in Figure 6.1.

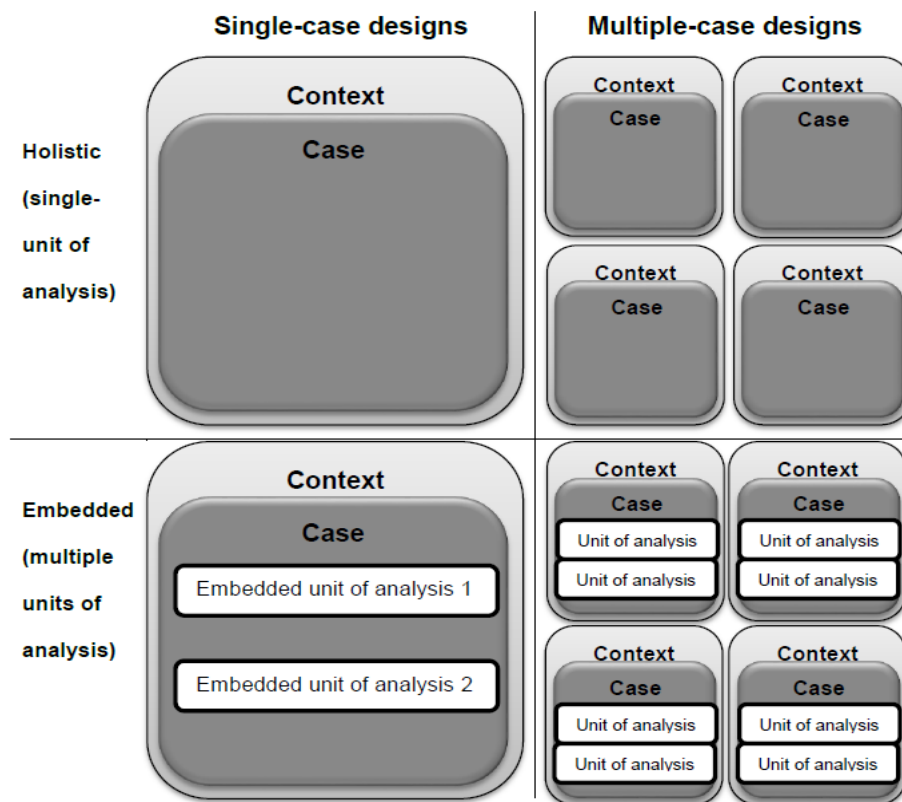


Figure 6. 1 Basic types of designs for case studies.

Sources: Adapted from (Yin 2013: 46).

This research was designed as a single-case study, with the case being the experience of DHH students within the context of four mainstream boys’ primary schools in Riyadh, Saudi Arabia. These schools adopted a mainstreaming approach for DHH students—two schools for the Deaf and two schools for the Hard of Hearing.

Each mainstream school comprised one local supervisor, two or three communication disorder teachers (i.e., the specialists), between nine and 11 DHH classroom teachers, between 15 and 20 Deaf students (in Deaf mainstream Schools) and between 30 and 40 Hard of Hearing students (in HH mainstream Schools).

The sections of analysis were: the students' documented experiences in these schools, specialist teachers' understanding regarding inclusive education, and perceptions of barriers and supports required to work toward successful inclusive education within the Saudi context. This research was developed as a single-case study because it was focused on a single category of students with SEN (DHH), in a single place/context (Riyadh), and a single population sample (boys' primary mainstream schools). However, there are four sites within this context and I kept an open mind during data analysis. If the schools turned out to be different with respect to the experiences of D and HH students, I was prepared to switch design to a single-case study with embedded units of analysis.

Consequently, participants seemed to make little distinction between the groups of Deaf and Hard of Hearing students when answering the interview questions. Instead, they considered their experiences in mainstream schools and improving inclusive education provision as basic ideas and were less focused on categories or degrees of hearing loss, whether Deafness or Hard of Hearing. This change in research design was not, however, necessary and a single-case study design remained most appropriate. Therefore, the findings of this research refer mostly to 'Deaf and Hard of Hearing' (DHH) students as a combined group and responses concerning the two categories are analysed jointly. However, where a respondent expressed a clear difference between these two groups, this has been mentioned and reflected in the findings' chapters.

The reason for focusing on this topic was my long experience of DHH education as a primary school teacher, supervisor, translator and, later, as a lecturer in Al-Jouf University. This gave me the ability to understand the background to the case based on experience and familiarity within its natural context. The reason for locating this study in Riyadh was that it is not only the capital city of Saudi Arabia, but also the biggest city in which a fertile field for study was found. Riyadh possesses a uniform educational policy, with national culture and religious beliefs characteristic to Saudi Arabia as a whole. Saudi Arabian primary education is segregated by gender for cultural and religious reasons. As I am male, it was necessary for the studied schools to be male schools. Therefore, four boys' primary schools in Riyadh, which have adopted a mainstreaming approach to DHH, were chosen for this study—two for Deaf and two for Hard of Hearing students.

6.4 Procedure and Implementation

6.4.1 Participants

The participants were Deaf and Hard of Hearing (DHH) students and specialist teachers in DHH education (local supervisors, communication disorder teachers and classroom teachers) in the selected schools. Later, four parents were added (two of Deaf and two of Hard of Hearing students).

Four boys' primary schools, two for Deaf and two for HH students. The pupil participants (n=2 per school) were selected based on age (between ten and 12 years, because they had, by that age, more experience of mainstreaming), and the specialist teachers (n=3 per school) were selected based on their experiences and levels of qualification. The number of students participating in the research was eight—four Deaf and four Hard of Hearing. 12 specialist teachers, four local supervisors, four communication disorder teachers, and four classroom teachers were also involved.

Four parents of DHH students were later added to enrich dataset— two of Deaf children and two of HH children. Therefore, a total of 24 participants shared their experience and knowledge of the current experience of mainstreaming and inclusive education for DHH students and the barriers/support required for success in the Saudi Arabian context.

The participants were considered to belong to particular communities of practice because all were directly involved in a mainstream school attended by DHH students. Communities of practice develop from groups having constant discourses in the workplaces which offer chances for what the members can, or cannot, discuss (Lave and Wenger, 1991). The four schools were therefore treated as four communities of practice.

The balance of quotations from the three groups of participants is somewhat heavily weighted in favour of specialist teachers. Using quotations of DHH students in some aspects might limit the content. Moreover, DHH students were not asked about issues such as their understandings of the phrase 'inclusive education', nor were their parents. To clarify, issues related to most themes were not particularly prominent in the interviews with DHH students or their parents. The perspectives of the specialist teachers differed as having the most purports. Furthermore, the number of specialist teachers exceeds the number of the participants from DHH students and their parents and equal to them together (12 v 12). The twelve specialist teachers were also well educated in the subject of DHH education, inclusion and having experience of mainstreaming. They also had positioned themselves in a certain way in what seems to be a consensus. Consequently, numerous specialist teachers' answers contained different meanings in one response, so their quotations were expressed clearly, explicitly and frequently in different frameworks or issues of these sub-themes.

Nonetheless, lots of DHH students' quotations and their parents were included. Moreover, many statements have mentioned their views whenever they agreed with the specialist teachers, but excerpts from specialist teachers were provided as their excerpts had more clarity, explicitly and implications for practice. It could be concluded that the specialist teachers are in part speaking for the DHH students to bring their voice clearly into the centre point of a community practising education and research for DHH students.

6.4.2 Data Generation Methods

The instruments chosen to generate data for this study were shaped by the themes identified in the literature review. A mixed methods design was adopted, extending the possibilities for a rich dataset through the use of multiple methods (Creswell, 2007). Triangulating observations and documents with interviews offered richer data about the experiences and inclusion of DHH students and allowed issues missed during interviews to emerge (Patton, 2002). Literature was also to illuminate the research findings, providing a more complete picture of the subject under investigation. Applying qualitative methods helped access participants' knowledge, shaped by the research questions but without restricting participant's responses by rigid questioning. I used three main methods to generate these qualitative data: interviews, observations and documentary data. These methods allowed me to use data from multiple sources and perspectives to generate findings. The following sections describes the methods used in this investigation.

6.4.2.1 Document Analysis

Documents were used to identify instances of the policies of mainstreaming, SEN and inclusion, which are supposed to be practiced in mainstream Saudi Arabian schools.

Analysing available documents can help to ensure principles of fairness, accuracy and relevance and to identify underlying themes. I analysed important documents relating to the study's main themes, specifically inclusive education for DHH students. Documentary data were found in various sources, such as national policy declarations, official responses, online resources for institutions about staff or programmes, school websites and school brochures (Corbetta, 2003). The Saudi Arabian Ministry of Education, the Local Educational Authority in Riyadh and mainstream schools for DHH students were also sources of relevant documents. Moreover, phrases such as 'DHH', 'SEN' and 'inclusive education' were used to determine whether documents might be relevant to the subject of the current research.

6.4.2.2 Interviews

Interviews with 'experts' on the topic of DHH students' experiences in mainstream schools formed the core dataset for this study. An interview in research is

“an interchange of views between two or more people on a topic of mutual interest, [seeing] the centrality of human interaction for knowledge production, and emphasis[ing] the social situation of research data” (Kvale, 1996: 14).

Interviews are widely used to generate data for case studies, and in particular semi-structured interviews, in which the interview questions are flexible and a relatively open situation is available to the respondents (Cohen et al. 2013). The semi-structured interview can be informed by themes identified in the literature review, but allows me to identify the meaning behind participants' statements concerning their knowledge, perceptions and experiences—offering a chance for long and detailed responses.

This flexibility and other advantages made the semi-structured interview the most appropriate for this study. I designed the interview structure to be flexible, allowing modifications to questions and subject matter to better identify the reality of inclusive

education for DHH students in Saudi Arabia. Specifically, using semi-structured interviews allowed the current research to:

1. Generate data about participants' experiences with the present provision for DHH students in mainstream schools.
2. Explore what specialists understand by the phrase 'inclusive education'.
3. Explore perceptions of barriers/support to working toward inclusive education for DHH students in the Saudi context.
4. Hear DHH students' and specialists' voices, giving them a certain degree of freedom to talk about what is important to them within the research context.
5. Listen to interviewees' perceptions to help to understand what they thought was important in their situations.
6. Keep an open mind to expected and unexpected eventualities that might be encountered (Cohen, Manion and Morrison, 2013).

6.4.2.3 Observations

Observing the experiences and inclusion of DHH students in the Saudi setting allowed me to enter the context and helped to underpin understanding of this case (Cohen et al., 2013). Observation can be defined as a way of understanding what happens in reality by watching and recording different aspects of a case (Fawcett, 2009). Cohen et al. (2013: 475) point out that “[o]bservational data may be useful for recording non-verbal behaviour, behaviour in nature or contrived setting[s]”. In the current study, it was anticipated that observations might offer data that provided a more complete picture of the researched case. Observational data also played an essential role, checking more practices in mainstream schools which might not be generated by the other methods used in this research.

Three types of observation can be identified based on levels of structuring the observation elements. However, in semi-structured observation, researchers develop an 'agenda of issues' but generate information to emphasise these issues in a far less structured style (Cohen et al. 2013). Therefore, the current study employed semi-structured observation in which the selective and key emerging issues related to DHH students in mainstream schools were raised from the observation itself, rather than from the my planning observable issues in advance. (See Appendix F, Table 6.2). Furthermore, as this research did not include pre-existing hypotheses, the semi-structured observations offered the possibility of a richer description of the case. (Cohen, Manion and Morrison, 2013).

Observations were mainly conducted in classrooms, playgrounds, assemblies, corridors, activities, environments and facilities. I considered what people said, who was involved, the role and actions of human sources and the location within the school. In each school, observations were conducted three times, 30 minutes for each. All the individuals in these schools were observed as they were informed by the information sheets (DHH students, parents, specialist teachers) or by the letter of LEA and MoE to facilitate my task (Appendix Q) which was signed by all school staff as habitually of all LEA and MoE instructions to be informed. I might also have a familiar face to specialist teachers and DHH students as one of this community where I worked with them as a former colleague until the beginning of this research in the UK. It could be informed also that during the observations, some questions were added and recorded to the field notes. Therefore, as these issues was observed openly, I took on the role of an overt observer and became a watchful non-participant in the events being studied (Cohen et al., 2013).

As non-participant observers gather what they experience and think, field notes were a useful means of recording observation details (Miles & Huberman, 1994). However, there were some issues in utilising the field notes. It is possible that participants may have changed their behaviour since I recorded their movements, or the participants may have felt self-conscious about being observed and, therefore, behaved differently than they would have unobserved. Additionally, even if the researchers delay recording the notes until after the observation time, they may miss details (Ary, Jacobs and Sorensen, 2010). Therefore, to overcome these difficulties, I have previously determined observation techniques, which involved identifying the time for each observation and recording the happenings as quickly as possible after the event (Cohen, Manion and Morrison, 2013). This was overcome also by resorting immediately to private places where I could record the observations freely and without raising the doubts of others, such as empty classrooms, offices, and domestic mosques in these mainstream schools. Therefore, plentiful informative events about the experiences of DHH students in mainstream schools were observed and much evidence regarding the barriers and supports required for successful inclusive education were extracted.

6.4.3 Data Analysis

The interview questions, semi-structured observation and document analysis were framed to address the study's five research questions and were informed by concepts emerging from the review of the literature. Thematic analysis was considered the most appropriate method of analysis; it was consistent with the selection of data generation methods, participants, theoretical framework and methodology (Miles & Huberman, 1994). Further relevant advantages of using thematic analysis, Braun & Clarke (2006: 37) (See Appendix G) include pragmatic considerations (flexibility, relative ease of

learning and accessibility for an unexperienced researcher); appropriateness for the dataset (namely usefulness for summarising key features of a large body of data offering a 'thick description' of the dataset as well as unanticipated insights, and highlighting similarities *and* differences across the dataset). Of particular relevance of this study was the fact that the results of thematic analysis are generally accessible to the educated general public and can be useful for producing qualitative analyses suited to informing policy development.

One important aim for this study was to develop a set of recommendations for Saudi policy to support the functional inclusion of DHH students. Once the data were generated, they were subjected to theoretical thematic analysis as defined by Braun & Clarke (2006), following their procedure for coding and analysing the qualitative data. This approach represented a flexible model that followed the six steps of thematic analysis. These steps are outlined in Table 6.3 (Appendix G).

This study is concerned with the current provision programme that DHH students and specialists are experiencing in mainstream schools in Saudi Arabia and how their understandings and perceptions have been shaped accordingly. Thus, this was the focus of coding the data relevant to the emergence of sub-themes around experiences in mainstream schools, understandings of inclusive education and perceptions of barriers and support required. As expected, the three chosen research methods generated a considerable volume of qualitative data. Therefore, data summarising was useful for abstracting and transforming the data into meaningful clusters (Miles & Huberman, 1994). The three steps to reducing and coding the qualitative data followed in this study were suggested by Miles & Huberman (1994): 1) initial coding based on themes identified in the literature review; 2) looking for patterns in coding and

reformulating the coding notes; and 3) constructing a model of perceptions by considering differences, similarities and consistency.

The themes were based on the main concepts identified in the literature review (see Chapter 4). Moreover, additional themes and sub-themes emerging from the thematic analysis were added. All themes are divided into sub-themes and identified in tables attached in the appendix. The chapters of the Saudi context, Deafness, literature review, and the theoretical framework help to provide an understanding the findings. Furthermore, to ensure that the meaning was not transformed, the first analysis took place in Arabic and was then translated into English.

When the data generation process was completed, the process of analysis started by transcribing immediately, into Arabic, the interviews and observations. Chunks of meaning were derived from individual transcripts systematically by grouping responses from specialist teachers and DHH students. Because of issues highlighted in emerging themes, an extension of interviews with four parents of DHH students was required and achieved. The tables arranged the analysis framework by themes (see Appendix H, I, K, L, M).

6.5 Trustworthiness

Trustworthiness in qualitative research is an alternative concept to the objectivity, internal validity, external validity and reliability required of quantitative research. Trustworthiness is evaluated by *“a set of criteria advocated by some writers for assessing the quality of qualitative research”* (Bryman, 2016: 701); trustworthiness considers how to establish the authenticity of qualitative research as well as reliability, dependability, transferability and confirmability (Guba and Lincoln, 1994). These criteria provide a platform to demonstrate the soundness of research findings. The

main criteria of trustworthiness have been considered to assess the elements of this research, and what follows is an account of trustworthiness in the current study.

6.5.1 Credibility

Credibility is “*used to establish a high level of harmony between the participants’ expressions and the researcher’s interpretations of them*” (Given (2008: 138). Therefore, qualitative research must try to interpret data so that it matches the participants’ experiences and understandings of realities. The role of credibility in qualitative research is aligned with the role of internal validity in quantitative research, both of which aim to obtain believable findings (Guba and Lincoln, 1994). The following strategies were used to ensure this study’s credibility.

To determine and check accuracy and agreement of the interpretation process, the participant’s feedback has taken different ways. First, I invited some participants’ feedback; they were shown the data analysis and were given the opportunity to explain their responses for the purpose of validating their transcripts and if the interpretation seemed confusing to ensure a trustworthy understanding of the participants’ perspectives. Another way was by, for example, asking about the meaning immediately during the interviews or after the end. More ways of obtaining this feedback was later during and after the data analyses process through contact by phone or email because some responses were particularly relevant to emerging themes.

Other strategies were also used to ensure credibility of translation, transcription and interpretations. In qualitative research, the processes of data analysis and interpretation rely on the researcher’s perceptions (Creswell, 2003). In this case, I frequently involved my supervisory team and obtained feedback. With the support of

that supervisory team, the processes of coding and thematic analysis were strengthened with the help of two Saudi expert colleagues, both of whom hold PhDs from schools of education—one from Exeter University and the other from Birmingham University in the United Kingdom. The colleagues' assistance began with translating the interview schedule and the students' response from English into Arabic and vice versa. They also reviewed the data coding and categorisation for accuracy and to confirm that the analysis process interpreted and expressed the participants' experiences and perceptions accurately, minimising the researcher's personal biases.

6.5.2 Dependability

Dependability in qualitative research aligns with reliability in quantitative research. It is *“the process of the enquiry and the inquirer's responsibility for ensuring that the process of the enquiry is logical, traceable and documented”* (Schwandt, 2014: 258). Dependability assesses whether study's results are consistent and would be similar if the research were repeated with the same, or with similar, contexts and participants. Therefore, in this research, the methodology chapter described fully how the research was conducted and analysed, which will allow reader to understand the way the study was conducted and the data analysed (Guba and Lincoln, 1994).

Translation is a vital factor related to dependability because it is necessary to prevent the research from falling into misinterpretation of the language. The translation processes from Arabic to English and vice versa were explained earlier in section 6.6.1, and they overlap with the purpose of dependability in this research. However, another kind of translation was also used to improve the dependability of this research—translating the Arabic Sign Language used by the Deaf students in the context of Deaf mainstream schools. Although I have worked as a specialist teacher

of Deaf students for twenty years and can understand their meaning immediately in the Arabic Sign Language, he obtained assistance from local supervisors in each of the Deaf mainstream schools to ensure dependability and correct any misunderstandings. I can understand DHH students as he could be considered as a member of the community practising education and communication with DHH students for long time. This has also raised the feeling of familiarity between me and DHH students as well as the other participants as a colleague (for specialist teachers) or as a responsible (for parents).

The interview questions for, and answers from, Deaf students were translated from Arabic Sign Language into Arabic. Then, all the data from all participants were transcribed and later translated from Arabic to English. As explained above, various checks were implemented to assure the translation accuracy. Considering translation in the dependability process helped to ensure that themes were as close as possible in meaning in all three languages.

6.5.3 Transferability

Although it is impossible to generalise the findings from investigating a unique social phenomenon, qualitative research can be assessed for transferability. Transferability refers to the extent to which research findings can be transferred or applied to another context. It is defined as the researchers' belief in the extent to which their findings might be applicable to similar or different contexts (Given, 2008). Transferability in qualitative research aligns with external validity in quantitative research (Guba and Lincoln, 1994).

In this study, I attempted to meet the requirements of transferability by assessing representational generalisation based on two broad issues: the accuracy of generating

and analysing the data and the representativeness of the participants (Ritchie et al., 2013). The first step was considered through the three qualitative methods chosen and adherence to rigorous data generation processes and analysis, as described above. This study also provided a rich description regarding the participants and Saudi context. Rich descriptions allowed the readers to recognise how closely their conditions correspond with the research context so that findings may be matched (Gibbs, 2018). However, as it is not possible to fully generalise the findings, this research provided evidence about participants' perceptions likely to be relevant to similar contexts.

The representativeness of the participants (Ritchie et al., 2013) was achieved by investigating the experiences and perceptions of DHH students, specialist teachers and parents who are typical of the range of people present in Saudi Arabian boys' mainstream primary schools that admit DHH students. The participants were all from the same culture and educational background. It is, therefore, reasonable to transfer these findings to the Saudi context in general, outside the specific context of Riyadh. There are roughly 316 programmes for DHH students in mainstream schools throughout Saudi Arabia, from which this research sample was drawn. This sample, therefore, constitutes one of the target Saudi populations and suggests that the transferability of the findings is high.

6.5.4 Confirmability

The fourth procedure for establishing the trustworthiness of qualitative data is confirmability—the extent to which generated data enriches the research findings (Cohen, Manion and Morrison, 2013). Confirmability is usually established by recording data from different sources via triangulation. Triangulation offers the

possibility of alternative in-depth explanations for a researched phenomenon via different data generation methods to achieve accuracy, confirmability and trustworthiness (Guba and Lincoln, 1994). The strengths of one research method or source can compensate weaknesses inherent in another (Jack and Raturi, 2006), and employing different sources and methods of data generation help broadly explain a phenomenon.

To ensure adequate confirmability within this study, a range of data generation methods was used (i.e., document analysis, semi-structured interviews and observations) to provide more in-depth exploration of participants' perceptions and experiences. Data from one method might be contradicted or supported by data from another method. Moreover, the diversity of the participants constituted a variety of data sources and richness—specialist teachers (local supervisors, communication disorder teachers and classroom teachers), Deaf students, Hard of Hearing students, parents of Deaf students and parents Hard of Hearing students. This diversity of data sources improved confirmability and the probability of data being comprehensive to provide a complete picture of the researched case.

6.6 Ethical Issues

Ethical principles are essential for researchers to approach their work in an ethically acceptable manner (Pring, 2002). In this study, ethical considerations included access to schools and interviews, obtaining participants' consents, giving a right to withdrawal at any time and protecting the identities and confidentiality of the participants (Cohen, Manion and Morrison, 2013).

Ethical approval was obtained from Education Research Ethics Sub-Committee (EdRESC) at Plymouth University before conducting this research. Information sheets

and consent forms for the DHH students, specialist teachers and parents (Appendix R) were included in this application and approval was issued in April 2017 (letter of approval in Appendix M).

Ethical issues regarding young children participating in this study were particularly important. Although all researchers in contact with children are required to have a Disclosure and Barring Service (DBS) clearance disclosure number (EdRESC, 2016), such a check is not applicable in Saudi Arabia. However, when I met with children, there was always another adult (e.g., translator) present.

The letter of approval from the University of Plymouth's EdRESC was forwarded to the Local Education Agency (LEA) of Riyadh, which issued its own letter facilitating my task (Appendix P). Upon obtaining approval, I began data generation. Interviews were arranged with specialist teachers and DHH students at the four mainstream schools, as were observations. It was easy to communicate with the Deaf students via the Arabic Sign Language, since, as mentioned previously, I have worked as a specialist teacher of Deaf students for twenty years and can understand them immediately. Nevertheless, I have obtained assistance from local supervisors in each DHH mainstream school to help the DHH students feel comfortable by being near familiar people and to prevent possible misunderstandings.

Following discussions with the supervisory team of emerging findings, it was proposed to apply for an extension to Application 16/17-175 to include four parents of DHH students to be interviewed, and this was granted in December 2017 (Appendix O). Then, private arrangements and contact were made with the parents of DHH students, either by phone or with interviews in their children's mainstream schools.

I was aware of several other ethical considerations, including concerns for confidentiality. The respondents were informed regarding the aim of this research and were assured that no harm would be caused by their participation. They read the provided information sheets and signed the consent forms, confirming their readiness to participate along with their full awareness of their right to withdraw at any time. To maintain their confidentiality, the participants were informed that their records would remain anonymous. Therefore, the data were anonymised by removing any identifying details. Moreover, this issue became of less of concern when I decided to be responsible for the translation of the transcripts myself with assistances from some professional colleagues in the field only after anonymisation process.

A further issue concerning confidentiality involved the limited number of participants, which could have led to others being able to identify the respondents. With this in mind, I altered the participants' and schools' names into codes of letters and numbers, instead of Arabic names (see examples in Section 7.1). All recordings were also stored on the secure University of Plymouth OneDrive iCloud, and they were password protected to assure confidentiality. Moreover, the assistance obtained from some colleagues in the processes of analyses and translation to English, as described above in the trustworthiness elements, happened after the coding and hiding the participants' identities. In the information sheets, there was an account of description regarding my awareness of ensuring the safety of participants about power imbalance and fear of the respondents finding out about what they said. Consent letters to be signed off by all participants distributed with information sheets were also obtained. As I have worked as a colleague with the participants in these mainstream schools previously, there may be a previous familiarity between me and them that might has reduced the participants' fear of being found out or harmed by a higher power position. Moreover,

I obtained a declaration from all authorities involved to be shared. Overall, these ethical procedures have minimised the harm that participants could face because of their participating in this research.

Chapter Seven: Current Experiences of DHH Students in Mainstream Schools

7.1 Introduction

This chapter will focus on four key themes: structures and processes, relational factors, educational choice and participants' views of the educational provision for DHH students. These themes were prompted by concepts from the literature and issues which emerged during data generation. Findings have been analysed through the lenses provided by the community of practice theory and the interactional model of disability (Wenger, 1998; Ainscow, 2005a) (see Sections 5.3 and 5.4), drawing upon literature from the field of inclusion in DHH students' education. The analysis was framed by Ainscow's recommendation for research into the inclusiveness of settings, which in itself is framed by CoP. CoP is here understood as including both physical and human resources arranged in particular configurations, which have social-cultural and historical influences (Saudi culture, Islam, and DHH context) specific to this particular context. Taken together these findings offer a view of provision for DHH students in mainstream schools in Riyadh that will be used in the following chapter to generate ideas about how this provision might be developed in the future. The investigation in this chapter is a critical step to proceed to the other objectives of this study. It is an integral part of the exploration of how to work towards inclusive education; documenting the current experience therefore has an essential contribution to the next stage of the investigation.

Quotations taken from the interviews and notes from the observation as well as the documentary data were used to illustrate ideas essential to the identified sub-themes and issues. These excerpts are presented exactly as they appeared in the transcripts, although repetitions, hesitations, and fillers are removed.

I continued to be aware of several ethical considerations during analysis (see Section 6.7) such as the safeguarding and no harm issues raised by the participants. Therefore, all participants were informed and have signed the consent sheets that they would be allocated identification codes to protect their privacy. Therefore, I altered the participants' and schools' names into codes of letters and numbers, instead of Arabic names, to help ensure that no harm would be caused by their participation. This could be found in the list of abbreviations (see Table of Contents). For example, Specialist Teachers coded (ST), Deaf Student (DS), Hard of Hearing Student (HHS), Deaf Student Parent (DSP), Hard of Hearing Student Parent (HHSP), Deaf Students School (DSC), and Hard of Hearing Students School (HHSC). For each group, numbers were added after the code to differentiate between respondents and schools. For instance, Deaf student's Parent number (2) has been coded (DSP2), and Hard of Hearing Students School number (1) has been coded (HHSC1).

7.2 Structures and Processes in Mainstream Schools

This section is devoted to presenting aspects of the data which relate to the experiences of DHH students and specialists in four mainstream schools in Riyadh, Saudi Arabia. The theme of structures and processes of current experiences of DHH students in mainstream schools comprised several parts. Comments from the three groups of participants mentioned in this key theme fell into a wide range of domains. However, after coding and analysis procedures, as described in the methodology chapter, these domains were classified and organized into six primary sub-themes: mainstream schools' locations and environments, responsibility and administration, classroom activities, extracurricular activities, services, and curriculum and assessment. (See Appendix H: Table 7.1).

7.2.1 Mainstream Schools' Locations and Environments

A recurrent sub-theme in the interviews, supported by observation, was a sense amongst interviewees that the mainstream schools' environments and locations were an essential aspect of the current experience of DHH students. Several issues were also identified to represent this sub-theme and clarify practices in mainstream schools associated with the current provision. These issues include the schools' locations, DHH students' challenges, and the schools' environments.

It was evident that all the four **mainstream schools (locations)** for DHH students were not their neighbourhood schools and were located far away from their homes. Riyadh city is the capital city of the Kingdom of Saudi Arabia, comprising a considerable portion of the population. The mainstream schools for DHH students served large areas including various neighbourhoods. This was evident as the Specialist teacher 2 (ST2) included comments on Deaf Students' School 1 (DSC1), located to the east of Riyadh: He said:

"This is certainly not a neighbourhood school; our students come from far neighbourhoods from the east, west, south, and north of the east of Riyadh. The same situation is in the west program for the Deaf in Riyadh" (ST2).

DHH students themselves, who used buses to come from these distant neighbourhoods, confirmed this:

"I live far away and come by bus" (HHS2).

"I live far from here, and this school is not the nearest school from my house" (DS3).

Another observed problem was that most of the mainstream schools, including those with DHH programmes, were located on general commercial streets. In these streets, there were trucks, cars, and business traffic, which were a nuisance for DHH students

who wear hearing aids. This was also observed near the HHSC1 and DSC2 and was further illustrated by ST7:

“Most of the schools are located on big streets, creating a loud environment for those students who use hearing aids throughout the school day... it creates noise and confusion” (ST3).

The above point led to the identification of another issue, which emerged from the responses of the participants: the **trauma** that DHH students faced in travelling to and from these distances. One problem was the length of the journey, owing to a long distance, traffic jams, etc. One of the Deaf students’ parents illustrated this:

“My Deaf son wakes up a long time before his hearing brothers and sisters (approximately one and a half hours) and gets on the bus at 5:00 am. He has to travel a long distance, through the traffic jams of Riyadh, to arrive at his school. I am not happy about this, but I have no other option. His hearing brothers wake up long after him and simply walk to the nearby school” (DSP1).

Moreover, car accidents are one of the greatest concerns and problems that DHH students face, especially during the winter and rainy season. By way of illustration, one of the HH students’ parents put it:

“The schools that have special classrooms are far from my house and my son is forced to get the bus, which scares me, and I ask my God daily to save him. I am worried that he’ll have an accident or lose his way, as has happened previously” (HHSP1).

The next hardship is mentioned in the interaction sub-theme (Section 7.3.1), but it could be expanded upon here, as it was one of the problems that DHH students suffered from in the current experience. DHH students felt like strange people in these faraway mainstream schools. They had not had chance to form prior friendships with hearing peers. This often led to a reduction in interaction with hearing students. For instance, DHH students acknowledged this:

“I play with my HH friends. I do not play with the other students because I do not know them, and I live far from this neighbourhood” (HHS1).

“I am not happy here; I do not know anyone, just my Deaf friends” (DS4).

One of the Deaf students also preferred his general neighbourhood school despite the fact that there were no services provided, as it made him feel less lonely. To clarify, he commented:

“The nearer a school is to my house the better. The school beside my house is the best, as I can go with my friends and neighbours, and play with them during and after school” (DS2).

The current study also found points connected with the issue of **mainstream schools’ environments**, both in general and in special classrooms, as well as the schools’ facilities. Although regular classrooms were generally bigger than special classrooms, several responses mentioned that these classrooms were not big enough due to the large number of hearing students in these classrooms (ST3 & ST12 & HHS2 & DS2). ST6 also referred to *“the need to enlarge the regular classrooms”*. There was also a lack of sound insulation; there were no carpets on the floor and the air conditioners were not the quiet type. This was also marked by ST7, who said:

“These schools were designed to accommodate hearing students only; sound insulation has not been considered, so the classrooms are noisy ... for DHH students wearing hearing aids”.

The problem extends to visual provision, which is also essential in educating DHH students. In the regular classrooms, there were few visual tools and devices, and the level of light was low, with dark wallpapers glued on windows to reduce the heat from the sun. It was recommended that:

“The lighting and the insulation should be prepared well and the other visual tools should be proportional to DHH students’ needs” (ST6).

Outside the classrooms, in HHSC1 and DSC2, no signboards alerted students or even to visitors what their rooms or facilities were for. Deaf students needed pictures at least or signs in relation to this, as an example, one Deaf student complained:

“There are no guidance doorplates. We know the people, and, knowing this, we know what each room is for. For example, we know the psychological services room because we know the psychologist” (DS2).

Issues related to the special classrooms were not, however, particularly prominent in the interview data. It was evident from the observation that the special classrooms were designed to serve as excellent educational environments for DHH students. Several visual means existed, lighting was active, carpets and air-conditioners accounted for sound insulation, there were resources for the hearing aids, and it was noticed that the environment was clean, this was also illustrated by an HH student:

“It is better here. If I have to go upstairs [regular classrooms], I would like the same learning and teaching tools to exist there” (HHS1).

However, all the special classrooms in all the mainstream schools were on the ground floor alone. Therefore, there was some noise from the windows overlooking the school square, and the room was situated near a passage used by all students on their way to this square.

Generally, it was evident that DHH students have special classrooms or units in these mainstream schools. These units were prepared well for them, which may be due to specialist teachers who prepared well in pre-service training. However, from the literature view (Section 4.4) it could be argued that this represents provision more appropriately labelled as integration, despite the excellent performance and knowledge of specialist teachers (see Section 8.2).

7.2.2 Responsibility and Administration

This sub-theme is associated in defining the current experience in DHH mainstream schools. Three associated issues are illustrated below: responsibility for DHH

students, associated duties, and administration of mainstream schools for DHH students.

When the participants were asked about the **responsibility** for DHH students in mainstream schools, the majority commented that DHH students were entirely under the obligation of the special education program represented by the specialist teachers. Although some duties were assigned to other staff, most of work fell on the shoulders of the specialist teachers. The specialist teachers in mainstream schools shared the responsibility led by the specialist supervisor teacher of the special classrooms. General teachers, even those who teach DHH students in regular classes, consult specialist teachers in every matter so as to avoid accountability. By way of illustration, one interviewee reported that:

“The special education classrooms and their teachers are responsible for students with hearing loss” (ST3).

Another said:

“The first and the last person responsible for DHH students is the specialist teacher in all events and participation. The general education teachers have nothing to do with our students” (ST2).

Another reported issue was the **duties** that specialist teachers were responsible for. These duties were under the responsibility of special education teachers from the beginning of the school day and year until the end. This included organising their transportation, behaviour, educational affairs, administrative affairs, and even the social affairs inside and outside the school. In all cases, informants reported that it included:

“All the classrooms and extracurricular activities, assessments, and participation with hearing peers” (ST2).

ST5 added:

“We are in charge instructionally, socially, and morally of everything regarding the professional and administrative affairs”.

ST7 also stated:

“Even if the HH student was integrated full time [in the assessment period], his assessment in general education is one of our missions until he becomes independent of SEN services, then his responsibility goes to general teachers”.

Likewise, it was observed in the both Deaf students' schools (DSC1 & DSC2) that the **school administration** avoided intervention with Deaf students and referred all their affairs to the local supervisor teachers. Moreover, despite several visits to mainstream schools, neither educational supervisors from the MoE nor the Local Educational Administration were encountered, which supported the view that all tasks were being held by specialist teachers and were mostly their responsibility alone.

What is surprising is that:

“The administrations [in mainstream schools for DHH students] are not specialised in SEN, and there is no understanding for their characteristics, abilities, and special individual differences and needs that differ from hearing students” (ST4).

Therefore, this could imply that their functions might not exceed controlling the attendance and departure of the school staff (ST6). As a result, *“the full responsibility lies on the shoulders of the special education program” (ST7)* and in different cases could face *“uncooperative administrations” (ST8)*, owing to *“a lack of awareness and training on SEN's concept” (ST5)*. Therefore, *“the administrations of mainstream schools for DHH students need to be educated well regarding SEN before they are assigned in these schools” (ST7)*.

As illustrated above, administration and responsibility for DHH students in mainstream schools had little participation from regular staff and lies more on the shoulders of specialist teachers. This could conflict with provision such as inclusion. As discussed

in Section 4.5 concerning the differences between integration and inclusion, in integration, the specialist teachers are responsible for students with disabilities, whereas in inclusive provision the regular classroom teachers are responsible (see Table 4.3).

7.2.3 Classroom Activities

Classroom activities were mentioned most often by all sets of participants as important aspects of the current experience of DHH students in mainstream schools. The participants divided the classroom activities into 1) subjects in which DHH students sit with hearing peers in regular classrooms and 2) those which DHH students take in special classrooms.

All participants mentioned the classes of **sport and art** as official subjects in which DHH students sit with hearing peers in the regular classroom. Each class is certified from the Ministry of Education (MoE) as a formal class, which includes curriculum, assessment, objectives and written preparation. These classes are given twice weekly. Some of the specialist teachers, as illustrated in the following excerpts, confirmed this:

“Sport and art are classroom activities [like other subjects], as their teachers have an official plan to teach” (ST7).

“The teachers of sport and art have official curriculum and objectives planned from the MoE, and they have minimum skills which should be mastered by students” (ST6).

However, there was a sense of dissatisfaction amongst interviewees regarding the classes of art and sport. It was highlighted that they had deficiencies in applying the requirements of incorporating DHH students into the regular classroom. There was no real use of teaching methods, learning tools, academic skills, and learning objectives. General classroom teachers tended to teach these classes, causing specialist

teachers and DHH students to consider them as extra or entertainment-driven classes.

This was evident as one participant put it:

“I do not consider that there are really classroom activities given to DHH students in mainstream schools, even though they take sport and art with hearing peers. I consider those classes as extracurricular activities more, because the sports classes are only taken by students so that they can play football. They are only entertaining classes without learning or academic goals. This also applies to art class, which is only for painting. There are no learning skills acquired by the students, and there is no organised interaction between the students” (ST3).

Similarly, the vast majority of the DHH students considered these classes as ‘fun’ classes, with no academic skills required. An example being:

“We only play in the sport class and paint in art class” (DS2).

“They are very easy classes; there’s no teaching or requirements” (HHS3).

During the various visits to the Deaf Student School number (1) coded (DSC1), number (2) coded (DSC2), the HH Student School number (1) coded (HHSC1), and number (2) (HHSC2), it was evident that DHH mainstream schools incorporated DHH students with hearing peers in classes for art and sport. There were particular rooms for art in all schools and students came to these from both general and special education. On the board, there was a ready-made painting or picture for the student to paint. However, it was observed that DHH students were marginalised as they sat at a special table to paint, with few interactions with hearing peers. The teacher did not explain or move from his desk. In the observation of the sports class, it was noticed that DHH students with hearing peers were playing football, together or separately, all the time with few interventions from the sports teacher. It was said that:

“I do not know how to deal with Deaf students because I am not a specialist in special education” (the sports’ teacher in DSC1).

An implication of the above was discussed more in Section 4.7.3, namely that professional training can influence societal values and attitudes, so regular teachers might lack training and knowledge in disability issues, which in turn affects their behaviour and attitudes. Moreover, integrative programmes imply the need for specialist teachers' interventions most of the school day; however, inclusion implies good teaching for all (see Table 4.3 in Section 4.5).

For the HH students only, there were more classroom activities such as **Arabic and mathematics** classes in which HH students sat with hearing peers in regular classrooms. However, this experience of mainstreaming did not happen for all HH all the time. It occurred exclusively when the specialist teacher of the special classroom nominated one of the HH students who appeared to face fewer challenges in regular classrooms and no longer needed special education services. In this experience, HH students were placed in a regular classroom with a general teacher in the classes of Arabic and mathematics, for two months or one semester as an experiment to assess his readiness for full-time placement. In cases where the student showed that he did not need more special services, he would be sent to a neighbouring school in the next semester (but without any special services provided). If the student showed that he still needed any services, he will be returned to the special classes. To clarify, this experience was evident as specialist teacher number 12 (ST12) stated:

“Throughout the semester, we put HH students in Arabic and maths classes, to be fully mainstreamed with general education, and send them later to their neighbourhood school. However, when the student is sent to such schools there are no services there. The HH student who still needs our services will stay with us here” (ST12).

The rest of the academic **classroom activities** are provided for DHH students in **special classrooms** in mainstream schools. This includes subjects such as Arabic,

mathematics, science, Islamic religion, and English. This was evident from observation, and was also illustrated by two specialist teachers, who stated:

“There is no integration into the rest of the academic subjects. All students are taken into special classrooms with specialist teachers and DHH peers” (ST1).

ST4 added:

“I hope that the MoE gives us at least a chance to put DHH students in at least one classroom activity that requires academic practices which do not exist in art or sports classes”.

This suggests that DHH students have not been included most of the time with hearing peers; the majority of subjects are given by specialist teachers inside the special classrooms.

Inside the special classrooms of DHH students and specialist teachers, however, it was observed during visits to the four mainstream schools that, during classroom activities undertaken here by DHH students, there was better care for DHH students. It was observed that DHH students received teaching methods which it could be argued better suited their needs; there were curricula followed by teachers and DHH students regularly; good follow up, and greater chances of learning; a better use of visual and hearing learning tools; all SEN were met, and the special classrooms were prepared appropriately as mostly an excellent educational environment for students with hearing loss regarding sound insulation and lighting (related more to what was discussed in Chapter 2). This also could be attributed to what was discussed in section 4.7.1 that material resources are important in creating a successful educational environment. These resources also are important within a CoP as a means to facilitate practice as a source of learning (see Section 5.3).

7.2.4 Extracurricular Activities

Experiences with extracurricular activities were observed and mentioned generally by both teachers and students in mainstream schools. Unlike the classroom activities, a big portion of which were taken in special classes, all the extracurricular activities, regardless of their types, were taken with hearing peers in mainstream school. This included social, athletic, and enrichment activities from the beginning to the end of the school day, as evidenced by informants who reported that:

“We integrate our students in all extracurricular activities inside and outside the school” (ST8).

HHS4 added:

“I do not see hearing peers in our special classes, but I meet them everywhere in this school”.

As the school day was divided by time, the extracurricular activities, as mentioned by participants and observed, could be divided into *scheduled* and *non-scheduled* activities. The scheduled extracurricular activities were activities that occurred every day at the same time regularly. For example, in early morning, DHH students were integrated with hearing peers in the **morning assembly** and line-ups, which is made apparent when one participant commented:

“In the morning line-up, DHH students do the morning exercises with general school students” (ST10).

Moreover, some teachers mentioned the **lunch break** as a bigger opportunity to communicate and integrate with hearing peers, as he put it:

“DHH students are free in lunch break to sit and play with hearing peers, and some of them share in selling breakfast to all school students” (ST6).

During the visit to DSC1, it was observed that there was a football league for the classrooms in the lunch break, but Deaf students participated in a special team for the Deaf. Lastly, it was observed in all DHH mainstream schools that at the end of school

day, all the students, DHH students included, were being sent to the domestic mosque and did noon **prayers** collectively.

This reinforces the argument that Islamic principles are not contradicted by those of inclusion (see Section 4.3) where the practice of prayers includes all members of the social groups within an inclusive Islamic community. Nevertheless, the educational practice in Saudi educational policy may not do so. This reminds us of the famous story of the Prophet Mohammed when he encouraged his blind friend to practice all prayers in the mosque believing in his ability to do as a part of an inclusive community (see Story of Abdullah bin um Makzoum in Section 4.3; also related to Sections 7.4.4 & 7.5, and more discussed in Section 9.2.2).

The non-scheduled extracurricular activities included different events that happened at an irregular time. DHH students were integrated with hearing peers in **all parties, festivals, and edification-type programmes**, both inside and outside of school. This was illustrated by two of the specialist teachers:

“For each activity that occurs inside the school, our students take part, such as during the national day, teacher day, open days, and different happy occasions” (ST7).

ST9 added:

“In our program, we have weekly outside trips to visit a lot of places with awareness goals, so we get to benefit from the buses of special education and take DHH and hearing students with their teachers to visit these places”.

Moreover, inside the schools, DHH students were integrated with hearing peers in **the activity and resource rooms**, two well-equipped classrooms with all hearing and visual tools prepared for activities in pupils’ spare time and when necessary (see Section 2.6.1). It was observed that the activity and resource rooms included resources that raised interaction between DHH students and hearing peers in leisure time, and increased collaboration between specialist teachers and other teachers who

were responsible for DHH students. The regular teachers of activity and resource rooms receive a 20 per cent bonus in their salaries as a financial encouragement due to their functions with DHH students. ST5 described this experience:

“In the learning resource room, our students sit with general education students to see educational films. It has a library with books. We also have a teacher of activities with a room which is also prepared for different activities that our students share with general students for informal learning. These teachers fight to be appointed in schools that have students with SEN because of the 20 per cent higher special education salary”.

7.2.5 Services

This sub-theme is dependent on participants' views and emerged from interview and observation data. Five broad issues emerged from the analysis of this sub-theme, including: identification of these services as they were mentioned, eligibility, places where they were provided, time, and collaboration with/between service providers.

The first and most frequently **mentioned service** was speech and language therapy. Specialist teachers implemented training for this:

“We have a speech training teacher, who's responsible for language disorders” (ST8).

Another reported service was the psychological service, which was considered to be essential, as was indicated:

“The psychologist withdraws DHH students from the classroom” (ST5).

The next service was the hearing services, in which DHH students needed to go to the Hearing and Speech Centre for audio measurements, audio equipment mouldings and hearing aids (ST1 & DSP1).

Moreover, the services of transportation were presented in these schools as ST4 added that:

“As the vast majority of DHH students come from far away neighbourhoods, we have buses and a transportation service”.

Comments related to services of educational counsel were not particularly prominent in the interview data. It was, however, noticed during observation in HHSC2 and documentary analyses (Document of Organizing Special Education 2016) that DHH students also received counselling services by the local education counsel, who were encouraged by a greater financial bonus to do functions relating to guiding of DHH students in mainstream schools (Ministry of Education of Saudi Arabia, 2019) (detailed more in Chapter 2).

A common view amongst responses (SP2, SP5 & ST6) was also the importance of translation by sign language as a service provided to Deaf students by the specialist teachers outside and inside the special classrooms. This was perceived by ST2:

“In the extracurricular activities, there is the service of sign language provided by the specialist teacher.... In the special classroom, this service is provided as well”.

Furthermore, there were financial services with some advantages to support DHH students and their families in cases where the students belonged to DHH mainstream schools. This included salary increases and discounts in several government services, such as airlines and other modes of transportation. This was made apparent when one of the HH students' parents stated:

“HH children or disabled children generally enjoy different benefits in special education classrooms, such as the monthly funding from the MoE ... my son enjoys other advantages from the government and other ministries, such as the Ministry of Social Affairs, which will give him annual funding and other advantages until he becomes an adult and gets a job” (HHSP2).

Another reported issue under this sub-theme was the **eligibility** of receiving these services. As identified later (see Section 7.4), there were multiple options for DHH students in becoming educated. However, the services mentioned above were

provided only for students belonging to special classrooms/schools for DHH students. In case of full mainstreaming in the same school or the neighbouring school (particularly for HH students), these services were not provided, even during the assessment period (explained further in Section 7.4.4). This was explained by one specialist teachers:

“Previously, we put 3 HH students upstairs in general education. We only watched to see whether a student could validly be fully integrated into the general school forever, to be converted utterly to the regular classroom under the responsibility of a general teacher, without providing any services or advantages during the assessment period and afterwards.” (ST10).

This issue was echoed by another parent, who commented:

“I have refused to relocate my son to general education because these services and advantages will be stopped as soon as he has transferred” (HHSP2).

What this father said has an implication for the progress of inclusive education. He appears reluctant to consider full inclusion because he will lose financial advantages. His perspective is likely associated with the view of the medical model (see Section 5.5.1, Table 5.3) that he should be compensated for having a disabled son. This father focuses heavily on disability and looking to money as financial provision rather than educational provision. However, this father may change his viewpoint when the same financial are guaranteed to be provided in inclusive provision (see forward in Sections 7.4.4 & 7.5.3).

The participants, on the whole, reported that there were no **services provided** in the regular or special classroom, except sign language inside special classrooms, by a specialist teacher. These services were mostly offered in particular places, and sometimes students were taken outside the school to receive some services. For example, one interviewee indicated:

“Deaf students are not receiving any services or support while they are sitting in the regular classroom nor in the special classrooms, as all these services are mostly provided in special segregated rooms. The only thing provided is translation by sign language for the Deaf in special classrooms by a specialist teacher” (ST2).

One specialist teacher who works as a speech-language teacher reported that:

“in the speech-language lessons, I have to withdraw the students from the classroom to a separate room, because our function is based on individual training, and is based on some special instruments for speech training. The room requires good sound insulation, which is not available in all classrooms” (ST5).

As suggested also that:

“withdrawing DHH students outside the classrooms carries both an advantage and disadvantage...the advantage lies in changing a classroom which has become boring...the disadvantage is that the student may feel loneliness in this separate place” (ST6).

However, when DHH students were asked about their preferred place, they differed in their views. Two DHH students (DS1 & HHS3) felt that it would be better to be in a separate room, considering the sound issues. HHS3 has described it as ‘quieter’. While the majority (DS2 & DS3 & DS4 & HHS1 & HHS2 & HHS4) preferred to take these services inside the classroom, considering the dullness of a segregated room and the benefits of collective learning, as reported by HHS1;

“I like it to be here with my friends, it is so boring there, and could not practice the pronunciation with each other”.

Moreover, concerns were expressed about the **time of providing these services**. It was apparent that service providers did not have a regular or scheduled time to withdraw DHH students. The students were available to be taken out at any time during the school day, whether they were sitting in regular or special classrooms. This was made apparent when respondents stated that:

“A psychologist withdraws students in times of need only ... and the speech-language teacher is supposed to schedule his training time to coincide with the reading class only” (ST7).

An HH student also commented in this issue:

“In sports class, I run away from the speech-language teacher” (HHS2).

Hearing services are provided once a year at the beginning of the school year or in the event of losing a hearing aid (ST6 & DSP1).

The extent of **service providers’ collaboration** was seen as an essential issue in the experience of DHH students in mainstream schools. The specialist teachers complained about the lack of coordination with service providers. It was demonstrated:

“There is no kind of collaboration or even coordination between services providers. Everyone works alone, and there is no assessment regarding their performances. One does not know about the work of the other because of the absence of the coordination between them and us” (ST3).

Other responses to this matter included:

“The speech trainer works individually with DHH students and does not ask us about the part of speech that needs to be worked on.... The psychologist also does not inform us about the behaviours that have been addressed on the student” (ST11).

The specialist teachers carried the main responsibility for the students and were central to the work in DHH mainstream schools. This was not particularly prominent in the interview data as much as observed during visits to these schools. It was frequently observed that all service providers were not perfect at sign language or other communicational approaches to DHH students (see Chapter 3). They always needed the services of specialist teachers in this matter. Experience of DHH students with services could be summarised in that they are provided in separate places away from both regular and special classrooms. This is more compatible with the characteristics of integrative provision as discussed in Section 4.4. DHH students showed some

sense of belonging to their class or group, but this was disrupted by the requirement to practice and receive services outside their classes which were often also mediated by the specialist teacher, not the class teacher. Their sense of belonging to their class would be a strong indicator of the importance of the need to develop familiarity in the community, educational settings and the practice in order to achieve learning. This familiarity could perhaps be better experienced by DHH students in different places such as their neighbourhoods (see forward Sections 7.4.4 & 7.5).

7.2.6 Curriculum and Assessment

The specialist teachers and DHH students alike drew attention to curriculum and assessment issues as an important matter in their current experiences. Some issues were identified in teachers' improvisation in terms of adapting the national curriculum and assessment approaches.

All the specialist teachers came to the conclusion that the curriculum and assessments given to DHH students in mainstream schools were the same **national curriculum and assessments** given to hearing peers in general education. DHH students received the same national schoolbooks as other students. They were required to master the same national minimum skills. This was illustrated by the comments:

"The curriculum is the national curriculum" (ST1)

"The assessment is the same assessment in general education and includes the same minimum skills to success. We are required to apply these skills" (ST12).

In all cases, the informants reported that the national curriculum and assessments were challenging if they were to be applied without modification. These **difficulties** varied, depending on the views of students. For example, the Deaf student DS3 complained about the abundance and difficulty of content:

“The curriculum is hard, and I quickly forget much of it”.

However, other students such as DS2, DS4, HHS2, HHS3 & HHS4 argued that teaching and communicational strategies used in the classrooms were the reason for the difficulties with the national curriculum and assessments. Some specialist teachers argued that the pronunciation of DHH students for some of the verbal elements was the problem. Namely:

“There are terms and articulations that are hard on DHH students” (ST7).

“The difficulty lies in their voices, such as when they try reading text from the Quran or other material in reading class” (ST4).

The third issue that emerged from the analysis was the **improvisation of specialist teachers** in some issues. When they were asked whether the national curriculum and assessments had been modified for DHH students, over three quarters of the teachers acknowledged that they had, although there were a few who did not want to mention this (maybe to avoid accountability, as this modification is not explicitly authorised by the MoE). However, the rest of teachers argued that the decision-makers in the MoE had no more knowledge or understanding regarding DHH students than specialist teachers. Talking about this issue, an interviewee said:

“The matter of modification on the national curriculum and assessment is up to the teacher, who can decide whether to help or not. The vast majority of teachers know that DHH students need this modification, so if we literally applied what the MoE decided, not one of the DHH students would pass. Therefore, yes, we as specialist teachers act without authorization sometimes, but there is no law preventing such adjustments” (ST9).

Another interviewee alluded to a notion of a gap between the MoE and scientific work as a justification for this improvisation. He said:

“We provide the minimum skills by giving DHH students what they need, and we leave skills that are not important for them. This is because there is a gap between what we learned in universities and what we can apply from

the MoE. We follow the advice of faculties of educational colleges who are more specialised in DHH education; they have advised us to adjust the national curriculum and assessment so that it is more familiar to DHH students” (ST6).

As discussed, modification of the national curriculum and assessments was mentioned frequently. This provided evidence that **adaptation of the national curriculum and assessments** was an important issue that emerged from the analysis of data associated with the experience of DHH students in mainstream schools. Although specialist teachers varied in their ways of adapting the national curriculum and assessment, they acknowledged that the core of these lessons was preserved. Examples of specialist teachers using their personal resources to shape their work in this CoP include mentions by some teachers of practices of deletions, such as “*some exercises*” (ST2), “*voice chants*” (ST1), “*recitation and repetition*” (ST4), and “*reading texts in a loud voice*” (ST7). Some teachers considered this to be a process of summarising ideas (ST8). Another reported practice of modification was in the form of additions to the national curriculum – not so much an addition of content but rather a process of clarification. To be specific, he said:

“We added pictures and sign language to fit DHH students” (ST6).

The national assessment also had ways of being adapted. One informant reported that they cared about the minimum skills that DHH students could pass more than the harder skills that were impossible for DHH students to perfect (ST10). Another difference was how the assessment was conducted. That is, as ST9 stated:

“If a DHH student has achieved 50% of the minimum skill, he will pass, although we are required to achieve 100%”.

This could be an implication that specialist teachers and DHH students are on the edge of the circle of decision-making. This circle includes all members of a community

practising DHH education. The voice of teachers and DHH students need to be brought into the centre of this circle to close the gap between them and decision-makers. To align with countries having different educational options, one of them is inclusion, we should review, for example, the experience of the UK context who empowered teachers in schools to do this modification as reasonable adjustments for students with SEN (discussed more forward in Section 9.2.1).

To sum up, the theme of structures and processes are associated mostly with practices and school environments in current experience in mainstream schools. Those aspects described in chapter four particularly the Table (4.3) (Bendová and Fialová, 2015) and Table (4.4) (Warnock, 1978) (see appendix A) where the differences between inclusion and integration identified. By matching the issues illustrated above, it was mostly certain that the current experience in mainstream schools likely represents the practice and ethos of integration rather than inclusion. The community practising education for DHH students has, for the most part, a gap between its members, particularly between individuals involved in the field of practice in mainstream schools (specialist teachers and DHH students) and those individuals involved in decision-making (non-specialist supervisors and administrations). What the specialist teachers are doing in terms of exercising agency to try to make the structures and processes work for the DHH children is important, although the hierarchical system of the Saudi educational policy, with its associated power imbalance, prevents them from practising such modifications openly (see forward Section 9.2.1).

7.3 Relational Factors to the Current Experiences of DHH Students in Mainstream Schools

In relation to the current experiences of DHH students in mainstream, data were coded to present aspects of relational factors in mainstream schools. Participants' comments covered a wide range of domains and after the initial analysis, these domains were classified and organized into three main sub-themes: interaction, teaching and learning strategies, and labelling this experience in mainstream schools. (See Appendix H: Table 7.1).

7.3.1 Interaction

As might be expected, responses obtained from specialist teachers and DHH students regarding their experiences in mainstream schools revealed that the majority of interviewees mentioned 'interaction with DHH students' as an essential aspect of their current experience. Issues raised in participants' responses regarding interaction with DHH students were of four general types: language and communication, initiatives of the interaction, preserving interaction, and lack of interaction.

A number of issues were identified regarding **language and communication** (under the 'interaction' sub-theme) with DHH students in the mainstream schools. It was apparent that Deaf students use Arabic sign language as an essential language for interaction. Although Deaf students are professional users of sign language, they are often facing difficulties in using the Arabic language, whether spoken or written, which is entirely different from Arabic sign language. For example, one interviewee said:

“Deaf students face language difficulties, as their language [sign language] is entirely different from the language of the community, and they therefore require the continuous presence of translators in all classes” (ST2).

Furthermore, Deaf students have ways of communicating with hearing peers and teachers, but these ways are in the form of descriptive signs exclusively, as two Deaf students commented:

“Hearing individuals do not have the same professional descriptive signs that we use between us; they have easy descriptive signs to the nouns and verbs which we can understand easily” (DS1).

“The signs of hearing people are straightforward, and I can understand them if they use them with me, but these signs differ from the signs we use between us as Deaf” (DS2).

Another reported issue was that the language that HH students used to interact was the same Arabic language that the larger community used. Namely:

“HH students use the domestic Arabic language with some difficulties, but they are considered to have a good hearing when they use hearing aids” (ST2).

However, it was apparent that HH students faced challenges in spoken language in terms of communicating with hearing individuals, as one HH student expressed it:

“I understand them, but they do not understand me because I can’t pronounce all the letters well” (HHS2).

Therefore, there were some suggestions that DHH students faced linguistic difficulties owing to deficiencies of the language enrichment programmes (such as early intervention programmes associated with approaches and communicational philosophies discussed in Chapter 3). It is important to be clear that the speech component was different from the language component. This was illustrated by specialist teacher’s 8 as he comments:

“We have a speech-language specialist who is responsible for language disorders as well, but the majority of his function is concentrated on the speech part, without any interest in the linguistic outcome ... the audio-visual and verbal approaches and other linguistic programmes for DHH students are lacking in our mainstream schools, and the continual absence of these programmes will continue to cause linguistic problems for DHH students” (ST8).

Another issue relating to the interaction experience of DHH students in mainstream schools was **initiating interactions**. This matter emerged from interviews and observation. The majority of specialist teachers mentioned that Deaf students have fewer initiations that allow them to interact with hearing students. This could be owing to the fact that Deaf students frequently do not understand, or ignore, these initiations. By way of illustration, one interviewee argued:

“Deaf students like interacting with Deaf individuals who understand them and dislike interacting with hearing peers, so they often ignore interaction initiatives” (ST10).

During the various visits of Deaf students' schools DSC1 and DSC2, it was observed that hearing students generally made more attempts to communicate with Deaf students than Deaf students made with them. It was different with HH students, who initiated more effort than their hearing peers and the Deaf. However, these initiatives were often ignored by their hearing peers, owing to the speech-language challenges of HH students. This was illustrated by comments from a specialist teacher and HH student, who said:

“HH students initiate more, but their initiatives are not understood by their hearing peers, which leads to HH students being neglected and segregated” (ST12).

“I always begin the conversation, but some of them are not good and sometimes drive me out” (HHS4).

Moreover, what was striking about the interaction of DHH students in mainstream schools was the difficulty in **maintaining the interaction** between DHH students and hearing peers. There was a lack of longevity in this interaction, possibly (as mentioned in the last issue) owing to difficulties in the communication and in understanding one another. Somewhat faced challenges with Deaf students and HH students in terms of the Arabic language, mainly the spoken part, which played an important role in deficiencies interaction. This was illustrated by one of specialist teachers, who stated:

“Mostly, the communication between DHH students and hearing peers does not last long. Once the Deaf student understands the corresponding student, the conversation will end because the two find difficulty in understanding each other. Much of the communication is by a single word or sign, or by one simple sentence containing one meaning” (ST8).

However, this matter sometimes descended into taunting HH students. It was evident that HH students understood their hearing peers, but this understanding was not mutual. This was confirmed by all HH students, like:

“I understand whatever they tell me, but they get nervous quickly if they do not understand me and tell me ‘Get out! We do not understand you!’ sometimes they’ve laughed at me and mocked me” (HHS2).

“Sometimes they hit” (HHST4).

Owing to the above, it was observed that interaction was limited in all mainstream schools. It was also noted that such avoidance was more related to Deaf students, although it was prevalent amongst hearing peers in HH students’ mainstream schools.

The above two issues led to a **lack of interaction** between DHH students and hearing peers. This matter did not emerge from the data in interviews so much as observations in all mainstream schools. DHH students’ isolation was obvious. In all activities, whether curricular or extracurricular, DHH students were gathering with each other only. In art class, they met at one table and painted together. In other extracurricular activities they sat with each other, and even in the lunch break they gathered in one place and ate or played with each other only. Moreover, particularly for the Deaf students, it was observed that they only interacted with those who knew them. One reason for this isolation, as mentioned by all DHH students, was because they felt they were ‘strange’ as students in these schools. The mainstream schools were not neighbourhood schools for the vast majority of DHH students (see Section 7.2.1). As a result, DHH students did not know their hearing peers outside of school, resulting in little interaction between them, as evidenced by DHH students themselves:

“We do not interact with them because we do not know them outside the school and there is no previous familiarity” (DS4).

“This is far from my home, and I do not know anyone outside our special classrooms. They do not play with us” (HHS3).

“I do not play with them because I do not know them. I live far away from this school” (HHS1).

7.3.2 Teaching and Learning Strategies and the Current Training

Not surprisingly, a large number of issues relating to the current experience of students with hearing loss were associated with teaching and learning strategies in mainstream schools. The data obtained from the interviews and observations contributed to documenting this experience in general and special education in mainstream schools where DHH students were placed. Issues revealed under this sub-theme include teaching and learning methods, teaching and learning means, and enhancement and encouragement strategies for DHH students in mainstream schools.

The use of some **teaching and learning methods** were observed and also mentioned by participants as highly important. In the special classrooms for DHH students, the situation was more professional, as the specialist teachers were experts in providing services for DHH students. The teaching and learning methods such as collective or cooperative learning was one approach used in special classrooms. The individual or intentional teaching and learning approaches are also important. These methods were used interchangeably in special classrooms to meet the individual needs and differences of DHH students. Specialist teachers mentioned this, and these characteristics are summarized in an excerpt taken from one of them:

“Teaching methods in our classes are based on both collective methods and individual methods, but the important thing is the diversification created by using them. The first aim is to get students to understand the content of the

lesson and the second is to make sure that DHH students have mastered the skills” (ST4).

In school DSC1, one class for Deaf students in the fourth level was observed, and it was noted that the teacher used a teaching method based on a way of starting from all to part to all. This method could be used separately or sequentially, as this teacher mentioned. Furthermore, there were teaching and learning strategies based on audio-visual stimuli. To explain further:

“Initiation and declamation alone cannot be used with DHH students; we have to use methods that depend on visual means, pictures, and projectors rather than indoctrination only” (ST7).

“Teaching methods based on declamation is useless with hearing students, we cannot use it with DHH students” (ST5).

DHH students attended the teaching and learning methods used in general classrooms as a part of mainstreaming. It was observed that general teachers depend on the teaching methods that are based on the initiation and declamation methods. The art teacher in HHSC2 class, where HH students were placed, was observed. He talked all of the time, and there was no feedback for HH students. The art teacher in DSC2 did not move from his table or use any teaching method to explain to Deaf students how to paint. There was no obvious use of any teaching methods that depended on collective or individual strategies or even the methods based on using the visual stimuli that existed in special classrooms. A possible explanation for this might be that, as also observed, it was the result of having a large number of students in one classroom in general education. Therefore, general teachers possibly could not find the time to use the strategies needed. This was also evident as mentioned by two specialist teachers:

“General teachers often have long speeches in their lessons” (ST5).

“Speech could not be used only with students with hearing loss” (ST7).

Similarly, one of the HH students who refused to continue in regular classrooms and has returned to special education for this reason, said:

“I don’t want to go to him. I want a teacher who does not treat me as a hearing student. There is no feedback in the lessons.” (HHS2).

The analysis of the data has also revealed the issue of **learning and teaching means** used in the mainstream schools attended by DHH students. It has also been evident from the notes from the observations during field study that all special classrooms are well equipped with these means. Moreover, ST3 stated:

“A specialist teacher could not enter his class without teaching tools for each lesson for DHH students”.

There could, however, be a deficiency in the use of these tools in general education, as one of the HH students who experienced sitting in a regular classroom mentioned:

“Here [special classrooms] is better. If I am going to be upstairs [regular classrooms] I wish they would put the same learning and teaching tools there [special classrooms]” (HHS1).

HHS2 confirmed also this:

“The regular classroom is big, and there are no tools”.

This leads to the question of what those tools were. Specialist teachers and students stressed the importance of utilisation of visual tools with DHH students:

“We depend in our work on visual stimuli such as pictures, projectors” (ST7), *“computers”* (HHS1), *“wall panels”* (HHS4) and *“samples”* (DS3).

There was also more emphasis on the role of writing as a means of understanding and following up on the lessons. This was illustrated by DHH students:

“We understand the classes that use writing more than speech” (HHS3)

“I prefer writing everything on the whiteboard or using the computer to write or at least bringing the lessons written on posters” (HHS4).

“My success depends on the writing in my classes” (DS1).

No less importance is given to the hearing means to compensate for hearing loss or at least to create a quiet environment. During several visits to mainstream schools, it was observed that DHH students wore hearing aids throughout the school day, including hearing devices for students with a cochlear implant. Teachers were using FM in lessons, and a carpet was furnished for all special classrooms as a means of sound insulation. However, although DHH students sat in regular classrooms wearing their hearing aids, sound annoyance was still present, owing to a lack of sound insulation. A HH student also suggested this:

“I want the regular teacher to control the bother in his class” (HHS2).

The matter of teaching and learning tools is summarised by one of the HH students’ parents, who refused to allow his son to be integrated into full time general education.

He stated:

“As you know, there are different technological learning means in special classrooms which do not exist in general education. My son has been used to such great standards from an early age. I am afraid to put him there [regular classrooms], as it could cause a psychological shock or failure” (HHSP2).

The enhancement and encouragement strategies were a vital issue associated with teaching and learning strategies with DHH students in mainstream schools. However, these means were found primarily in special classrooms rather than in general education, as the majority of DHH students mentioned. It is evident that DHH students receive moral encouragement in special classrooms as acknowledged by a student:

“Teacher (S...), who teaches us mathematics, rewards us if we solve the exercises successfully and corrects us if there are mistakes. I feel he is interested in us” (HHS1).

It was observed that in special education classrooms there were reinforcement plates in the form of adding stars or writing the name of students who did well. However, HHS4 complained about this in general education and said:

“I want a star if I answer well!”

Moreover, the specialist teachers recorded in the homework notes on each task what had been achieved or needed improving. They also prepared weekly plans to be sent to the families in advance. This was illustrated by a student coded HHS2, who commented:

“The general teacher does not write in our task notes, he asks us to write by ourselves what he recorded in the whiteboard, and I am used to this being written by my teacher [specialist teachers]”.

One HH student parent (HHSP2) praised the attention and **follow-up** behaviour of specialist teachers and highlighted the good reception and the important advice obtained about the multiple chances of assessing DHH students. He added:

“Regarding the interest in the students, I found this to exist more in special classrooms where there are a small number of students” (HHSP2).

The teacher coded ST8 also mentioned the vital role of pursuing the student in mastering skills. He said:

“DHH students need individual teaching, as it allows us to follow improvements in their skills” (ST8).

Unfortunately, there appeared to be a kind of punishment in general education as a means of controlling the class. This could be due to the large number of students. It was designed to preserve discipline, but possibly weakened the students' enthusiasm for learning. This also was confirmed by two of students, who reported:

“The regular classroom teacher makes me nervous. If I do not answer quickly, he punishes me” (HHS3)

“If I talk with my friend, I spend the rest of the class time standing up near the wall” (HHS4).

Another relevant finding relates to current training for specialist and general teachers. It was evident that there was a **lack of training** for accommodating DHH students in mainstream schools. The ongoing training was limited to pre-service training for

specialist teachers in universities and teacher colleges, as evidenced by ST6, for example:

“We as specialists have studied in universities by specialist faculty members”.

General teachers who wish to teach DHH students must obtain a diploma in DHH education in these universities. However, this diploma is not free; tuition needs to be paid for by the general teachers. Moreover, the general teachers obtaining this diploma will be transferred and become special education teachers. They will then belong to special education programmes and their relationship with general education will end. This diploma is specialised in DHH education and contains most of subjects related to DHH students for a year, along with practice in the field for one semester, so this diploma along with the experience of practice could increase successfully knowledge about DHH pedagogy, if teachers with diploma were to stay in mainstream education (see Section 2.6.6). This was reported when a teacher said:

“I had been working as a maths teacher in general education until I got my diploma in DHH education at King Saud University. They then transferred me to work on this program” (ST3).

Pre-service training for general teachers in academic schools also lacked SEN classes. General teachers from all majors therefore came to the field with little knowledge of DHH students. To clarify:

“What is required from the academic schools is for them to reconsider what they teach to general teachers. They need to add classes about DHH students” (ST5).

However, some specialist teachers criticised the pre-service training, commenting:

“There is a gap between what is learned in universities and what is applied” (ST6).

ST12 was more direct and asserted that:

“The pre-service training mostly talked in a language that is not applicable, and most [of these classes] are theoretical and just talk about theories. The field is different”.

He added:

“If I had graduated ten years ago, there would have been new, important research and studies that I would have missed” (ST12).

He was also referring to the absence of professional in-service development and its essential role. Another important finding was the perception that there is a total absence of in-service training concerning DHH students for general teachers and a clear lack for specialist teachers from the educational training centres of MoE, as an example;

“One of the essential challenges in Saudi education is the absence of the development and training for all, whether for teachers, administrations, or all school staff” (ST12).

However, specialist teachers could pay for rare, in-service training from special social centres interested in hearing loss. To explain further:

“If the specialist teacher wishes, he can pay money and attend courses at the Saudi Society for Hearing Impairment” (ST9).

In school DSC2, the annual schedule of the educational training centre for the 2017-2018 school year was checked, and it was found that the educational training centre did not include any training classes for specialist or general teachers in DHH education or for SEN in their schedule. Training is a vital issue and will be further discussed in the theme of the barriers and support required for inclusion (Chapter 8).

To sum up, specialist teachers are practising teaching and learning strategies with DHH students. These strategies are based on using hearing and visual means, as well as collective and individual. Other teaching and learning strategies appeared such as moving from parts to the whole and vice versa, and those based in communicational philosophies (teaching and learning for DHH students are detailed in Chapters 2, 3,

5). However, although there is a lack of in-service training, specialist teachers may do well in developing themselves in this matter. It is worth noting where expertise lies and how it is distributed between specialist teachers and across the mainstream schools context. Currently there is little by way of informal professional development involving negotiation of meaning and continuing discourses between members of the community practising teaching and learning strategies with DHH students as a source of learning and skills. This CoP has a wealth of experiences, ways, and means to deal with crises and emergencies, but this knowledge is not reaching the decision-making centre of provision (see Section 5.3).

7.3.3 Labelling the Current Experience of DHH Students in Mainstream Schools

The last sub-theme in the current experience of DHH students in mainstream schools concerns specialist teachers' preferences when asked to categorise this educational experience. Twelve specialist teachers who were well educated in the subject of DHH education and educational options participated in answering this question. They also indicated why they had positioned themselves in a certain way in what seems to be a consensus.

In all cases, there was a sense amongst specialist teachers that the current experience could not be named as 'inclusive education'. This view stemmed from their well-founded knowledge regarding the educational options and appropriate pre-service training. This also extended to their understanding regarding the differences between inclusion and integration (more details of which appear in Section 8.2). This was made apparent when, for example, one interviewee said:

"We do not have an inclusive education" (ST11).

Five specialist teachers showed a strong belief in avoiding confusion, preferring to label the current experience of DHH students in mainstream schools as “**integration**”. They gave different justifications for this. Specialist teachers ST5 and ST7 mentioned that there is less segregation in comparison with special schools, whereas ST4, ST8, and ST9 referred to the DHH students’ contact with hearing peers in all the extracurricular activities and some of the classroom activities.

However, four of the specialist teachers preferred to label the current experience as “**the Special Classrooms**”. This exemplified when ST1 rejected the term “integration”, and said:

“This concept was taken from the external experiences and from Western countries”.

He added:

“The concept of integration was not applied correctly. Therefore, I would label it as ‘special classrooms’ programmes” (ST1).

The teachers ST2, ST10, and ST12 also named the current experience as ‘special classrooms’ because of the lack of educational interaction with hearing peers and the clear segregation of these classrooms as a special unit inside the general school.

Three of the specialist teachers also mentioned “**The Least Restrictive Environments**” as a name for the current experience in mainstream schools. This concept was suggested because the current experience “*is not complete isolation or integration*” (ST6) “*compared to the full segregation in the special schools*” (ST3), so “*it is the least restrictive environment since we have not achieved inclusive education yet*” (ST11).

Thus, it is evident that there was frequently unwillingness by specialist teachers to name the current experience in mainstream schools for DHH students as inclusion.

Their different perspectives led them to name the mainstreaming experience by other related phrases rather than inclusion. It could be a result of their own beliefs of the modernity of inclusion as a newer concept, as well as their own knowledge of the differences between integration and inclusion in theory and practice (see Section 4.5). Their CoP involves negotiation of meanings derived from their experiences and close engagement in the field of DHH provision. In this community, expertise is distributed between them and across their schools' context.

This group of specialist teachers used other concepts interchangeably with the term 'integration', such as 'special classrooms' and 'the least restrictive environment'. It is almost certain that the current experience could most appropriately be named as 'integration', as features of the current practice in mainstream schools match those of the educational option of 'integration', as outlined in the literature review (Section 4.5). As a consequence of this, in the chapters of reporting the findings, the term 'integration' will be used as representative of the current experience of DHH students in mainstream schools, as evidenced by interviewees' comments and research observations in sections 7.2 & 7.3 above.

7.4 Choosing Educational Options for DHH Students in Saudi Arabia

This part is devoted to presenting the evidence that emerged and addressing the experiences of DHH students and specialists in four mainstream schools in Riyadh, Saudi Arabia and what are understood by the term 'inclusive education'. In addition to the key issues presented under the first and second themes, concerning the current experience of DHH students in mainstream schools, there are other underlying matters which emerged from the data analysis. These aspects include the fact that participants raised issues associated with the theme of the educational options. Therefore, a group

of DHH students' parents were included to extend this important theme, and also provide views that relate to other themes. This section will cover each of educational options identified as central to decisions about educating DHH students in the current experience (See Appendix I: Table 7.2).

7.4.1 Decision-Making

Before addressing the educational options for DHH students in the Saudi educational system, the importance of the decision-making process emerged in the data analysis, including, decision makers, affecting factors, and benefits to students.

It seemed from the interviews of DHH students' parents that two players were critical in providing educational options for DHH students. The first one was the Hearing and Speaking Centres (HSC) that the parents must visit. Their decisions centred on deciding where to place the student: in Deaf schools or HH schools. The second **decision maker** is the parent, who has the right to choose between the available educational options for their Deaf or HH children. For example, one interviewee said:

"The first time, the HSC made a hearing test to determine the degree of hearing loss, to decide whether my son was Deaf or HH" (HHSP1).

One parent added:

"I have chosen the integration program for several reasons" (DSP1).

However, although the HSC does not have the right to choose the educational option (special schools or classrooms), they do provide some advice about choosing the least restrictive environments for children. It is the parents, however, who take the final decision, as one Deaf student's parent indicated:

"I asked them about these educational options, and they advised me to avoid segregation as much as possible" (DS2).

Another important issue was **the factors to consider** in taking educational decisions. The first of these factors, as mentioned before, was determining the degree of hearing loss and deciding whether the student was better suited to a Deaf or HH schools (HHSP1). The next factor is associated with the level of segregation. One participant commented:

“I have chosen the special classrooms because it has less isolation”
(DSP2).

The distance to the educational establishment was also a factor, as mentioned by DS1:

“Although they are in East Riyadh, the integration program is nearer than the special institute to my house”.

According to the Document of Organizing Special Education (DoOSE, 2016: 17), there are also considerations for age and multiple disabilities that often accompany hearing loss (Ministry of Education of Saudi Arabia, 2019).

The benefits to students who could be included in these decisions and associated educational options for DHH students is an important issue that emerged from the data analysis. Two of the Deaf students' parents (DS1 & DSP2) mentioned that, because their children were Deaf, they could benefit from services provided in the educational options for Deaf students. HH students could also benefit, as asserted by their parents (HHSP1 & HHSP2), but in the educational options for HH students. Furthermore, the hearing students with speech and language difficulties could also benefit in the educational options for HH students as mentioned by specialist teachers (ST8 & ST12). DHH students and hearing students with speech and language disorders were also mentioned in the Document of Organizing Special Education (DoOSE) in Saudi MoE as children who were eligible for educational options for DHH students (Ministry

of Education of Saudi Arabia, 2019). In the coming sections, I will provide citations from DoOSE that shows who benefits in each educational option.

7.4.2 Special Institutes/Schools

One educational option available for Deaf students is special schools. Two of the Deaf students' parents (DS1 & DSP2) confirmed that this educational place was one of the available educational choices shown to them by the HSC in east Riyadh. This was confirmed by specialist teachers, for example ST2 & ST5, who acknowledged these schools when comparing them with mainstream schools. However, multiple issues emerged from the data analyses, including benefits for students, segregation, sign language, and special education services and advantages.

According to the document of the DoOSE (2016;17), special schools are dedicated only to Deaf students who have *“more than 70 dB in their better ear”* (Ministry of Education of Saudi Arabia, 2019). This document also indicated that Deaf students who have another or multiple disabilities would also benefit from the services provided in these special institutes/schools. Nevertheless, there are other **benefits to students** (namely specialist teachers) of these special schools, as one of the specialist teachers put it:

“We get professional training sometimes in both East and West Al-Amal’s special institutes” (ST3).

This was an explicit reference to the fact that the specialist teachers were also benefits to students from the services provided by the special institutes/schools. However, there are no special institutes/schools, currently, for HH students (having hearing loss 69 dB and less, Mild and Moderate hearing loss), as the MoE has separated their education from Deaf students (having hearing loss 70 dB and more, severe and profound hearing loss) in these special institutes, in accordance with Resolution No.

16/12, issued by The Saudi Consultative Council in 1999. Therefore, special schools are dedicated only to Deaf students. This resolution stated the importance of the expansion of special education programmes to accommodate all categories of students with SEN, particularly HH students (Al-Mousa, 2010).

Segregation was an issue reported in relation to the special institutes, particularly in the interview data. Specialist teachers and two of the Deaf students' parents criticised the special schools for the Deaf because of the segregation from the wider community that Deaf students face there, as reported below:

“The reason why I have put my son here is that I want him to learn from our culture, and I don't want him to remain isolated in the special AL-Amal institutes” (DSP1).

DSP2 added that:

“There will be more isolation from the community”.

It was evident that the official and first language to communicate and interact with Deaf students within the special schools was **sign language**; the use of the Arabic language was rare and only used for academic purposes in the form of reading and written language. This was illustrated by one of the Deaf students' parents, who stated:

“The special classrooms are the best educational environment for the Deaf to be bilingual-bicultural, however, in the institutes; they may not master only the sign language” (DSP2).

An essential aspect of special schools was the opportunity to access **special education services and advantages**. Reviewing the documents of the DoOSE (2016) revealed that the special schools had the same special education services and advantages mentioned above under the sub-theme 'services' (Section 7.2.5). This document also mentions that service providers and specialist teachers were free to

choose the place of work, whether in special or mainstream schools for DHH students (Ministry of Education of Saudi Arabia, 2019).

7.4.3 Integration Programmes

According to data generated from the interviews and documentary analyses, the second available educational option for DHH students was integration programmes. The current experience of DHH students in mainstream schools was called 'integration', based on pieces of evidence mentioned before (see Sections 4.5 & 7.2). However, as the last theme has explained this educational option more deeply, some issues will be mentioned that were not addressed previously regarding integration as an educational choice. These issues encompass benefits to students, two languages and cultures, participation, and special education services and other advantages available in integration programmes.

The benefits to students from the integration programmes as an educational option include, as mentioned in DoOSE (2016;17), Deaf students (was said by DS1 & DSP2) and HH students (HHSP1, HHSP2) who do not have an accompanying disability, except speech and language disorders (Ministry of Education of Saudi Arabia, 2019). However, as observed during the visits to the mainstream schools, these programmes were separated, where Deaf students had special integrative programmes separate from those for the HH students. Furthermore, the integration programmes for HH students also welcomed hearing children with speech and language disorders temporarily, to be moved later to the next educational option, which was the neighbourhood schools (Ministry of Education of Saudi Arabia, 2019).

A common view amongst interviewees was that the Deaf students in the integration programmes should have an appropriate opportunity to learn two languages and

cultures: the Arabic language, sign language, Arabic culture and the culture of the Deaf. Talking about this issue, one of the Deaf students' parents who refused the idea of neighbourhood schools for his Deaf son commented that the integration programmes were *"the best environment for my Deaf son to be bilingual-bicultural"* (DSP2), for in this educational option, Deaf students can find the Arabic and sign languages and cultures. In the integration programmes for the HH students there was only the Arabic language and culture, which the HH students needed to learn from the hearing community. This was illustrated by one of the specialist teachers, who stated:

"The HH students have a weakness in our language and traditions, so they can get the same benefits as their hearing peers in this mainstream school" (ST9).

Another reported issue was that there was less segregation in the integration programmes for DHH students. Three of the specialist teachers called these programmes *"the least restrictive environments"* owing to their belief that there was more participation with hearing peers compared with the situation in the special schools (ST6 & ST3 & ST11). One of the parents added to this point that:

"I have chosen the special classrooms in the mainstream school because the special institutes have more segregation" (DSP2).

Therefore, the vast majority of the responses preferred educational options that have more participation with hearing peers.

The special education services and advantages in the integration programmes was an important issue, but this was explained more in the first theme. However, the document of DoOSE (2016) indicated that the Saudi government supports these services and advantages, allowing the same provision no matter whether the parents have chosen special classrooms or schools (Ministry of Education of Saudi Arabia, 2019).

7.4.4 Neighbourhood Schools

A recurrent sub-theme in the interviews was a sense amongst interviewees that the neighbourhood schools were one of the desired educational options for DHH students, specialist teachers, and parents. However, this choice had some conditions and characteristics that differed from the last two educational choices in terms of benefits and services provided, spoken language and culture, and the participants' willingness towards it.

The group who benefitted most from this educational option were mostly hearing students with simple speech and language difficulties, some of students who had simple hearing loss and, very rarely, students with medium hearing loss. There was no mention in interviews of Deaf students being sent to neighbourhood schools or even to any general schools, whether with services or without. The difference between DHH mainstream schools and general schools is that the first provides special education services and advantages whereas the second do not. However, the benefitting students, mentioned above, who are moved to neighbourhood schools should be those who face fewer interactional or physical challenges, whether with or without hearing aids, such as HH students who have overcome difficulties and benefitted successfully from special education services and no longer need them. Furthermore, those who being sent to the neighbourhood schools should be independent of any needed special education **services**, as this educational option does not provide these advances or services. This can be illustrated in one of the specialist teachers' comments:

“They are later sent to the school near their home, which do not provide specialised services... the successful students with this experience are the students who have less hearing and speaking challenges” (ST12).

One parent added:

“These advantages and services are not provided in neighbourhood schools; they are provided only in the special programmes and institutes of DHH students” (HHSP2).

In several responses, **the spoken Arabic language** and the wider community **culture** were seen as an essential advantage in the interaction of the students with hearing loss and speech-language disorders in neighbourhood schools. One of the HH students’ parents criticized the integration programme, as the HH students may not benefit from the interaction with HH peers:

“I prefer to send my son to a general school all the time where he can find a rich environment in the language, vocabulary, and traditions that are rarely found with his hearing loss peers. They should learn from those who are better than them in pronunciation. Their communication with each other most the time is not beneficial. How will my son learn from one who is equal with him in these skills?” (HHSP1).

This comment is consistent with how learning can occur in a CoP. Learning is situated within communities that practise the knowledge and skills required to produce people who are actively engaged in their community. All participants in this CoP have different skills and needs, and their participation can vary based on their level of practice, as a ‘newcomer’, ‘learner’, or ‘full participant’. They could learn from each other as soon as they begin to participate and engage successfully; after a while newcomer progresses to be learner and then a full participant. This what was this father meant, to learn from the wider community practising Arabic language and culture (see Section 5.3).

All the DHH students and their parents were asked about their views, **willingness**, on the idea of being sent to the neighbourhood school near to their homes, even though

there would be none of the services or advantages of special education. The majority of DHH students and parents welcomed this idea for different reasons, but mostly because of the sense of strangeness and the long distances involved in attending mainstream schools. They preferred to walk with their brothers and friends in their familiar neighbourhoods rather than feeling like strange children in faraway mainstream schools for DHH students. This preference could be illustrated in several quotations of the students and parents. For instance, HHS3 said:

“There is a school next door to our house where my younger brother and my friends go to. I hope to go to it”.

DS2 added:

“I am not happy here. There are lots of problems and fights with general students because I am strange to them”.

DSP1 asserted that:

“I will definitely choose our neighbourhood school as an educational option. This is supposed to be my son’s school. If he didn’t suffer from a hearing loss, it would be the correct and natural choice”.

One parent (HHSP2) added as a condition the provision of benefits for students who needed them if this idea was to be accepted, whereas another parent DSP2 disagreed with this idea, commenting:

“There are no Deaf peers in the neighbourhood school. I want my son to learn sign language and to be bilingual-bicultural”.

7.5 Participants’ Views of Educational Provision for DHH Students

The participants were asked during the interviews about how satisfied they were regarding the current provision for DHH students and asked about the best educational option. Twelve specialist teachers, eight DHH students, and four DHH students’

parents were interviewed on this issue. Thus, a variety of perspectives was expressed, as showed in the Table 7.3 below.

Participants	The views regarding the educational provision for DHH students
The specialist teachers	<p>3.5.1- Specialist teachers' views of the current provision for DHH students</p> <ul style="list-style-type: none"> • Eight teachers expressed dissatisfaction with the current provision due to reasons associated with the schools' environment and human resources. • Two expressed satisfaction but mentioned some aspects that needed development. • The last two teachers were satisfied with the current provision and saw them as educational alternatives. <p>3.5.2- Specialist teachers' views of the best educational option for DHH students</p> <ul style="list-style-type: none"> • All the twelve teachers saw inclusive education as the best option for the HH students, unconditionally. • Five teachers chose inclusion for the Deaf unconditionally. • Five teachers agreed on inclusion for the Deaf with some conditions in the services provided and the timing of inclusion. • Two teachers chose the integration program for the Deaf which represents the bilingual-bicultural philosophy, because of hearing and linguistic difficulties.
The DHH students	<p>3.5.3- DHH students' views of the current provision for DHH students</p> <ul style="list-style-type: none"> • Four DHH students felt discomfort because of the long distance and strangeness. • Three DHH students felt comfortable because of the presence of their DHH peers. • One student did not express interest in this regard. <p>3.5.4- DHH students' views of the best educational option for DHH students</p> <ul style="list-style-type: none"> • Six DHH students expressed their happiness towards the inclusive education. • Two DHH students wanted their DHH peers and specialist teachers with them in inclusion provision.
The DHH students' parents	<p>3.5.5- DHH students' parents' views of the current provision for DHH students</p> <ul style="list-style-type: none"> • Two Deaf students' parents criticized special schools for reasons related to segregation. • One Deaf student's parent and one HH student's parent showed their displeasure with integration because of the long travel time and distance and as being an unhelpful environment to learn speech, language, and listening. • One Deaf student's parent and one HH student's parent were happy with the integration programs as they saw it as a bilingual-bicultural environment that provided better services. <p>3.5.6- DHH students' parents' views of the best educational option for DHH students</p> <ul style="list-style-type: none"> • Three DHH students' parents chose inclusive education as the best option. • One of the Deaf student's parents chose the integration programme for bilingual-bicultural purposes.

Table 7. 1 Summary of participants' views of the educational provision for DHH students

There was a sense amongst interviewees of wanting inclusive education as soon as possible while maintaining other options as educational alternatives. Table 7.1 above summarises the responses in this sub-theme.

7.5.1 Specialist Teachers' Views

The twelve specialist teachers were asked about the current educational options for DHH students, based on their experience and specialisation in DHH education. The question pertains to their satisfaction level about the available educational options for DHH students in Saudi Arabia and their feelings regarding the need for inclusion. Opinions differed, as shown in the Table (7.3) from dissatisfaction, satisfaction with some weaknesses and a need for development, to complete satisfaction of the available educational options for DHH students. Relevant to this theme, there were two dimensions, current provision for DHH students and the best educational options. Eight of the specialist teachers expressed their dissatisfaction regarding the current educational options for DHH students, for various reasons. The arguments of dissatisfaction of the ST1 & ST4 & ST11 & ST12 are more associated with school environmental causes. There was a suggestion that the current school environment does not serve DHH students and is not appropriate for their needs (ST1 & ST4). ST11 asserts this point:

“The school environment for DHH students should be the same neighbourhood environment where the DHH children can find their friends and family members”

This point was also confirmed by ST12:

“I am not satisfied with these systems. The special education environment and advantages have seduced some of the DHH students and their parents into staying as long as they can in these programmes”.

The above point implies that the benefits provided for students with SEN/DHH in special education environment could put pressure on progress towards inclusive education, because the focus is more on the disability and the advantages which accrue. This could be reinforced by prominent medical-model views amongst parents which places less emphasis on students.

The remainder of the specialist teachers showed displeasure with human failings. Two teachers indicated the lack of coordination (ST3) and planning (ST6) between the roles of educators, administrators, and families as a reason for their unhappiness with the current provision. However, while ST8 emphasised the deficiencies of interest in the linguistic growth for DHH students, ST10 went on to mention confusion over accepting DHH students and errors in diagnosis.

Some felt dissatisfied with the levels of support for SEN (ST5), whereas others considered the availability of these educational options in Saudi Arabia as advanced in comparison with the Arabic Middle East countries (ST2 & ST7). ST2 stressed the presence of choice, where the parents and the DHH students themselves could choose their futures. He preferred to keep the integration programmes as “representative of bilingual-bicultural philosophy” for the Deaf individuals (ST2). ST7 added to this point:

“I am satisfied. For the HH students, I consider it good because there were a lot of them who have benefited from these programmes and later went on to general education forever”.

Based on their broad experiences and knowledge of DHH students’ provision, specialist teachers were also asked about the best educational option for educating these students. The views that surfaced were mainly about inclusion in neighbourhood schools. The responses have also varied depending on whether the student is a Deaf or a HH student.

For the HH students, all the specialist teachers preferred inclusive education as the best provision without reticence or setting conditions. This choice was based on their belief that HH students were closer to the hearing community in their language and culture. Moreover, the fact that their hearing remained reinforced their involvement in the wider community. Some of the responses illustrated this:

“Inclusive education is the easiest and best provision for HH students, because of their hearing ability” (ST4).

“The inclusive education in the neighbourhood school is real participation” (ST11).

This implies the significant role of the ‘interaction’ and ‘participation’ in the wider community. They are essential in communities of practising education for all learners.

However, the views of the best educational option for Deaf students showed some diversity and conditions for inclusion. Although five of the specialist teachers agreed on inclusive education for Deaf students without conditions or hesitancy, the other five somewhat lacked confidence in the Saudi educational system, and suggested various conditions were required. Most of these conditions were associated with providing a full range of services (ST4 & ST12), support (ST5), and overcoming all associated barriers to being strong and successful (ST1), while ST9 stipulated that:

“Inclusive education should be applied from the first year, where we place the Deaf student on level one, allowing him to become familiar with his situation in coming years, not by (for instance) being in a special institute or classrooms for one or two years then suddenly facing inclusion”.

The two remaining specialist teachers did not oppose inclusive education for Deaf students as an educational option, but they preferred the integration program for them, as they put it:

“A compromise between the segregation from the Deaf culture in inclusion and the segregation from the wider community in a special school, representing what is called bilingual-bicultural” (ST2).

“I prefer integration in special classrooms for the Deaf since their case is unique, particularly the critical role of the hearing and the spoken language in inclusive education, so the situation is harder for the Deaf”.

7.5.2 The DHH Students' Views

The DHH students were also asked about their level of contentment regarding the current provision. However, unlike the specialist teachers, their only experience was the integration program where they were placed currently. Three of the Deaf students and one of the HH students expressed discomfort with the integration programmes. The expressed reasons were the long distances and the time spent getting to schools (said by two Deaf students coded DS1 & DS4) and feeling strangeness/problems with hearing peers (DS2 & HHS3). Nevertheless, some students showed their satisfaction when they found HH peers (HHS1 & HHS2). This was indicated as they were:

“Comfortable principally without problems with hearing peers” (DS3).

Only one student stated his indifference:

“It does not matter whether I'm here or any other place” (HHS4).

The second question asked to the DHH students was regarding their willingness to be placed in a neighbourhood school with all the support and services required being provided there. This was based on the option of inclusive education which certain studies have focused on (see: Shyman 2015). It was under the pretext of simplifying the meaning of inclusion to young DHH students who may not know this concept. Unsurprisingly, all the DHH students showed their approval of this idea. DS1 added, *“I want to take my specialist teacher”* who should already be there as a consultant (Shyman, 2015), and *“my [HH] friends [in integration programme] Mohammed and Omar”* (HHS2).

7.5.3 The Views of DHH Students' Parents

Turning now to the views of the four DHH students' parents who also were asked about the provision for DHH students, two Deaf students' parents (DSP1 and DSP2) have criticised special schools for the Deaf for encouraging segregation. However, views regarding the integration programmes differed. DSP1 criticised the integration program, where his son has to:

“Wake up one-and-a-half hours earlier than his brothers and travel long distances with traffic jams and peril”.

Whereas DSP2 praised the integration program for the Deaf as:

“A representative for the bilingual-bicultural philosophy”.

Therefore, their views regarding the best educational option differed, as described above. DSP1 asserted that:

“I would definitely choose the neighbourhood school so that my Deaf son could go with his brothers to a school that would be his school if he wasn't Deaf” (DSP1).

However, DSP2 said:

“I would not choose the neighbourhood school, where my son cannot find sign language or a Deaf culture”.

The two HH students' parents (HHSP1 and HHSP2) also differed, where HHSP1 criticised the integration programmes as an ineffectual environment for HH students to learn Arabic spoken language and cultural skills. For instance, he said:

“Interaction of HH students with each other is not beneficial most of the time. All the students have hearing loss and weakness in speech and language, so how will they learn from each other?”

This father showed his full support for the idea of inclusive education where DHH students can better provision. By way of illustration, he said:

“my son could find a rich environment for learning the speech, language, and listening skills in less time and with less effort” (HHSP1).

However, HHSP2 showed his satisfaction with the integration programmes for HH students. This view was due to the advantages provided by the government for students with SEN as a right. He believed that these advantages and support were not provided in neighbourhood schools currently. However, HHSP2 changed his opinion and supported the inclusion option when he was informed that the advantages and services were one of the essential elements of inclusive education provision to be provided in the neighbourhood schools (Shyman, 2015).

7.6 Summary of Current Experiences of DHH Students in Mainstream Schools

This study revealed a reluctance of the specialist teachers to describe the current practices in mainstream schools as inclusion. A possible explanation for this frequent unwillingness to name the current experience as inclusion and naming it by other related phrases is that it was a result of their knowledge of the modernity of inclusion as a newer concept, as mentioned (see Section 4.5) by Jahnukainen (2015: 60):

“During the 1960s, new ideas of normalisation, mainstreaming and, later, integration were born and the demand for the least restrictive environment for every child was set. ... [However,] integration and mainstreaming have since the 1980s been replaced by the inclusion movement”.

This explains that the concepts ‘the least restrictive environment’ and ‘special classrooms’ were likely to be used interchangeably with the concept of ‘integration’ as they emerged in a similar period and had similar provisions programmes at that time. Therefore, it was inappropriate to use the term ‘inclusion’ alternatively with ‘integration’ or the other terminologies mentioned above where different features and practices were likely exist (Bendová and Fialová, 2015). Thus, it could be argued that the current experience could be named as ‘integration’, as this name closely represents all the names given by the specialist teachers, and it is the concept used officially in international research and studies (Jahnukainen, 2015). It could also be argued, all

characteristics and practices of the current experience of DHH students in mainstream schools are compatible with the educational option of 'integration', as mentioned in the Warnock Report (1978) (see Appendix A: Table 4.4). As well as in the comparison table of the practices of inclusion and integration adopted from Bendová & Fialová (2015: 814) (see Section 4.5). One implication of this is that in the current chapter of reporting the findings, the term 'integration' will be used as representative of the current experience of DHH students in mainstream schools.

Moreover, this study confirmed that Deaf students have two educational options in special and mainstream schools, while HH students has only one choice in mainstream schools. The provision of inclusive neighbourhood schools appeared, but only for hearing students with minor speech and language disorders (not DHH students) and without services provided there. An explicit wish of the DHH students, their parents, and the specialist teachers was to locate DHH students in the nearest schools or schools where their brothers and neighbours attend. The DHH students showed a sense of belonging and familiarity with their social neighbours. However, it was evident that inclusive education provision is not one of the educational options provided for DHH students in the Saudi context.

Investigation of this chapter was required to clarify the type of provision for DHH, which was ambiguous or overlapped in terminology. Thus, it was necessary first to document this experience as evidence of a delay in implementing inclusion provision. This could be also a primary lever to work toward inclusive education by identifying the current case and available possibilities. It gave me eligibility and insight to extend this research to include participants' views about how to move towards inclusive education for DHH students in Saudi Arabia (see next Chapter). It could also provide a chance or contribution to researchers in the Saudi context as a threshold to start from and end

of the doubt about integration in mainstream schools. Thus, it was necessary to separate the findings or perspectives regarding the current experience from the findings of how to improve the DHH students' provision in independent chapters. The first views were experienced previously and currently; the second represents their perspectives in a future case of implementing inclusion and based on their experiences in this unique socio-cultural context.

Chapter Eight: Participants' Views about How to Move Towards Inclusive Education for DHH Students in Saudi Arabia

8.1 Introduction

The investigation in the previous chapter offers insights to extend this research and investigate participants' views about how to move towards inclusive education for DHH students in Saudi Arabia. This chapter represents the participants' perspectives regarding inclusive education, based on their beliefs as members of communities that practice education and mainstreaming for DHH students, as well as bringing their voice towards the centre of this community. The details of data generation and analyses were described in the introduction of chapter seven (Section 7.1). This chapter offers the findings from qualitative data analyses under three key themes relating directly to the second, third, and fourth research questions: inclusive education, barriers, and support required.

As a reminder, Specialist Teachers were coded (ST), Deaf Student (DS), Hard of Hearing Student (HHS), Deaf Student Parent (DSP), Hard of Hearing Student Parent (HHSP), Deaf Students School (DSC), and Hard of Hearing Students School (HHSC). For each group numbers were added after the code to differentiate between respondents and schools. For instance, Deaf student's Parent number (2) has been coded (DSP2), and Hard of Hearing Students School number (1) has been coded (HHSC1).

8.2 Inclusive Education

This part is devoted to presenting the evidence that emerged in association with the specialist teachers' understandings by the term 'inclusive education' (second research question). In addition to the key issues presented in the last chapter, there were other underlying matters which emerged from the data analysis. The specialist teachers felt that there were several aspects associated with the term 'inclusive education'.

However, their perspectives could be analysed through the lenses of many definitions, theoretical frameworks, and literature review which have been discussed in Chapters 4 and 5. (see Ainscow, 2005a; Doherty, 2012a; Lave & Wenger ,2014). This does not reduce the importance of the three disability models' lens analysing the views toward the disability and identifying the model of understanding, and linking this view to the preferred educational options: segregation, integration, or inclusion. They might clarify the perception of a participant's favoured educational option rather than interpreting their understanding of the meaning of the term 'inclusive education'. Inclusive education could be understood from several perspectives or elements of meaning and be based on different sociocultural aspects (Ainscow, 2005b; Doherty, 2012a). Nevertheless, participants' comments were viewed through lens of the appropriate model of disability model. Furthermore, responses from the specialist teachers contained different meanings in one response, so participants' codes appear frequently in different frameworks or associated with different issues. (See Appendix K: Table 7.4).

8.2.1 Meaning of Inclusive Education

When the participants were asked what they understood by the term 'inclusive education', the specialist teachers provided various elements of meanings. These elements of senses emerged from the data analyses, and some of them were confirmed aspects of the literature review and the theoretical framework chapters. Consequently, they could be gathered together at the end to present may be an appropriate definition of inclusive education to the Saudi context which also takes into account the unique sociocultural implications of this society. These essential meanings came from data analysis and contain; inclusion of values and ethical issues, location, continuing process to obtain diversity, the ethos of identifying and removing the

barriers, effective practice, right, state of welcoming and belonging, and inclusion of the curriculum (See Appendix K: Table 7.4).

Inclusion of values and ethical issues was the most common meaning in the inclusion definitions generated from the views of specialist teachers. This seemed in the form of identifying students who could be included in the inclusion as a concept and was made apparent when the analyses of these perspectives showed different categories of students to be in inclusion. For example, three of the specialist teachers did not name a particular category and mentioned all the students, regardless of the classifications. The specialist teacher ST1 identified inclusion as *“an education for all or in general”* (ST1). Other responses were *“inclusion of all students with all their individual differences”* (ST2) and *“including a student completely in the school environment”* (ST11). Whereas just over half of the specialist teachers stated that inclusion was for DHH students. This was illustrated by ST8’s definition, *“educating a student with hearing loss in general education”*. Lastly, only one teacher referred to inclusion of the students with SEN, expressing it as, *“a variety of the students with special educational needs in the regular classroom with hearing students”* (ST6).

Their perspectives imply a view of school as including all groups of learners as members of a diverse and inclusive community of practice. It is also consistent with Ainscow's (2005b) view that inclusion may involve a particular emphasis on those groups of learners who may be at risk of marginalisation, exclusion or underachievement. Inclusion is therefore seen as an ethical issue, which entails a responsibility to wisely monitor all students with SEN as potentially vulnerable. A development is needed to confirm the presence, participation, and achievement of students with SEN in the school system as a whole (Ainscow, 2005a). As mentioned in Section 5.4, inclusive values consider the rights of SEN groups rather than

considering a location (Dyson, 2001). Moreover, diversity is one of inclusion's most essential principles (Shyman, 2015).

The second mostly frequently noted issue was **location of inclusion**, where nine of the specialist teachers varied in their physical locations. Firstly, some responses from five teachers contained words *'the general schools'*, *'general education'*, *'hearing students schools'*, and *'the society schools'* which were all grouped after several readings of the texts into 'regular schools'. Therefore, these teachers have labelled generally the regular schools' location to inclusion. To clarify, as one interviewee put it:

"Providing all the services in general education"

whereas the other three specialist teachers placed the regular neighbourhood schools as locations for inclusion, as two of specialist teachers commented:

"Inclusion is being in the neighbourhood school or the nearest school from the DHH student's house as a right" (ST1).

"The DHH students integrated socially and educationally more with the hearing peers of the same age and the same neighbourhood environment" (ST7).

More specifically, two of the teachers mentioned the regular classroom as a specific location of inclusion. One said:

"A variety of the students with special educational needs in the regular classroom with hearing students" (ST6).

ST11, who combined locations, shared the last two views that inclusion involved:

"Including a student completely in the school environment and all the classroom and extracurricular activities under the responsibility of the regular classroom teacher... inclusive education in the neighbourhood school is real incorporation".

It could be said that the points raised above may look at inclusion at a systemic level, including the overarching principle that any child's neighbourhood school should be

inclusive. This is consistent with Shyman's (2015) the definition of inclusion, in which he claims that the nearest school is the right place for inclusion because of familiarity and social justice. However, the other reported meaning, mentioning DHH students being included in hearing classes, instead appears to reflect thinking shaped by integration (see Section 4.3.1).

A variety of perspectives was also expressed by the meanings of specialist teachers regarding an **effective practice of inclusion**. This includes all the practical activities increasing participation or contact between students with SEN with their peers in inclusive settings (ST1). Specialist teacher ST10 implied that

“There were several provisions intended to increase the interaction with DHH students with effective communication”.

Therefore,

“inclusion as an effective practice aims to provide all the services and support needed to increase their interaction and presence in inclusive schools” (ST9).

Less than half of the specialist teachers (ST1, ST3, ST7, ST9, and ST10) stressed *“the importance of the continuous provision of all services and possibilities”* in assisting the participation of DHH students in inclusion.

This echoes Ainscow's (2005a) interpretation concerning where the students receive their education and the quality of the services, when all students with SEN receiving a provision as full participants in the classrooms. Such practices increase their interaction, communication, presence, participation, and achievement in inclusive schools.

Inclusion as a continuing process to promote diversity was also mentioned as one of the broad meanings of inclusion. Half of the specialist teachers meant that it is

a continuing intention to obtain diversity and learning how to live and learn from each other in this diversity, collaborating and accepting each other (Ainscow, 2005a). Phrases such as “*all students including SEN and DHH students*” (ST1), “*students with different individual differences*” (ST2), “*all categories of society*” (ST5), and “*a diversity of students with different educational needs*” (ST6) were all grouped together after several readings of the texts to be coded as ‘a process of promoting diversity’. This process of shaping the diversity in an inclusive environment was illustrated by ST2 in his comment:

“An impairment is considered to be a normal difference like any other difference between the students in an environment which calls for a diversity in the experiences, skills, and hearing and visual practices. This diversity plays a considerable part in gaining knowledge of the culture”.

The responses of participants implied that ***inclusion was the ethos of identifying and removing barriers***. These barriers are identified and explained in more detail in a forward section (8.3). However, several definitions of specialist teachers mentioned the importance of having this ethos in inclusion. For example, ST3 mentioned

“difficulties facing DHH students being removed”.

Other responses included

“moving the DHH students out from the negative attitudes and isolation”
(ST5)

And;

“working to identify and overcome the linguistic barriers to DHH students”
(ST8).

The quotations above offer an insight into how the knowledge, skills, and attitudes of specialist teachers could promote practice and influence the ethos if there was a mechanism for their ideas to move towards the centre of the community. An inclusive ethos is intended to ensure equal chances for all students, encouraging the acceptance of variance, and promoting attitudes to students with hearing loss (Powers, 2002).

Inclusion as a right was a key part of the definitions of inclusion in the case of ST1 and ST3. These two participants finished their statements about inclusive education with the phrase

“as a right of DHH students”.

This right refers to having equal opportunities and the same educational options as other members of society. This meaning may be related to specialist teachers' understanding of the origins of inclusive education in the Civil Rights movements of the 1960s, where the goal was to gain equal rights and opportunities for all (Landorf and Nevin, 2007), and the Salamanca Statement (UNESCO, 1994) which supported this view as it clearly embraced the idea that inclusion promotes the rights of children as a human right. As discussed in the historical overview in the literature (Section 4.2.3), the Salamanca Agreement was signed by 92 countries and 25 international organisations at The World Conference on Special Needs Education: Access and Quality (Shyman, 2015) and one of those countries is Saudi Arabia (Al-mousa, 2010). These comments by specialist teachers in the Saudi context endorse the vision of the Salamanca Statement of the right of every single child to be educated in inclusive schools as:

“the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all” (Unesco, 1994: 11).

Inclusion as the state of welcoming, acceptance, and belonging was also offered

as a meaning of inclusion. For instance, ST4 stated that:

“The DHH students belong to the community of the school and should do the same social and educational practices as their hearing peers”.

Other response clarified inclusion as:

“Engaging in the school community, which also welcome the DHH students”
(ST8)

And:

“Both sides being welcoming and accepting” (ST10).

The specialist teachers' comments included in this section support an ideal of a CoP with the capability of respect and friendships so that students have an essential feeling of belonging to the school and community. Members of communities of practice come together with social relations to engage in shared activities (Lave & Wenger, 1991). The social relationships between members are characterised by mutual acceptance and interest as they belonging to a particular domain. These people *“interact frequently and learn from each other how to achieve best practice in their area of interest”* (Wenger, 1998: 98). Therefore, a collective learning practice includes both the engagement with a project and accompanying social relations.

The last range of meanings related to the concept of ***inclusion in the curriculum***, which emerged by analysing the definition of inclusion provided by ST11, as he indicated:

“Placing the DHH students completely in the school environment and in all the classroom activities and subjects of the curriculum, including the

extracurricular activities which could help to facilitate the curriculum, under the full responsibility of the regular classroom teacher” (ST11).

An inclusive curriculum could be achieved by meeting pupils’ special educational needs (Powers, 2002). Responsibility regarding DHH students is discussed in more detail in the previous chapter (see Section 7.2.2) and a comparison between the responsibility of students with SEN in inclusion and integration are discussed in Section 4.5. This aspect of inclusion did not figure prominently in the data but the participant ST11 clearly placed responsibility for more than this on to the regular teacher for DHH students, extending this to include activities that go beyond the academic curriculum (Bendová and Fialová, 2015).

8.2.2 Distinctive Inclusive Education

The conversation with the specialist teachers was extended to generate data associated with the most differences between inclusion and integration. This section is closely related with the previous section on the meaning of inclusion and seeing how much the participants recognise inclusion itself rather than using the two different concepts interchangeably. All the specialist teachers agreed that inclusion is clearly different from integration and reported different aspects in these differences. The literature review (see Section 4.5) and the theoretical framework chapters suggested some of these differences, and some of them emerged from the participants’ knowledge and experiences. Therefore, along with the differences of those provisions in the **definitions** provided by the participants in the previous section, the analyses of the views of specialist teachers showed that integration and inclusion also differed in educational and social structures, practices, level of segregation and participation, educational places, and aims and results.

More than half of the specialist teachers mentioned issues associated with **the educational and social structures** where integration and inclusion differ. Integration incorporates DHH students more in the extracurricular activities, but less socially and educationally in curricular classroom activities, whereas inclusion includes both structures to be equally important in general education. Excerpts illustrating this include:

“In integration, they were integrated less socially and educationally” (ST6).

“In inclusion, there is more focus on the educational process” (ST5)

And:

“Inclusion aims to place DHH students in all the extracurricular and curricular activities, while integration places them only in the extracurricular activities” (ST2).

This finding is consistent with the idea that inclusive education seeks to accommodate, socially and educationally, all students as full members of mainstream schools community or context, regardless of the level of needs or ability; it is ‘accommodation’ rather than the ‘assimilation’ that takes place in integration programmes without support or services (Avramidis and Norwich, 2002). This distinction is considered vital because each concept refers to different implications, such as the educational and social structures and processes found in section (7.2) which helped to identify the current experience in mainstream schools for DHH students as integration rather than inclusion.

Integration and inclusion were also differentiated by the specialist teachers in **“the practices”** (ST4 & ST8). To explain further:

“Integration has limited inclusive practice in mainstream schools while inclusion aims to achieve more inclusive educational practices” (ST5).

“In inclusive education, there are good follow ups, more incorporation of DHH students in the education and the community, and there is more

preparation in terms of the educational and social aspects, if it is applied correctly” (ST1).

Relevant to these particular findings is the work of Bendová and Fialová (2015) who identified nine distinct practices of integration and inclusion which suggests that they involve different practices that help in recognising the type of provision (see Table (4.3) in Section 4.5.

However, the comments here highlight the responsibility of the classroom teacher to prepare and to become involved in such practices as members of this community; therefore, the beliefs of specialist classroom teachers, if expressed in informal discussions with their colleagues, could be helpful in releasing this view into the practices of their CoP.

Four of the respondents identified the **levels of segregation and participation** taking place in those provisions as an essential difference; in integrative provision:

“The segregation is greater, the psychological barriers of hearing students are greater, there is less participation, and the familiarity and friendship between DHH students and hearing peers are also less” (ST12)

whereas:

“In the inclusive education, the DHH students accompany their hearing peers all the time and in everything” (ST10) where “they spend all the time as participants in general education” (ST8), and there is “more involvement of DHH students in the education and the community” (ST1).

Furthermore, three of the teachers identified **differences in places of education**, namely:

“The educational places where the DHH students will be educated in. In inclusion, they will be placed in the general neighbourhood school where they can find their neighbours, who they familiar with, whereas integration will be in a faraway general school where they do not know only DHH peers” (ST1).

This illustrated that provisions differ in the kind of schools where students are educated. However, the other two specialist teachers referred to the kind of the classrooms provided, commented:

“In integration, DHH students placed in special classrooms in mainstream schools” (ST6) While they will be placed “In regular classrooms in mainstream schools, as an advantage of inclusion” (ST7).

These descriptions could be compared with those of Rodriguez & Garro-Gil (2015), who mentioned that integration in mainstream schools involve students within places such as special classrooms and pull-out services. In contrast, inclusion places students in the broader community where regular classrooms, schools, and communities are provided for them.

Another reported difference mentioned was that the two kinds of provision have ***different aims and results***. Teacher ST1 set the goal of integration as being less purely social, yet he also extended the aim of inclusion socially and educationally, he reported;

“more incorporation of DHH students in the education and the community, and there is more preparation in terms of the educational and social aspects” (ST1).

This was similar to ST9, who commented also that:

“Inclusion aims to involve DHH students 100%, but integration’s final goal is between 20 to 25% of involvement”.

However, ST11 felt that the difference between integration and inclusion was in both aims and results:

“The aim of inclusion is clear and can be achieved; the result will also be very satisfying, so the results of the provisions will be different, and inclusion will have more advantages”.

This finding reflects those of Shyman (2015), Doherty (2012a), Jahnukainen (2015), and Ainscow (1995), who also pointed out differences in the intended aims and results of inclusion and integration (see Section 4.5).

To sum up, this section reveals the nuances of meaning about 'inclusion' brought into the school by the specialist teachers from outside the school context. Communities of practice can have different practices (Wenger, 1998) but here the specialist teachers' understandings of inclusion must co-exist with the variety of views of inclusion or integration held by their teaching and administrative colleagues.

8.2.3 Understood Model of Disability

This section is devoted to exploring the underlying concepts behind specialist teachers' responses concerning inclusive education for DHH students. Two underpinning frameworks for how specialist teachers perceived hearing loss or Deafness were apparent. The first dimension concerned whether impairment and inclusion were regarded as a social perspective or in an interactional concept combining both medical and social perspectives. It was surprising that the specialist teachers' knowledge demonstrated comprehension of the social and interactional models. This could be associated with their experiences and good quality pre-service training, as they may be aware of elements of disability models.

Generally, the specialist teachers saw no significant role in ***the medical understanding*** of hearing loss. It should be noted that the specialist teachers opposed the perception of Deafness presented in the medical model (see Section 5.5.1: Table 5.3). Medical model thinking focuses more on the disability and the level of need of DHH students rather than their ability and the surrounding circumstances. A medical model would view that the change should be in the DHH students rather

than the surrounding society as a result of a disease or injury that should be tackled first, currently or during early development. The specialist teachers' opposition to this perspective could be a result of having academic qualifications in DHH education; teachers' knowledge regarding inclusive education is a significant issue in applying it successfully (Reynolds 2001).

However, as might be expected, data generated from the specialist teachers' interviews has revealed that approximately half of them reported responses associated with the **social perspective**. This was evident when some of the participants laid more weight on the surrounding environment being improved for DHH students. They also emphasised the ability and the strong points of DHH students being seen rather than emphasising their hearing loss or weaknesses. They also refused to focus on the hearing loss, and felt that it was impossible to change the DHH individuals and instead the viewpoints of societies could be changed:

"I see the ability of DHH as having a great value and never see the disability. The society and the educational environment are responsible for changing their barriers to enabling DHH students to operate amongst us" (ST2).

"We should look at the level of ability rather than the weakness. We should adapt our classrooms and educational environments, based on their abilities and not focus on hearing loss" (ST3).

"We can change the society into one that the student can adapt to" (ST4).

"The abilities are different and varied. I never look at their needs; we have to look at the level of ability and the extent of its difference. The disability lies more with the society" (ST9).

"It depends on the abilities of each student, and we should not look at their disability because we will oppress them. The child cannot be changed as much as we can change our communities" (ST10).

"I would talk more about the surrounding environment of the students because it is the first problem and there is no problem in the DHH students. We should prepare the external environment in everything – the students cannot be changed, but they can be improved by improving their environment, so the changes should be in the surrounding society" (ST11).

“We should benefit from the strong points of DHH students and appreciate them. I have never seen any fault in them – they are good learners” (ST12).

Thus, these perspectives are underpinned by a social model of disability, with some elements of an affirmative model (Swain and French, 2000) which emphasises both the potential influences of educational and societal contexts and which contests the stance that impairment is by definition a bad thing. All members of the community have to be prepared to change their beliefs, understandings, and attitudes toward DHH students and need to improve their educational practices as a whole to meet the needs of all pupils, thereby developing successful inclusive education (Bryant, Smith and Bryant, 2008).

The remaining half of the participants showed an ***interactional understanding*** of hearing impairment and Deafness, incorporating both social and medical elements. However, Deafness as an impairment in the interactional model is understood differently than in medical and social models. It focuses on understanding the level of need and services required in educational settings. This reference to impairment is not aimed at segregation or highlighting the disability as a significant difference; it is understood as an ordinary variation which should be acknowledged and which also contributes to heterogeneity in an educational setting. From this perspective, the medical, social and educational understandings interact in harmony. By way of illustration, these could be demonstrated in the following quotations:

“First, we should look at their level of ability and not forget the level of needs, because we cannot give him his needs unless we know his level of ability” (ST1).

In the same vein:

“They work together. We should know the possibilities if we are to know what needs to be provided” (ST5)

“Both. I fill his needs by his abilities” (ST6).

Further responses included:

“The needs and abilities together. His abilities in his places of interest, but his needs should be known so he can be provided with appropriate services” (ST7)

“The two. Look at his linguistic needs through which he can be taught the needed community language” (ST8).

This also accords with Keogh et al. (1997), who showed that the students’ capabilities of learning and the social educational environment could not be separated from each other in the interactional model.

This analysis indicates that most specialist teachers’ responses cannot be labelled as reflecting solely one model of disability. Rather, they reflect the social and interactional way of understanding hearing impairment, with an emphasis on the socio-cultural aspects for providing equal opportunity and access to inclusive education and social belonging. Therefore, the participants’ comments made the assumption that it was the school’s responsibility to accommodate the DHH students’ needs. This finding is consistent with the social and interactional models to conceptualising hearing loss (see Section 5.5). The interactional model views the level of need as the result of interaction between the strengths and weaknesses of the DHH students, based on the level of support available, and the suitability of the education being provided in that context. Thus, to understand hearing impairment, we need to focus not on the DHH students per se but on their socio-cultural environment to fully understand their special educational needs.

8.3 Barriers to Inclusive Education for DHH Students

This section is devoted to explore perspectives regarding barriers to implementing successful inclusive education for DHH students specifically Saudi Arabian boys at primary level (see the third research question). The core findings under this theme revealed some issues relating to human-related barriers, physical-related barriers, and barriers' influence. (See Appendix L: Table 7.5)

8.3.1 Human-Related Barriers

The sub-theme of human-related barriers comprised five aspects: values and societal attitudes, training, interaction, leadership and authorities, teaching and learning management. Participants reported that barriers associated with human resources were the first barrier against a genuinely inclusive education for DHH students. They believed that human factors associated with the above five issues were the most critical barriers to be tackled in a consideration for inclusive education of DHH students in the Saudi context.

8.3.1.1 Values and Societal Attitudes

As mentioned in Chapter Four, the values and societal attitudes are a combination of beliefs and feelings predisposing individuals to behave in certain ways. Therefore, they could include issues associated with mood, thought, evaluation and behavioural tendencies. All the participants confirmed that values and attitudes played an essential role in developing inclusive education for DHH students. However, they mentioned issues that stand as barriers.

The most critical issue mentioned by the participants was unconstructive or negative **beliefs and feelings** held toward DHH students. As mentioned before, educators

could have a lack of awareness of DHH characteristics, which could also lead to this cognition. For example, ST5 commented:

“teachers and community members are entrenched in negative beliefs”.

Therefore:

“If unconstructive or negative beliefs and feelings existed amongst anyone, this will stand as a challenge against developing inclusion” (ST1).

The negative beliefs and feelings held toward DHH students could also lead to low **expectations** regarding their ability and future. This was illustrated by two of the specialist teachers, as they stated:

“The lack of knowledge regarding DHH students led to fewer expectations of their abilities and skills in education” (ST3).

“DHH students have lost some of their hearing ability – they have not lost their brains. Some hearing people have misconceptions in this regard, so DHH students suffer from low expectations in respect to the community” (ST6).

Concerns about **acceptance and discrimination** were more widespread. This could be held from both sides, whether hearing people or DHH students themselves, as an example for hearing people, ST4 stated that:

“The attitude of a regular teacher who does not accept DHH students will be reflected by his hearing students”.

Moreover, this is not expected to only come from hearing people; DHH students may also discriminate toward the hearing community, as reported:

“Deaf students like isolation. The Deaf only like to interact with people who understand them; they do not like to interact with hearing people and they often neglect their initiatives” (ST10).

Another reported human barrier was that insufficient **collaboration and participation** with DHH students. The educators who dislike participating or collaborating in the educational process as an active participant could undermine their inclusion. This

could be due to the placement of financial conditions on the collaboration. To be specific, ST11 said:

“The regular teachers refuse to accept DHH students in their classrooms unless they get financial support in their salary. They would want the same as a specialist teacher”.

One of the DHH students confirmed this point and stated:

“I want all the people surrounding me to collaborate with me in the regular classroom. All of them are required to participate in my success” (HHS2).

If there was a sense of **inequality** amongst DHH students and their hearing peers, this could result in an unwillingness to be educated in inclusive education. This was suggested by one HH student who complained:

“Whenever we are sat in classes upstairs, it feels unfair. We sit at the rear of the class without tables, and no one asks us even one question, preventing us from participating in the lesson. The teacher gives the hearing students homework and does not ask us to write any assignments” (HHS3).

8.3.1.2 Training

One of the most important barriers to successful inclusive education for DHH students in Saudi Arabia is the lack of professional training. This emerged from the views of all the specialist teachers encountered in this study. For instance,

“the development and training are truly significant” (ST5) and “the lack of specialised training” (ST6 and ST7) “is one of the biggest barriers to DHH inclusion” (ST12).

However, by talking about this issue, it appeared that the participants mentioned issues to be vital for the training for successful inclusion. These include pre-service training, in-service training, and kinds of subjects and courses in the training.

One third of the specialist teachers viewed the vital role of the **pre-service training** during the regular teachers' preparations in Universities and Teacher Colleges as an

essential human barrier. They felt that all academic departments graduating regular teachers should include specialised training in DHH/SEN education and inclusion. The specialist teachers held this perspective as they had experienced this kind of training, and they believed in the positive impact of the pre-service development on their values. Therefore, the absence of courses regarding DHH students and inclusion during general teachers' preparation periods could hinder inclusion for DHH students. Pre-service training needs to be longer and taken more seriously. This was illustrated by two specialist teachers, they stated that:

“The training before work is better. There is more preparation of teachers before they come to the field, so that when they encounter a student with hearing loss, they know how to deal with them, as they have a good understanding of DHH students and their needs” (ST4).

“More time should be spent on the pre-service training, where various issues could be understood, and these subjects should require a pass so that the level of interest will be higher” (ST9).

However, three of the specialist teachers suffered from insufficient ***in-service training*** due to the fact that the social sciences and research are evolving day by day. They believed that in-service training was required for all the educators and the specialist teachers who had graduated a long time ago, as evidenced by ST5:

“The educators have already gained experience in the educational field, so they know exactly what they need to be trained on, whereas in the pre-service training, there are theories which are often not applicable....[and] if the teacher has graduated ten years ago, there are plentiful studies and findings that he/she would have missed”.

Therefore:

“The emphasis should be on continual training during the service where the skills and experiences could be developed to include their knowledge in DHH education” (ST3).

The specialist teachers also varied in their perspectives on the importance of ***what subjects should be taught*** in this training rather than the timing of training. Some of

them viewed the absence of certain subjects in the training plan as a barrier to successful inclusion. The specialist teachers ST1, ST 5, ST9, and ST12 were more concerned about the subject of *“the communication methods with DHH students”*. ST6, ST7, and ST10 mentioned the *“teaching ways for DHH students”*. ST4 and ST11 gave more interest in *“the characteristics of DHH students and their individual differences”*. ST2 and ST3 preferred the subject of *“inclusive education”* generally as an essential course.

It could be concluded from the variation in the views expressed above that any community of practice has its particular heritage, processes and stores of different knowledge and experiences to deal with crises. Interaction and negotiation of meanings between members of these mainstream schools could be lead to some solutions to the issues of how to manage effective an authentic inclusion of DHH students. Such discussion would mean a reification of their ideas in this community. Wenger (1998) points out that any group working together in the pursuit of their enterprise while developing social connections within their community and over time, will have a shared wealth, which will include knowledge, experiences, and ways of tackling difficult issues.

8.3.1.3 Interaction with DHH Students

The issue of lacking human interaction with DHH students was mentioned by all the groups of participants as an essential barrier to successful inclusive education, particularly for DHH students. As informed by the literature review, interaction is divided into three parts: communication, initiatives of the interaction, and maintaining this interaction. As also mentioned in section 6.3.2, if the participants expressed a clear difference between the groups of the Deaf and HH students, this will be reflected

in this chapter. In the issue of interaction with DHH students, the participants had different responses for Deaf students and HH students regarding these three portions of interaction. Therefore, Deaf students will be addressed separately from HH students in addressing the interaction issue as a barrier.

The generated data regarding **communication** with Deaf students showed a variation in views. Two of the specialist teachers (ST2 & ST6) and all four Deaf students highlighted sign language as a facilitator for inclusion and interaction. They also mentioned that verbal and spoken communication were difficult methods to be used by Deaf students in inclusive schools. Therefore, these participants believed that forcing Deaf students to use spoken language in inclusive schools was a barrier. This viewpoint is summarized in the following specialist teacher's excerpt:

“Sign language, especially the easy descriptive signs that Deaf students use to communicate with hearing students and families, is helping the Deaf to succeed in inclusive education more than lip reading, which is more difficult on the Deaf because it requires learning other languages and learning the letters’ outlets, then combining these letters to build a word, and then building a sentence” (ST6).

The four Deaf students who participated in this study also supported this view. They emphasised their ability to use easy descriptive signs with hearing people and showed their beliefs in the difficulty of using the Arabic language (verbal and spoken) to communicate in mainstream schools, as one of the Deaf students commented:

“The signs of hearing people are straightforward and can be understood if they use them with me. I can also use the same easy signs with my hearing family members, which are different from the [professional] signs used with my Deaf peers, but it is challenging to focus on their lips if I want to know what they want” (DS2).

However, most of the specialist teachers and the two Deaf students' parents hold a different view regarding the communication with Deaf students in inclusive schools. They believe that Deaf students having only a single language and culture is an

essential barrier to the success of inclusive education. This means that mastering sign language alone, and the tendency of Deaf students towards preserving the Deaf culture only, prevents the Deaf in inclusive schools from successfully interacting with hearing people. Furthermore, all viewpoints highlighted the positive effect of the Bilingual-Bicultural Philosophy in promoting inclusive education for Deaf students. However, it was observed during visits to the DSC1 and DSC2 that Deaf students had insulated themselves from the hearing community in mainstream schools. This was also confirmed by ten of the specialist teachers. One of them said:

“Deaf students like the isolation from the hearing community as they experience a greater sense of belonging in the Deaf community and culture” (ST4).

Therefore, it could be summarised that mastering sign language alone and the bias towards engaging with the Deaf culture only could stand as a barrier to the success of inclusive education. This perspective is summarized in the following specialist teachers' quotes:

“The Deaf students are closed on themselves, and sign language alone does not help in inclusion as much as the spoken language. If the Deaf student was to become Bilingual-Bicultural, this would help him significantly, as the spoken language facilitates their interaction with the big community” (ST7).

“Sign language alone does not serve in inclusive education. It is impossible to teach all the hearing peers sign language for the sake of one Deaf student. However, it is possible to use sign language to learn the spoken Arabic language so as to become a Bilingual-Bicultural individual, especially if this is exploited at an early age. So there is another option for sign language, but using it alone will be a barrier to success in the regular classrooms” (ST8).

For communication with HH students, all the participants believed that their lack of knowledge of the spoken Arabic language was the most powerful barrier to their success in an inclusive setting. The participants also confirmed that although they had a weakness in the Arabic language, it was the first and official language for HH

students to communicate with hearing peers. Furthermore, unlike the Deaf students, there was no other particular language for HH students. Therefore, this weakness in the verbal and spoken lingual communication could stand as a challenge for interaction and inclusion. This was indicated as one informant reported:

“There is no other option for HH students in communication other than the larger community’s language. However, their weakness in the vocabulary and pronunciation could restrict their interaction with hearing people” (ST8).

Another reported barrier was a rareness of **initiatives for interaction** between DHH students and hearing peers. This issue represents a second section of interaction, as mentioned before. However, opinions differed as to who would be responsible for initiating this.

For the Deaf students, the data generated from most participants indicates that:

“Deaf students like isolation and they only like to interact with their Deaf peers who understand them. They do not like to interact with their hearing peers, so the Deaf often neglect the initiatives that are designed to encourage interaction” (ST10).

Therefore, it appeared that:

“The hearing students initiate more interaction, and the Deaf students have fewer initiatives and responses” (ST6).

As one of the Deaf students put it:

“The interaction with hearing peers is minimal. They do not know our language, so I avoid them” (DS4).

Thus, the lack of interest from the Deaf in initiatives designed to promote interaction could stand as a barrier to successful inclusion.

The situation is different with HH students. The responses of all HH students showed that the hearing peers involved themselves in fewer interaction initiatives with HH students, who initiated more. This can be illustrated by HHS4, who commented:

“I communicate with them by the speech and understand them, and I often start the interaction, but when they do not understand me they neglect me”.

This was also confirmed by ST12, who stated:

“The HH students initiate more, but their initiatives are often not understood by their hearing peers, so later their peers neglect interactions with them”.

Hence, the lack of interaction initiatives from hearing peers could also stand as a barrier to successful inclusive education for DHH students.

The third issue of interaction with DHH students (***keeping or maintaining the interaction***) was also mentioned, as there was neglect from both sides. Commenting on this, one of the interviewees said:

“Interaction with DHH students usually does not continue long. Once the DHH or a hearing student understands the corresponding individual, the conversation will be finished and does not continue for a long time because of the difficulty in understanding each other. The communication is often one word or one sentence that has one meaning” (ST8).

Therefore, it could be concluded that a lack of interactions between DHH students and their hearing peers is unhelpful and could be one of the human barriers to interaction and inclusive education. More attention has been focused on interaction such as discourse and ‘negotiation of meaning’ as practices and sources of learning in the CoP. In their analysis of CoP, Barton and Tusting (2005) identify interaction as the ‘nursery for change’, where people are involved in the continuous production of discourse and ‘negotiation of meaning’ as they engage in activities, and this is a productive process for change and learning. This interaction is conceptualised as a convergence of two processes, participation and reification (Wenger, 1998). Participation in meaning-making always implies reification, and vice versa, because individuals in a CoP rely on mutual recognition and projection (Barton & Tusting, 2005). An interplay then takes place between participants during the interaction arises from mutual CoP (more detailed in Section 5.3).

8.3.1.4 Leadership and Authorities

Issues under the framework of the leadership and authorities in the mainstream schools emerged during the data analysis as an essential barrier to inclusion. These issues involved all administration staff in schools, local educational authority, and even the MoE, such as the school principals, supervisors, and policymakers. Therefore, by analysing the data, this issue can best be treated under four issues as shown in the Table 7.5, Appendix L, into specialisation, management and supervision, collaboration and support, and indiscipline.

The most interesting aspect is the issue of **specialisation** in DHH education, or at least in special education. Specialist participants complained about a lack of awareness of principals and supervisors in the administration of mainstream schools of DHH students. Their unawareness of the characteristics of DHH and students with SEN could lead to confusion in making critical decisions and shaping legislation. Furthermore, issues regarding organising and coordinating the work between the educators and other support providers emerged as a critical concern in the educational process for DHH students. The majority of the school principals and leaders in educational authorities are not specialists and have no training in DHH or special education. This is likely to have a negative effect on the educational process generally and could constitute a considerable barrier for inclusive education. The essential role of specialisation in inclusion was strongly present in every interview and is highlighted in the following quotation from one of the specialist teachers:

“The non-specialist leadership and lack of understanding of the characteristics of DHH students, their ability, and their individual differences and needs leads into a problematic status, as is happening now with integration, so some of the local education authority’s laws have been made without consideration of specialists’ views” (ST4).

Some other issues were also identified concerning the leaders' behaviours in mainstream schools, which could hinder the success of inclusion. The lack of **collaboration**, participation, and providing the support of the administrators in inclusive schools could undermine its success, as reported by ST6:

“There will be barriers to inclusion if the administrators do not collaborate with the teachers and participate in the educational process positively. For example, those administrators who do not meet the special needs requirements and do not use their power in demanding support services from the authorities”.

In the same vein, two of the specialists had had experienced difficulties and lack of cooperation with the administrative staff in the educational authorities when ordering the visual devices required by the DHH students in the classroom. One of them said:

“When I wanted computer and Data Show devices, I went to our school principal who gives me lots of applications to be filled and signed. He then told me he would move this request to the LEA, and that I had to follow it up. The LEA then moved it to the MoE. In both authorities there were different committees... then after four months I received a form to be signed that stated that those devices were my responsibility, which meant that any damage to them meant that I would have to pay the cost. I refused to accept them and bought them from my pocket” (ST4).

Regarding **management and supervision**, during visits to the four mainstream schools, the educational supervisors were never encountered, and school principals did not come to the special education classrooms for educational management. It was also observed that the school administrators avoided any matters relating to DHH students and always referred these to the specialist teachers. Furthermore, as was mentioned in the first theme, the full responsibility of the DHH students laid on the shoulders of the specialist teachers. Therefore, insufficient management and supervision could undermine the inclusion. This also was evidenced through a teacher comment:

“Successful supervision will manage the educational process of inclusion and distribute the roles between the regular teachers, specialist teachers, and other professionals” (ST2).

Likewise, the lack of **discipline and punctuality** by the leaders was also considered as a human barrier to inclusive education. The discipline in the role of leadership and authorities can take several important functions such as administrative issues mentioned chapter 7, as well as their critical roles in coordination and following up the administrative work in the educational process as a whole.

ST7 commented:

“We in the special programmes for DHH students have been suffering from a lack of discipline from the schools’ administrators, so what do you think will happen in the provision of the inclusive education? Indeed, we will face a significant barrier due to the lack of discipline”.

8.3.1.5 Teaching and Learning Management

Not surprisingly, several perspectives about barriers to useful inclusion for DHH students were associated with teaching and learning management related to regular classroom teachers. First were those classroom teachers who were unaware of variation of teaching and learning strategies and who relied mostly on the methods that focus on a **declamatory** style. For example:

“The teaching and learning method that depends on speech in regular classrooms do not fit the DHH students. This style alone is not compatible with hearing students too. How we can use it with DHH students? I suggest using the methods that make the senses of DHH students more active” (ST2).

Moreover, regular teachers who do not vary between collective and cooperative methods and individual and intentional methods. **Non-diversification of strategies** in teaching and relying excessively on speaking constitute barriers to inclusion. Specialist teachers reported collective teaching as it is practised to all students

together where DHH students learn from peers, whereas intentional teaching cares about individual differences between students as well as feedback. To clarify:

“In the collective ways, DHH students will understand, and in the individual ways, we will make sure DHH students have mastered these skills” (ST4).

ST1 added:

“Speech only, and avoidance of visual stimuli will undermine the benefits to DHH students in regular classrooms”.

All the DHH students mentioned that teachers who were not interested in **writing** as not being supportive or facilitative of the educational process as a whole. The lack of writing on the whiteboard and in their homework’s’ notes was mentioned as a barrier to their educational development in inclusive classrooms, this was illustrated by HHS2, who said:

“When we sit upstairs, the teacher does not write the lesson on the board. We sit without being able to follow the subject, and when the class finishes, the teacher says that we should write by ourselves in our homework books. The teacher doesn’t have time to write notes for all students”.

Furthermore, DHH students need constant **feedback** in the educational process when the teacher gives them a new lesson. However, some students complained that this was one of the biggest challenges in regular classrooms, as one of the DHH students indicated:

“I want him to sometimes give me individual information, correct my assignments and give me feedback by himself. I want him to make sure that all the students have understood the lesson” (HHS4).

Hearing students disliked **punishment**, but in the case of DHH students it could stand as a significant barrier to their inclusion. It was observed in the inclusive art classroom that the regular teacher in the school HHSC1 had punished one of the HH students over a minor issue, which caused shame and sarcasm from his DHH and hearing peers. This was also confirmed by the student HHS3 as a human barrier, and added:

“Regular teachers are often nervous because of the large number of students in the class. If I forget to write my homework, he might punish me. I want him to be patient”.

To sum up, all the issues documented in this section were analysed as they related to individuals involved in DHH education and inclusion as a context or community. The principles of CoP are widely used as a social-cultural perspective on understanding these human-related aspects. It could appear that individuals who contribute to human-related issues and who constitute a barrier to inclusion may not feel part of the community practising education for DHH students; in a community of practice, such as a school setting, all should feel that they belong and can participate; members interact with each other and with the external world to establish these relationships (Wenger, 1998). These social relations could reduce many of the human-related challenges to achieve inclusion. This raises the possibility that provision for DHH students represents a separate CoP that coexists alongside the CoP of mainstream provision which reinforces the argument that what is experienced is integration, rather than inclusion. A suggestion of a possibility, that each school has at least two CoP, rather than the single community of practice that was expected in each context.

8.3.2 Physical-Related Barriers

Educational environment-related barriers were widely acknowledged as a considerable sub-theme. Essential elements of these barriers were: availability and fitness of the physical environment, material resources and advantages, curriculum and assessment, and support services and programmes. These four issues emerged by analysing the data as essential barriers against better inclusion for DHH students in Saudi Arabia.

8.3.2.1 Availability and Fitness of Physical Environment

Availability and effectiveness of the physical environment for DHH students were mentioned broadly by the participants as the most effective barriers to the success of DHH students in the inclusive environment. Several issues related to what the general classrooms and schools needed if they were to be considered inclusive. These included: general facilities, accessibility and signboards, soundproof system, cleanliness, class size and structure, and school location.

Participants complained that the current school building as a whole was built for hearing students without any consideration for DHH students. Comments like *“the schools are prepared for hearing students”* (ST7) and *“were not prepared for inclusive education”* (ST6) were made to refer to **general facilities**.

Moreover, **accessibility and signboards** were reported as an important issue for DHH student, as reported:

“There must be signboards at all the school’s facilities written in the Arabic language or clarified by a picture in sign language” (ST1).

“Other pictures or descriptive signs need to be hanged on the corridors, facilitating the interaction between the students” (ST5).

The current educational environment also lacked **modifications to promote noise reduction**, yet an unquiet environment is considered to be a physical barrier to inclusion to be considered, as seen by ST2:

“The lack of, or an ineffective soundproof system causes dispersion for DHH students”.

Furthermore, it was observed that there were no carpets on the floor of regular classrooms, and the continuous movement of the tables and chairs of the students created a disturbance for DHH students. Another observation was that all the air

conditioners used a type of window that had an annoying sound. Those should be considered to inclusion to be applied.

All the DHH students mentioned the lack of **cleanliness** as a barrier to accepting the general environment of inclusion, as they were used to clean special classrooms. This could be due to a large number of students and a loss of control by the administration.

For instance, two of HH students said:

“The regular classroom is dirty. Inside the tables, there are the remains of mouldy food” (HHS4).

“Students often throw their garbage in the playground, so the building as a whole needs to be cleaned immediately, not only after school finishes” (HHS3).

Another reported physical barrier for coming inclusion was **the class size and structure**. The DHH students mentioned that the big class size, the students making a nuisance of themselves, not being able to see the whiteboard or hear the teacher as a result of being placed in the rear of regular classrooms, not being comfortable and a lack of control were all physical barriers in the regular classroom. Furthermore, the large number of hearing students in the regular classroom was considered by DHH students and their parents to be a big problem. By way of illustration, participants complained that:

“The number of hearing students is big and DHH students are very few in number compared to them” DS2.

“This pulls the interest from DHH students” (ST12).

The school location was mentioned before in the first theme of the current experience, but here it was considered as a barrier to inclusion. DHH students and their parents mentioned that the faraway school location created difficulty in reaching school daily. This was evidenced as one parent said:

“My Deaf son... takes a long time to arrive at his school due to the destination” (DSP1).

Moreover, the fact that the school was located near commercial highways was observed as a barrier, as the volume of car and truck noise was enormous. The traffic jams were also preventing early attendance by DHH students and extended the time being spent on the buses. To explain further:

“Some of general schools are located on public streets where there is more noise, preventing a quiet environment for DHH students and producing a negative effect on using hearing aids” (ST3).

8.3.2.2 Availability and Fitness of the Material Resources and Advantages

The suitability of inclusion for DHH students depends heavily on the availability and effectiveness of material resources and services of special education. This section reports findings on the visual means, hearing and sound transmission means, materials of learning and teaching, and special education advantages.

Responses related to ***the visual means*** were mentioned most often by all sets of participants as important physical barriers to inclusive education for DHH students. Half of the specialist teachers and four Deaf students described the unavailability and out-of-date of the visual means in regular classrooms as an essential challenge to inclusion. These included *“images, samples”* (ST1), *“data show devices, computers, videos”* (ST5), *“smart boards, projectors, YouTube, iPads, and even the descriptive signboards”* (ST6). This was considered more important to the Deaf students, in ST8’s estimation. These characteristics are summarized in an excerpt taken from one of the specialist teachers’ and one of the Deaf students’ interviews:

“In the educational environment, DHH students could not benefit unless there are visual stimuli, because they are the main attention-raisers for them” (ST1).

“I need learning tools that depend on sight” (DS1).

There was broad consensus among the participants that the essentials for the teaching of DHH students in an inclusive classroom included the effective use of **hearing and sound transmission means**. This included “*FM devices*”, “*hearing aids*” (ST2), “*microphones and sound amplifiers*” (ST11), as well as special devices like “*cochlear implants*” (ST10). In other words, as ST2 put it:

“Resistance to using hearing technologies constitutes a barrier to DHH students’ education in regular classroom”.

The importance of hearing and sound transmission means was particularly important to HH students, in ST8’s estimation.

One interesting finding was that there were insufficient **materials for learning and teaching** in regular classrooms. These materials were usually used for a particular subject, such as engineering tools for mathematics or maps for geography. To clarify:

“I assert that it is impossible for a specialist teacher to enter a class of DHH students without a teaching tool for each given lesson. If a regular teacher doesn’t grasp this, it constitutes a barrier to inclusion” (ST3).

Furthermore, **the special education benefits or advantages** could stand as a barrier to the provision of inclusive education as an educational option for DHH students. This could happen in a situation when there are parents or DHH students who prefer the financial advantages of special education rather than the benefit of inclusion. This was evidenced as it was stated:

“I will oppose any offer of inclusion unless there will be the same advantages as special education in this option” (HHSP2).

“When the DHH students are used to the advantages of special education and are afraid of failure in changing to an inclusive education” (ST8).

8.3.2.3 Appropriateness of the Curriculum and Assessment in Mainstream Schools

The DHH students and specialist teachers alike drew attention to the curriculum and assessment issues in the educational environment. There was a consensus that inclusive education involved using the same national curriculum with some support. However, participants considered the national curriculum and assessment without support and consideration for the diversity and individual differences in needs to be a barrier to some extent.

Opinions about **the national curriculum** varied, with most of the participants feeling that the current curriculum was broadly prepared for hearing students without any consideration for DHH students. Therefore, without modification for pupils with hearing loss, this curriculum would not be suitable and stand as a barrier. The complaints of DHH students showed that it was too long and too big, and contained linguistic redundancy and repetition, as an example of this, two of the DHH students acknowledged that:

“The [national] curriculum is so difficult; it contains lessons beyond our capacity” (DS1)

“because of its large content, I quickly forget much of it” (DS3).

The current **national assessment** was also considered to be one of the essential barriers for DHH students in the inclusive environment. The national assessment does not take into consideration the individual differences and needs of DHH students. Problematic issues were mentioned concerning the required minimum skills to succeed in it, as it expects the DHH students to read using a loud voice or recite the lessons using clear speech. Further, they have to memorise long sentences and texts and read them in front of the examiner in the same arrangement as the Arabic language. It could be argued that the arrangement of the words in the sentences in

sign language differ from their arrangement in speaking the Arabic language (Doherty, 2012a). Therefore, although these skills are required currently, all the specialist teachers considered this decision to be unfair, and act on their convictions rather than by what the MoF has decided. This was illustrated by two of the specialist teachers, who stated:

“Regarding the assessment, we have to meet the same demands as the national assessment of hearing students and achieve the same minimum skills to succeed, but if we run with this 100 per cent, not one of the DHH students will pass, so we modify this assessment. For example, if the DHH students have mastered 50 per cent of the skill, we will pass them, although students are supposed to master 100 per cent” (ST7).

“The existence of such difficult minimum skills that could not be passed by DHH students is a barrier to the success of inclusive education” (ST9).

8.3.2.4 Availability and Fitness of the Support Services and Programmes for DHH Students

It is apparent from the responses analysed under the sub-theme of the physical-related barriers that interviewees saw ineffective support services and programmes as the biggest barrier to DHH students' in inclusive education. These services are dependent on participants' views and emerged from interview and observational data.

Unavailability and inactivity of **the speech-language services** were mentioned broadly as a vital service for DHH students. Therefore, any absence or the deficiencies in this service stand as an obstruction to interaction and active inclusion. DHH students confirmed the critical role of this service and claimed that this service must accompany them in inclusive schools. For example, one of the specialist teachers mentioned a considerable issue regarding this service, stating:

“Some of the speech-language teachers have focused more on the speech part and forgot the language disorders part, which is considered to be essential to the DHH students” (ST8).

It could be argued, then, that ineffective speech-language services could hinder their benefits in an inclusion setting.

The other participants had a different view, putting **the psychological services** first. They believed that in addition to the services provided for DHH students, the effect of these services extends to include the hearing peers, families, and regular teachers. Participants mentioned that the psychologist who does not care about the surrounding environment of DHH students (ST3); does not invite the families to participate (ST11); does not prepare the hearing peers and teachers to welcome the DHH students (ST12); and does not encourage the DHH students and solve their problems (DS4) was considered a heavy burden on inclusion.

Only one of the specialist teachers mentioned the vital role of **the student counselling services** provided for DHH students in inclusive schools. He said:

“I am interested in the academic achievement of DHH students in inclusive education, and I see the function of the student counselling service as a considerable factor in hindering or facilitating this process” (ST5).

This implies that the current mainstream provision was not likely to be shaped by the perspectives of DHH students nor specialist teachers. Their beliefs are important in forming provision for DHH students and their voice needs to be brought close to the centre of shaping provision of DHH students.

8.3.3 Influence of Barriers

The specialist teachers' perceptions of the human and the physical-related barriers can be said to play a critical role in inclusive education. Hence, this final sub-theme encompasses two issues, which cover the perceived influence of the barriers for DHH inclusive education. This is related to the perceived barriers discussed above and

identifies the most influential barriers and the most influential category as the major issues.

8.3.3.1 Most Influential Barriers

Issues related to the most influential barriers were not particularly prominent in the observation data nor the interviews with DHH students or their parents. The opinions of the specialist teachers differed as to whether human-related barriers or physical-related barriers had a strongest effect as a barrier.

Over half of the specialist teachers expressed broadly similar views, identifying **the human-related barriers** as generally the most influential. It was evident that the human-related barriers needed more time and effort to be resolved while the physical-related barriers could be resolved immediately by the presence of sufficient budgets. Issues such as attitudes and professional training were mentioned as accumulated barriers that could not be resolved rapidly. This is reflected in the following interview excerpt from two of the specialist teachers:

“The interest should be more in the people involved in inclusive education, because the equipment and educational environment can be prepared quickly, whereas the human sources need more time to be trained to change their attitude if it is unconstructive” (ST2).

“The human-related barriers have more power, while the educational environment-related barriers could be solved immediately. Moreover, a good teacher can make a successful environment by simple things, but it takes a lot of effort to get a teacher to accept this new situation of teaching DHH students” (ST11).

Another reported option was expressed by three of the specialist teachers who considered the **physical-related barriers** to have the strongest impact. By way of illustration, they commented that:

“Through the existence of the consultant teacher [the specialist], the experience exists, but this experience cannot be beneficial if there is a deficiency in the educational environment” (ST3).

“If there is a lack in the visual and hearing tools and soundproofing, this educational environment will be unsuitable for DHH students” (ST4).

“The physical educational environment is the most important factor. The teacher could be given training, and the issue would be solved. We could also give him a typical tutorial to follow, but the educational environment which is suitable for DHH students is more complicated in the case of the hearing and visual preparations” (ST6).

Only two of the specialist teachers (ST7 & ST12) did not differentiate between the importance of **the human-related barriers and the physical-related barriers** as the most influential barriers. They viewed their effects as equally important in inclusive education for DHH students. Their perspective was that these barriers overlapped and complemented each other. The essential role of these barriers in affecting inclusive education for DHH students was strongly present in the following quotation from one of the specialist teachers:

“Both of them have common and combined factors. If we prepare the teachers, we should also prepare the classrooms. It is impossible to prepare the teachers if there is a lack of an educational environment such as the presence of devices or hearing aids, and it is impossible to prepare the educational environment if the teachers are not prepared or don’t have complete comprehension of the situation of students with hearing loss” (ST7).

It could be argued that these barriers overlapped; however, the human-related factors mostly have more effect in shaping the physical-related factors, not vice versa. The human systemic failure is generally beyond the schools' environment (systemic support is detailed more in Section 8.4.1). The poor physical environment is ultimately a human-related problem, if the leaders care or understand enough; they will make the necessary changes in the school's environment and overcome the physical-related factors.

8.3.3.2 Most Affected Category

Issues related to the most affected category were not particularly prominent in the observation data. Specialist teachers were asked: Who will be more affected by these barriers, Deaf or HH students and why? The twelve specialist teachers varied in their perspectives and the reasons for choosing the affected category of hearing loss.

Over half of the specialist teachers believed that barriers to inclusive education had a greater effect on **the Deaf**. The reasons were different, and some argued that the Deaf had a different language from the bigger community's language. Furthermore, sign language was difficult to use by the regular teachers, who required the continuous presence of translators in most cases. ST1 & ST2 & ST5 & ST10 said this. The effect was considered to be lower on the HH students, as they use the same language as the bigger community. To clarify, ST3 specified that:

"The HH students can still hear somewhat, which helps them to overcome the communicational and interactional barriers of inclusion".

ST6 also felt that the Deaf faced greater difficulty, since they had:

"Greater need for the learning and teaching tools and devices and greater need for quiet and non-dispersion".

Lastly, ST9 said:

"It will be harder on the Deaf because they like the isolation more".

However, three of the specialist teachers had a different opinion; they considered **the HH students** were more affected by inclusion's barriers. They felt that the Deaf had their particular language and were professionals in that language, and everything could be translated to them and could be understood well by them. Whereas the HH students mostly face challenges in their language, and the hearing peers are the proficient who could hinder the communication and interaction in the wider

community's language. This perspective is summarized in the following specialist teacher's excerpt:

"It's more difficult for the Hard of Hearing students. You could deliver any information to Deaf students by sign language, which is their official language and they master it well. All of the Deaf are masterful at sign language, while HH students encounter linguistic difficulties, and the hearing people around them are the professionals in this language, not the HH student. They often need to repeat their words three or four times to be understood, and they ask their correspondents to repeat their speech in a louder voice, often twice as loud, so that they can understand them" (ST11).

Only two of the specialist teachers (ST7 and ST8) felt that inclusion's barriers affected **the DHH students equally**. To explain this further, one of them said:

"both of them face linguistic barriers whether in sign language, which is not understood by hearing people, or in the spoken language where the DHH students face challenges" (ST7).

A full discussion of the barriers theme is combined with that of the following theme of the support required in the next section (8.4), given the overlap between the barriers to successful inclusion and the support required to ensure that success. The respondents have often described the support and barriers to inclusive education, identified through the qualitative methods, as existing in a single factor.

8.4 Support Required for Successful Inclusion.

This section is devoted to presenting the theme that emerged in association with perceptions about the support required to promote inclusion for DHH students. Perspectives regarding required support for successful inclusive education for the DHH students identified across the interviews with the participants is summarised in Table 7.5 (Appendix M). In the section below, sub-themes associated with this theme are presented. The three groups of participants mentioned in this key theme fell into a wide range of domains for human and physical sources by providers. However, after

the coding and analysis procedures, described in the methodology, these means were classified and organised into six primary sub-themes.

8.4.1 Kind of Support Required

When asked about the support required for successful inclusive education for DHH students, the participants were unanimous in the view that there must be a support to develop the current situation to be inclusive. However, they mentioned three kinds of support were required. These included financial support, intangible/moral support, and legislative and systemic/governmental support.

Per ST2:

“If the money existed, all these problems would be solved overnight”.

Therefore, ST2 and some of the participants considered that **financial support** was vital to successful inclusion for DHH students. ST9 went into further detail on this kind of support, commenting:

“Whenever the financial support is there, the teachers will work on developing themselves and their educational environment for the students. Financial support could also be considered to be one of the advantages that will cause regular teachers to compete to include DHH students in their classroom whenever it is provided”.

Other participants mentioned the importance of financial support in ensuring teaching and learning means, incentives for DHH students and teachers (ST6), rewards, and training (ST10).

However, a doubt is raised here that financial incentives giving to pockets lead to a true inclusion rather than a real desire for the benefit of DHH students. It was found in Section (8.3.2.2) that some of the special education financial benefits or advantages could stand as a barrier to inclusion in some cases.

Another reported perspective regarding support mentioned by ST5 and ST8, was **intangible/moral support**. This kind of support could be in the form of encouragement, thanks, advice, and training. This perception was expressed by one of the specialist teachers in the following excerpt:

“Moral support is needed. We should support all the educators and professionals in doing their jobs totally, and we should also stimulate them to be successful in inclusive education. Lastly, they need thanks to show appreciation for what they are doing” (ST5).

Legislative support was mentioned only by ST1, who insisted on separating it from the above kinds of support. He said:

“The governmental support is more specialised in laws and regulations where inclusion needs only one resolution to be applied. We need applicable laws and regulations in place. We need an understanding amongst the authorities who take into consideration the individual differences and needs of DHH students” (ST1).

This point may have a kind of logic; systematic/legal requirements could include a solution or control for both the human and physical-related factors in case of having policymakers who care and understand enough. However, legislating for change can lead to performative compliance, rather than a genuine ethos of inclusion.

Nevertheless, over half of the participants did not differentiate between the kinds of support required, and mentioned **all the above kinds together**, as they commented:

“All kinds of support are needed to succeed in inclusive education for DHH students” (ST3).

“To meet the needs of inclusive education, all kinds of support are required, whether financial, moral, legislative, or even psychological. When the equipment and tools are available there remains the intangible support and encouragements to the success of the schools and families” (ST4).

8.4.2 Whose Support is most Needed?

The second sub-theme concerns participants' perceptions of whose support is most needed. It seemed that the codes of this sub-theme had integrated easily with the codes of the Section (8.4.3) (who most needs to receive this support) because they give more than a mutual meaning. Of these, the Ministry of Education (MoE) and the Local Educational Authority (LEA), specialist teachers, families, principals, and hearing peers could be included.

Over half of the specialist teachers believed that the support of **the MoE and LEA** were needed most. ST1 illustrated that recently:

"The Ministry of Higher Education and the Ministry of Education have merged into one ministry, so the demands of research and legislation lie with them".

ST3 chose the MoE and LEA because they are:

"The basis of education and because they have counsellors, supervisors, departments' directors and all the policymakers. They are the decision makers in providing the support".

However, ST10 placed more emphasis on the role of the special education departments, both in the MoE and LEA. This was evidenced he believed that:

"They are responsible for the current provision and programmes and all the other educational options, so, in the future, they will also be responsible for inclusive education and for any support that will be demanded of them".

Two of the specialist teachers and three of the DHH students felt that **the specialist teachers** should mainly provide this support, and should be:

"The counsellor teachers in the daily follow-up of the success of DHH students in regular classrooms" (ST11).

The DHH students had the view that the support came from the specialist teachers in the form of preparation and encouragement. This as one of the DHH students stated that:

“special education teachers could facilitate everything, so having them is the biggest support” (HHS3).

Three of the specialist teachers and one of the DHH students saw **the families** as the ones whose support was most needed. This support could be in the form of “collaboration” (ST1), “accepting the new situation, preparing and encouraging the DHH students” (ST2), and by considerable follow-up of the DHH students in general education (ST4).

One of the specialist teachers and one Deaf student mentioned **the schools’ principals**, as they had full control over the support, as ST6 put it:

“The school as a whole is in the hands of the principal; if he tries hard to provide considerable support, you would see good results. As principal, he is the link between the teachers and administrators in the school. He’s also the link between them and the educational authorities providing the support”.

One of the specialist teachers and four of the DHH students mentioned **the hearing peers** and felt that:

“The hearing peers are required to provide this support by a continuous interaction and communication with DHH students as they learn faster from their peers” (ST8).

One of the DHH students added:

“I need to ask them frequently about the lessons, if they don’t mind” (DS4).

Lastly, ST12, who did not specify a particular source of support, called for greater awareness, including:

“All people involved to provide their diversified support, as the needs are also varied”.

An implication of identifying whose support is most needed has pinpointed elements of support, individuals and agencies in charge as an important aspect mentioned the work of Ainscow (2005a). As he said, these elements may encourage schools to achieve successful inclusive education once they are well understood by principals, social and political leaders, media journalists, and the religious leaders within the local community (Ainscow, 2005a).

8.4.3 Who Needs to Receive this Support the Most?

There are a number of similarities between this sub-theme and the second sub-theme. However, a comparison of the two findings reveals that the third sub-theme concerns participants' perceptions of who most needs to receive this support and what kind of support do different stakeholders need to promote inclusion? It seemed that the codes of this sub-theme consisted of DHH students, families, regular classroom teachers, special education, and all school resources.

Four of the specialist teachers and five of the DHH students felt that ***the DHH students*** were the ones who most needed to receive this support directly, as an example:

“They need this support as they are the intended or the targeted individuals in the process of inclusive education” (ST2).

Furthermore, they are:

“The benefits to students, and need this support in everything they do” (ST10).

It was also mentioned that the DHH students needed this support to be prepared “socially, educationally” (ST11), and “psychologically” (ST6).

The families were also mentioned by two teachers and two of the DHH students, to clarify:

“The cornerstone, who should be supported to accept and encourage the inclusion of their child” (ST4).

One of the DHH students said:

“I want my family to understand that I want to succeed in general education and go to university and become a teacher, engineer, or even a doctor”.

This support could also be provided to the families in the form of:

“Programmes and ways in the home which would raise the linguistic level of DHH students” (ST8).

The regular classroom teachers were also mentioned by three of the specialist teachers and one of the Deaf students DS1 as the ones who most needed to receive this support. These teachers were in the first line of inclusion, where all these processes revolved around their acceptance and quality of work. To be specific:

“We should work hard to improve their skills in achieving successful inclusion for DHH students” (ST9).

The support provided to the regular classroom teachers should be in the form of:

“Providing the appropriate training and development, equality between the specialist teachers and regular teachers through financial stimuli or support, because the regular teachers will take the role of the specialist teachers” (ST12).

This view was supported by ST1, who felt that the regular teachers needed this support, as he would be the one responsible for the DHH students and would therefore need support in the form of training in the teaching approaches, and in DHH students' characteristics.

One of the specialist teachers also mentioned that **the special education** agencies were most in need of support:

“Special education agencies, in general, very much need this support. To become a better society, we should empower them in their role of determining the needs of special education services. The agencies need support if they are to accomplish this” (ST7).

Finally, two of the teachers and one of the DHH students believed that all **the school resources** in the school, whether human or physical, needed this support, without differentiation:

“The school as a whole, through all its human resources and its physical resources, for each part, has a particular need which should be supported to ensure successful inclusion” (ST3).

“Each person who has contact or a relation with DHH students needs to receive this support – even the school’s guard” (ST5).

8.4.4 What Support is Required from the MoE and the LEA?

When asked about the support required from the MoE and the LEA, participants’ perceptions were unanimous in the view that these authorities have a responsibility as supporters. However, the views of the participants varied regarding the kind of support required.

Raising awareness and development as a role of the MoE and LEA were described as a support required by three specialist teachers. For instance, as ST6 put it:

“The thing wanted from the MoE is an increase in awareness about the importance of inclusive education and the provision of a successful model from abroad where the countries have succeeded in applying it. They should bring experts and send the stockholders and policymakers to schools to experience inclusion for themselves”.

As the MoE and LEA are the decision-makers, it was also demanded that they provide **legislative support** through sensible laws and legislation that serve the process of inclusive education. Namely:

“The MoE should issue a law for inclusive education which obligates all sides to apply it and help to move it forward as a right for DHH students” (ST12).

Moreover, other participants emphasised the importance of the MoE and LEA taking into consideration specialists' and DHH students' views when making any of these laws and legislations. For example, as ST2 commented:

“At the time of issuing the laws for inclusive education for DHH students, the MoE and all the other authorities must consider the perspectives of the involved people and experts in this field”.

The majority of the DHH students and three of their teachers considered that providing **appropriate material sources** was the most required support from the MoE and LEA.

For example:

“All the hearing needs in terms of devices and soundproofing” (DS2)

“All the means that help successful inclusion, such as sources, tools inside the regular classroom and even the awards” (ST5).

The availability of **professional human resources and active supervision** was a kind of support required, particularly from the MoE and LEA. This was the view of two of the specialist teachers and one of the DHH students. By way of illustration, they claimed that:

“Providing professional human resources who have no less than a master’s degree are required” ST11

“Professional supervisors in the MoE and LEA are needed to arrange the process of inclusion successfully”.

The DHH student HHS3 added:

“The absence of anyone from the support providers will affect my learning negatively”.

The specialist teachers ST8 and ST2 mentioned that the support required from the MoE and LEA should be in the form of providing **special programmes and services** for DHH students, including:

“Everything related to sign language, support services, and assistant programmes” (ST2).

However, ST8 focused more on the linguistic programmes appearing at an early age for DHH students. To explain further, he said:

“Start immediately by the language enrichment programmes such as bilingual-bicultural philosophy (BBP), auditory-oral approach (AOA), auditory-verbal approach (AVA), and lip reading”.

Collaboration was also part of the support required, particularly from the MoE. ST7 demanded this collaboration to be between the MoE and the LEA. Namely:

“Several decrees that come from them are contradictory, which indicates that there is no collaboration or coordination between them”.

Teacher ST2 also demanded that the MoE had to collaborate with the mainstream schools. He said:

“The MoE must facilitate the process of inclusive education through immediate collaboration, interaction, and communication with the inclusive schools, where the support will be direct”.

One of the specialist teachers also mentioned **financial and intangible/moral** support as a kind of support required from the MoE, as he recommended, this could be by:

“reviewing the salaries and incentives for including DHH students in the regular classroom, so that through financial support we can bring better teaching competencies, with the goal of training regular teachers” (ST9).

Different perspectives emerged from the participants' views; however, the view that providing legislative/systematic support and collaboration by the MoE and the LEA through sensible laws and legislation could facilitate the process of inclusive education. This kind of support with more care from policymakers and supervisors could integrate the other wishes and claims from the educational authorities. Ainscow's (2005a) recommendations about how to support a successful inclusive education provision across different cultures includes the recommendation to use a

style of language and create a legislative situation that could be applied to encourage change (Ainscow, 2005a).

8.4.5 What Support is Required from Educational Institutes?

A variety of perspectives were expressed regarding professional training. Teacher colleges/universities were responsible for pre-service training, and educational training centres were responsible for in-service training. Both of these educational training agencies recently became part of the MoE. It was evident that all the specialist teachers agreed on the importance of professional development as essential support, but they varied in their views regarding the subjects of the courses. Moreover, their views were also divided when asked which was more effective: pre-service or in-service training.

First, the subjects of the courses both in pre-service and in-service training were mentioned broadly, with five of the teachers stressing that this training focused on means of **communication with DHH students**. To be specific:

“The interest should be more in courses on means of communication with DHH students because these are key to interaction and successful inclusive education” (ST2).

Five teachers also described the importance of implementation of **inclusive education** in terms of being able to;

“understand what is wanted when inclusion is applied” (ST1).

This point is logical as it implies that some difficulties and differences could be encountered between theories and practices of some provision. Therefore, we may face challenges in how to put the theory of inclusion in practice where the language used in training is hard to implement. Ainscow (2005a) made recommendations to use a style of language that is applicable and encourage change.

The educational training agencies were also called on to include courses with subjects about **special education and characteristics of students** with SEN/DHH. The special education courses needed to teach how to “*know all the categories of SEN*” (ST12) and their “*individual differences*” (ST5). Furthermore, knowledge of the “*characteristics of DHH students includes the unique educational process of DHH students*” (ST11).

One of the specialist teachers, who had a master’s degree, had a different view regarding the role of the training agencies in terms of providing support. He called on them to:

“focus more on conducting research and studies about the Saudi context and show their particular results to be subjects of the training courses rather than providing a given subject” (ST6).

Secondly, as mentioned above, the specialist teachers’ views were divided equally about the effect of **the pre-service and in-service training**. One side argued that “*educating teachers beforehand saves time and effort*” (ST8), adding that “*there is more opportunity to expand the content of these subjects*” (ST11). The other group saw that “*in-service training has more effect because the teachers have gained the experience and now know what is needed*” (ST3). The teacher ST10 went further in this point and said:

“The subjects in the pre-service training become out-dated, so we need continuous in-service training to update our knowledge and learn the latest developments” (ST10).

A variety of perspectives were therefore expressed regarding professional training, and the issues mentioned above highlighted the importance of support from teacher colleges/universities and educational training centres.

8.4.6 What Support is Required from Human Resources?

Consistently within the responses discussed above, participants believed that human resources' support should have top priority if successful inclusive education for the DHH students was to be achieved. The analyses of the generated data showed that all the involved people in inclusion have a role in providing this support.

The main human resource to provide this support was **the regular classroom or general teachers**, as an example, ST1 demanded that they should:

“Obtain continuous development so as to know the goals of inclusive education and how to incorporate active teaching and learning strategies”.

ST3 stated that they should have a positive attitude by:

“Preparing and stimulating the hearing peers to welcome the DHH students”

To which ST9 added:

“Preparing the educational environment to be appropriate for the DHH students”.

Finally, one of the Deaf students wanted them to *“learn sign language”* (DS1) as vital support.

Two of the specialist teachers and two of the parents agreed that the responsibility of the support to be provided belonged to **the school principals**. These responsibilities included active leadership and management, such as maintaining the staff's *“discipline”* (HHSP1) and *“participation and collaboration”* (DSP1) with and between them, as also evidenced by one of teachers that:

“The role of the school principal becomes the most important role by exploiting and controlling all the school's possibilities [the human and physical resources] to the success of DHH students in regular classrooms, and their roles in the coordination between all the roles of all school staff” (ST12).

The support of **psychologists** working in inclusive schools was also demanded. This was mentioned by two of the DHH students and one teacher. To be specific, ST4 defined their role as:

“Striking a balance between DHH students and their hearing peers in preparing them to accept their new situation by good interaction and cooperation as one family”.

HHS3 assigned their role as also including persuading the families of the DHH student to accept inclusion.

The speech and language teacher’s support was also called for, as three of the DHH students and one teacher mentioned this:

“I need him to strengthen my speech with hearing people” (HHS4).

“The speech and language teachers should know that their role is not only for speech disorders – it also includes the language aspect, where their function requires them to increase linguistic outcomes for DHH students” (ST8).

One of the parents also mentioned the importance of the supportive role of **the student advisor**. He said:

“The student advisors in the schools need to increase the awareness of the hearing students regarding the aim of inclusion of DHH students, demonstrating to them how they can also benefit from the DHH students’ experiences” (ST10).

One parent HHSP2 mentioned that this awareness also needed to be presented to *“the DHH student, as a useful support in benefiting from the diversity”*.

It was also felt that **the hearing and DHH peers** also needed to provide their support as part of successful inclusive education for DHH students. A positive attitude and continuous interaction between them were called for. To clarify:

“The hearing and DHH students learn from their peers more and quickly” (ST5).

One of the DHH students wanted:

“The hearing students to respect [their] abilities and deal with [them] kindly”
(HHS1).

DS3 added:

“I ask the Deaf students to avoid isolationism and to be friendly”.

Wenger (1998) points out that we all belong to communities of practice. It could be argued that maintaining warm and respectable social relationships between community members promote the chance of learning and mastering skills that could be gained amongst these members. In the school setting, learners and teachers have the opportunity to interact and learn about each other’s perspectives, and the views of the DHH students and the specialist teachers could shape the development of an inclusive ethos. However, for this to happen, individuals have to have the confidence to exchanges views in an open and trusting atmosphere.

It was evident that **families** were also one of the human resources needing to provide collaboration, participation, and encouragement for inclusion to succeed. By way of illustration:

“I support inclusion for my son, and all families need to do likewise. I believe that if they collaborate by encouraging their children, everything will be fine”
(DSP1).

One of the DHH students added:

“I hope my family supports me to be in my neighbourhood school, inside a hearing student classroom. I want to be a pilot, an engineer or a doctor in the future” (HHS2).

8.5 Chapter Summary

This chapter is associated with participants' views about how to move towards inclusive education for DHH students in Saudi Arabia. It was suggested also answering these questions could be seen as levers for the improvement of DHH education and inclusive provision.

The findings of the inclusive education theme have revealed an encouraging positive knowledge amongst specialist teachers that multiple understandings appeared. Various elements of meanings confirmed that inclusive education was a complex concept. All the specialist teachers agreed that inclusion is clearly different from integration, and they varied in their codes of differences. Their knowledge demonstrated comprehension of the social and interactional models. There might be more emphasis on the socio-cultural aspects for providing equal opportunity and access to inclusive education and social belonging. These multiple understandings and knowledge could be constructed by positive views related to a high quality pre-service training as part of their education in Saudi universities.

The second theme in this chapter is related to participants' perspectives of barriers to inclusive education for DHH students. Participants demonstrated that barriers associated with human resources were the first barrier against a successful inclusive education for DHH students. Furthermore, physical-related barriers were also widely acknowledged as a considerable factor. The third subtheme is related to the influence of these barriers, identifying which barriers (human or physical-related barriers) are the most influential and which category (D or HH) was the most affected. The participants also varied in their perspectives and the reasons for choosing the most affected category of hearing loss.

The third theme of how to move towards inclusive education for DHH students in Saudi Arabia is related to the support required for successful inclusion. This key theme fell into a wide range of domains for human and physical resources by providers. Kinds of support required are financial, intangible/moral, and legislative support. There was a similarity in views regarding those who most need to receive this support and those who are most required to provide it; this showed a variation in human resources and educational agencies, where some of them (notably families) were required both to provide and receive support. The perspectives are not unanimous, and people will disagree on particular points. Therefore, the topic of inclusion and support required needs a wider debate because experiences of many stakeholders are involved in this case.

To sum up, most of the barriers and support required are related to human and physical-related factors that are likely external from the DHH students' abilities or identities. These factors are most associated with surrounded environmental sources that have the flexibility to be changeable or promoted to the provision of inclusion for DHH. Therefore, the findings related to the barriers and the support for successful inclusion will be discussed together in the next chapter. The barriers theme is combined with the theme of the support required, given the overlap between the barriers to successful inclusion and the support required to ensure that success. The respondents often described the support and barriers to inclusive education, identified through the qualitative methods, as existing in a single factor. For example, support services were perceived as barriers when they were not available or active to the needs of DHH students. Moreover, in addition to the human and physical-related factors, systemic/legislative factors emerged as having more influence on this case. The systemic issue is associated mostly with the human-related factors, but it could

be wider in case of its effect on decision-making (discussed further in Chapter 9). The human systemic failure is generally beyond the schools' environment and has most effect on shaping the physical-related factors; the inadequacies of the physical environment are ultimately a human-related problem. Therefore, it could be concluded that systematic factors could have an impact by offering a solution or control for both the human and physical-related factors.

Chapter Nine: Conclusion: Implications and Recommendations for Inclusion

9.1 Introduction

The perceptions of specialist teachers, DHH students and their parents have proved invaluable in illuminating their experiences in mainstream education and what is required. This will help to build a set of recommendations and bring to a conclusion this investigation of DHH inclusion in the Saudi context. The ensuing conclusion is divided into five main parts: summary and discussion of the main findings; contribution of the study; implications and recommendations for policy, training and practice; difficulties, limitations and future research directions; and a summary of how this addresses the research questions.

9.2 The Summary and Discussion of the Main Findings

As discussed in chapter one (Section 1.1), Inclusive education for schoolchildren with SEN, including DHH, is considered to be one of the most important issues in educational systems globally, especially in terms of how it is understood and practised (Hornby, 2016). Recently, in Saudi Arabia, the government has become interested in inclusive education (Nader, 1980). However, it is almost certain that the vast majority of the previous studies carried out in Saudi Arabia have explored the views on the integration of parents, principals, and staff who have not specialised in DHH education; there have been no studies which involve DHH students and specialists (Allothman, 2014).

This study therefore explored the experiences and perceptions of DHH students and specialist teachers in the Saudi context. From a consideration of DHH students' rights in general and equal opportunities, it was important to consult DHH students and specialists as experts about their current experience in mainstream schools and inclusive education, its barriers and support, and participation, as they are the ones

who have had the most direct involvement in mainstream schools. These people as participants are therefore considered to be the best sources of information in this matter, as they have the firmest reality on the issues connected with inclusion, having directly experienced this mainstreaming. It is also important that all the teachers in this study were specialist teachers of DHH students and therefore would be extremely knowledgeable about these issues (Chapter six, Section 6.2.2). Moreover, while there is considerable literature on inclusive education in Western countries such as the UK and the USA, as an example, differences in sociocultural factors put pressure on the concept of inclusive education and ways of successfully developing it. This difference also means that this study makes a useful contribution to relevant literature on this topic in the Saudi Islamic context (Chapter Four, Section 4.3).

Eclecticism, rather than one single point of view, is employed to produce broader visualisation in the field of research. This framework comprises social-contextual theories, particularly CoP theory, Ainscow's Model (2005), and the interactional model of disability, due to their usefulness in understanding learning processes, inclusion, and SEN. Hence, the study utilised thinking from multiple perspectives in the learning framework, research methodology, and data analysis of this investigation (Chapter five, Section 5.6).

Thus, the overall rationale of this study lay in generating knowledge about the current experience, to support Saudi policy and practice to work toward and develop successful inclusive education for DHH students. The discussion should be understood in light of the study's objectives:

1. To document the experience of DHH students and specialist teachers in mainstream schools in Saudi Arabia.

2. To examine the concept of inclusive education and how it relates to the specialist teachers.
3. To identify dimensions that support successful inclusive education of DHH students and to highlight the barriers to inclusion.
4. To develop a set of recommendations for Saudi policy that support the functional inclusion of DHH students.

To address the research questions and to achieve the aims of this study, data were generated in a qualitative case study. Semi-structured interviews with eight DHH students, twelve specialists, four parents, observations in mainstream schools, and documentary analysis have given a broad picture of the themes under investigation (Chapter five, Sections 6.3; 6.5). The case study has covered five main aspects: participants' experiences in four mainstream schools, their perceptions of the educational options for DHH students in the Saudi context, specialists' understandings of the phrase 'inclusive education', and their perceptions of barriers to inclusion for DHH students, and the support required to promote inclusion.

As shown in Chapter Five (Section 6.5.1), the participants who took part in this research may be seen to belong to particular communities of practice and were all involved directly in inclusive schools for DHH students. Communities of practice are connected to groups having constant discourses in workplaces and offering chances for what the members can or can't talk about (Perip, 1991). There were four separate groups of participants or four communities of practice who took part in the current research project. Each group included specialist teachers, DHH students and parents in four boys' inclusive primary schools for DHH students in Riyadh, Saudi Arabia, who took part in the interview data-generating part of the study. However, this qualitative

case study is significant in the context of Saudi studies; building on in-depth description of these particular participants' views, the study has actually revealed a doubt, or at least the suggestion of a possibility, that each school has at least two CoP, rather than the single community of practice that was expected in each context. Therefore, the four schools might not be unitary communities of practice, rather a combination of a DHH CoP and mainstream CoP, because of the demonstrated experience of what is effectively integration. This raises the possibility that provision for DHH students represents a separate CoP that coexists alongside the CoP of mainstream provision, reinforcing the argument that what is experienced is integration, rather than inclusion.

Data were subjected to theoretical thematic analysis, as defined by Braun & Clarke (2006); following their procedure for coding and analysing the qualitative data (see Chapter Six, Section 6.5.3). This analysis has identified the key findings under four headings: the experience of mainstreaming, educational options, understanding of inclusion, and human- and physical-related factors.

9.2.1 The Experience of Mainstreaming

This study revealed a frequent unwillingness to name the current experience as inclusion and instead naming it by other phrases relating to integration. This could be a result of participants' personal knowledge of 'inclusion' as a newer concept while recognising that that the current experiences resemble integration, as mentioned in Chapter Four (Section 4.5):

“During the 1960s, new ideas of normalisation, mainstreaming and, later, integration were born, and the demand for the least restrictive environment for every child was set. ... [However,] integration and mainstreaming have, since the 1980s, been replaced by the inclusion movement” (Jahnukainen 2015: 60).

'The least restrictive environment' and other concepts, such as 'special classrooms', are likely to be used interchangeably with the term 'integration', as they emerged in a similar period and had similar programmes of provision at that time. It is almost certain that participants in the current study felt it was inappropriate to use the term inclusion alternatively with terms relating to integration, because they would expect different features and practices to distinguish between these two concepts (Bendová and Fialová, 2015). Thus, it could be argued that the current experience could be labelled as 'integration' since this term covers all the words given by the specialist teachers to describe the practice they saw in mainstream schools for DHH students. , The word 'integration' is, however, used officially in international research and studies (Jahnukainen, 2015). All the characteristics and practices of the current experience of DHH students in mainstream schools, as outlined in Chapter seven (Section 7.2; 7.3) are compatible with the educational option of "integration", as mentioned in the Warnock Report (Warnock, 1978). It is also shown in the comparison table (see Chapter Four, Section 4.5; table 4.3) of the practices of inclusion and integration adopted from Bendová & Fialová (2015, 814). Therefore, one possible implication of this is that in the remainder of this chapter, the term "integration" will be used to represent the current experience of DHH students in mainstream schools.

As discussed above, this study revealed that the experience of DHH students and current practices represent the practices of integration and differ from the practices of inclusion presented in Chapter 4 (Section 4.3). There was also a consensus amongst specialist teachers that there is likely to be a delay in implementing inclusion as an educational option (Chapter 7, section 7.3.3). A possible explanation for this finding may be that a variety of contextual factors limits the power of specialists and stakeholders in mainstream schools for DHH students and make them follow Saudi

policies and decisions. However, this finding must be interpreted with caution. This could be a result of a lack of clarity in decision-making about inclusive education and its practices in Saudi educational policies. It seems that most of these policies are about the least restrictive environments (integration) and associated practices. The term “policies” refers to all the governmental, royal and ministerial laws, resolutions, decisions, rulings, decrees, awards, resolves, codes and conventions regarding the Saudi educational system involving the Council of Ministers, the Consultative Council, and the Royal Court. Furthermore, based on these policies (see Chapter 2, Section 2.2) the MoE built the Document of Organizing Special Education (DoOSE) (see Section 2.2.7) in 2002, which concerns the practices and roles of each of the people and agencies involved. The DoOSE was also revised in 2016 to further explain educational practices. However, both versions still represent the practices of integration, as they are based on the same old policies, which never included the term “inclusion” nor its practices despite the existence of this term in higher education in the context of Saudi universities.

Further, a likely explanation for the practices documented in this research project is that all the roles and practices were explained in the DoOSEs for the communities practising education for DHH students who match the current experience in mainstream schools, including the budgets, the required support, and the roles and the practices for each member involved (DoOSE, 2016; Ministry of Education of Saudi Arabia, 2019). This could confirm the argument that the ethos of integration is still represented in the DoOSE’s older policies (closely related to the discussion presented at Section 2.2). Therefore, it was perhaps unsurprising that the current practice or experience represented integration rather than inclusion, as the data analysis revealed in section 7.2. Evidence was also found that specialist teachers were not empowered

in decision-making in policies or even the DoOSE (see Sections 7.4.1 & 7.5.1). They had a desire that there should be more independence and flexibility in the curriculum and education for DHH students. There are indeed strong recommendations (for example Shyman (2015) that teachers should be empowered to work toward inclusive education changes, such as gathering new ideas and practices by visiting environments of inclusive education.

It seems therefore that the specialist teachers and all school staff are on the edge of the decision-making circle, but the power is clearly in the centre of this circle, with the hand of the governmental policymakers (decision-making) and the MoE (DoOSE), who control and organize all the schools in the broader Saudi context based on the policies issued. Thus, teachers have limited power and are supposed to do exactly what the authorities have decided. The approach to mainstreaming was planned previously in the DoOSEs, based on previous policies, and teachers were compelled to follow this. The MoE, represented by supervisors and the LEAs, carry out an annual assessment of the performance of all school staff, including specialist teachers. This assessment is based on “The Perfect Practices Assessment Sheet” (see Appendix J), which would be limited to the practice of integration as interpreted by the DoOSE. Therefore, as long as the specialist teachers have committed themselves to the assessment’s clauses, based on integration, they will be ranked ‘excellent’. However, they could achieve a low rating leading to adverse disciplinary action if they break the code of practice required in the DoOSE, even if modern educational perspectives underpin their practice for DHH students (see Chapter 8). It could be the case that further inspection and supervision could be undertaken, especially in the current study’s context (the mainstream schools located in Riyadh, which are near the MoE, and the

agencies of policymakers). Arguably, the situation may be different in contexts far from the capital city.

The documentary analyses of DoOSE (both versions), and a comparison of these policies with the international features of inclusion and integration (see Section 4.5), show clearly that the global ethos and practice of integration were represented, as they aligned with Rodriguez & Garro-Gil (2015), Tye-Murray (2014), Eriks-Brophy et al. (2006) and the Warnock Report (1978). Arguably, then, the Saudi educational context adopted the universal concept of integration that had been developed from foreign contexts, such as the UK and the USA. They were therefore persuaded to make decisions, rules and regulations organising the practices of integration in the Saudi and Islamic contexts.

It has been argued, however, that the principles of inclusion are compatible with the Islamic socio-culture (Section 4.3) and have existed in Saudi Arabia since the 1950s (Section 2.3). However, as Saudi Arabia has followed the global educational evolution, its version of inclusion has changed, following different decisions from the DoOSEs, into segregation in special schools and later into integration in special classrooms in mainstream schools (Aldabas, 2015). Thus, it can be seen that the Saudi Arabia has previous experiences in adopting foreign educational concepts and practices such as integration and segregation into the decision-making of higher authorities and the DoOSE.

The argument outlined above appears to support the idea that inclusion has been part of the Saudi sociocultural norms and is compatible with Islamic concepts; however, to work towards inclusive education in the Saudi context needs clear initial decision-making, regardless of other considerations. The delay in implementing inclusive

practice so far, or implementing it as integration, is a result of a lack of clear decisions for inclusive education and its practices in the Saudi educational policies and the documents of DoOSE. There may also be a lack of clarity in the use of the term "inclusion" as well as the absence of any explanation or mention of the tasks involved in inclusive education practices, as discussed in chapter four.

In the educational systems in developed countries applying inclusion, such as the UK, much of the decision-making power resides with schools, including, for instance, staff recruitment, the budget and some decisions regarding the curriculum (Doherty, 2012a). However, in Saudi Arabia, the power role is divided between the MoE and higher authorities because of a clear definition of responsibilities and tasks in Saudi national policies, dominant sociocultural expectations and norms regarding both central responsibility and equity, and allocation of budgetary responsibilities (Alanazi, 2012).

This study revealed that the decision to apply inclusion lies within the power of the policymakers and associated convictions. However, currently, there may be an overlap in understanding the concepts of inclusion and integration (Allothman, 2014; Alshahrani, 2014; Alanazi, 2012) where similar words are used "الدمج". Therefore, it is likely that once the decisions-makers have an awareness of this and the need to follow the global orientation, they may initially tackle all the contextual barriers, then make decisions and follow regulations to organise inclusive practices as restoring the rights of SEN individuals.

Inclusion cannot be understood in just one way; it is a complex concept in education systems in which the nature of the context needs to be recognised. It could be acknowledged that in the Saudi context there may be different other issues associated

with inclusion that need to be tackled before successful implementation in the context of education. However, these factors would be difficult to achieve with DHH students unless there was a clear decision for inclusion in the hierarchy of the Saudi educational system. DHH students' experience of integration in mainstream schools has, for example, suffered the same fate of being dependent upon a decision from policymakers, followed by the organisation of roles and practices by the MoE.

9.2.2 Educational Options for DHH Students

The findings of this research show that, although DHH students could be educated in very different environments (some participation, some segregating), they could differ in the services provided and involve linguistic and cultural differences and so inclusive education as an educational option might not be offered in the Saudi context at the time of this study for the DHH students (Chapter 7, Section 7.6). Despite the availability of the neighbourhood schools as an educational option, there are no SEN services provided for the included child, and most of the benefits to students are hearing students with speech and language disorders rather than DHH students (Section 7.4.4). This might not represent the ethos or practice of inclusive education, which aims to provide support services for all students with SEN in inclusive settings as a means of supporting diversity (Eriks-Brophy *et al.*, 2006). The full discussion of this finding could be aligned with the discussion of the last theme of the experience of DHH students in mainstream schools (Section 9.2.1).

In contrast with expected pressure from Deaf culture to be independent, the findings of this research also revealed an explicit wish of the DHH students their parents, and the specialist teachers to locate DHH students in schools or schools closest to where their brothers and neighbours attend (Section 7.6). Moreover, it was evident that the four mainstream schools in this study are located far away from DHH students' homes,

and DHH students felt 'strange' because of this (Sections 7.2.2 & 8.3.2.1). It could be argued that the DHH students were seeking a sense of belonging and familiarity with their social neighbours and inclusion. This could be aligned with the tendency towards some kind of inclusive education and could facilitate their inclusion despite the pressure of isolationism from the Deaf culture (Doherty, 2012a). Inclusion implies, then, additional features, such as delivering services in the general classroom in neighbourhood schools (Shyman, 2015).

However, there could be sociocultural reasons for the importance of the concept of familiarity in this context. A possible explanation is that one of the Saudi values is respecting and appreciating neighbours. This could also exist in broader Islamic societies, as the Prophet Mohammed commented about neighbours in Islam (this is relevant to the discussion of inclusive education and the influence of socio-cultural contextual differences presented at Section 4.3). This means that in the Saudi Islamic context, it is necessary for social neighbours to respect, interest, and look after each other as an inclusive society. Therefore, DHH students would be comfortable to be placed in the nearest schools to their homes, where they can find familiarity with hearing peers that they can meet inside the neighbourhood and outside the school. Thus, the local neighbourhood school should be the first option for inclusion in the Saudi educational system. It could also facilitate the work toward inclusion in the Saudi context for those who feel strange in regular schools at a great distance from their homes or those hearing peers who have a negative attitude towards inclusion (Sections 7.2.2). Such a view is supported by Shyman (2015), who put a condition of successful inclusion as placing the included child in the nearest school as much as possible, meaning that justice and familiarity are key to inclusion.

Furthermore, in the Saudi context, Alshahrani (2014) highlighted the need for facilitating inclusive education for DHH students in their local communities. However, he claimed that this should be facilitated by the presence of sign language interpreters in each school. Although this viewpoint is unique, it could open the door to DHH students participating as equal and independent agents, albeit through some reliance on the translators. In contrast, providing services from early inclusive education for DHH students in their community schools is essential to a successful experience of inclusion (Eriks-Brophy *et al.*, 2006); ideas such as providing qualified training and services for regular teachers and DHH students are likely to be preferable to promote independence in inclusive neighbourhood schools to overreliance on translators (Doherty, 2012a). Moreover, the availability of specialist teachers as consultants along with other service providers in inclusive neighbourhood schools could be considered vital to DHH students' independence.

9.2.3 Understanding of Inclusive Education

The findings from the inclusive education's theme revealed an encouraging positive knowledge amongst specialist teachers (Section 8.2) that multiple understandings related to the phrase "inclusive education" should be exploited successfully to work towards inclusive education for DHH students in the Saudi context. The perceived meaning included an understanding of inclusion as concerned with values and ethical issues, location, continuing processes to achieve diversity, ethos of identifying and removing the barriers, effective practice, rights, state of welcoming and belonging and inclusion of the curriculum (Section 8.2.1). These dimensions were consistent with discussions in Chapter four (Section 4.3) and chapter Five (Sections 5.3 & 5.4) as meanings of inclusion (see Lave, J. and Wenger, 1991; M. Ainscow, 2005a; Doherty, 2012a). The specialist teachers also distinguished clearly between the terms of

'inclusion' and 'integration' as educational options in various dimensions, such as definitions, educational and social structures, practices, level of segregation and participation, educational places and the intended aims and results (Section 8.2.2). This also accorded with the critical features of inclusion and integration discussed in chapter Four (Section 4.5) (see Doherty, 2012a; Bendová and Fialová, 2015; Jahnukainen, 2015; Rodriguez and Garro-Gil, 2015; Shyman, 2015). The analyses of their responses also revealed that their implicit models of disability ranged between the social and interactional models (Section 8.3.2).

However, these findings highlight the role of interrelated contextual factors more clearly and support the argument that understanding of inclusive education is a complex issue that includes diverse background factors, and therefore needs to be interpreted with caution. This research has attempted to discover how inclusive education is understood in mainstream schools for DHH students within the Saudi context (as the second research question), exploring this Western concept within the Saudi cultural and religious framework in terms of its understandings and meanings.

Specialist teachers have qualified through pre-service training as part of their education in Saudi universities (Section 8.4.5). The Saudi university context includes faculty members who have studied abroad. Master's and Doctoral programs involve, as an essential condition, being assigned as a lecturer or assistant professor. The Higher Education Agency in the Saudi MoE and the Saudi Scholarship Program are careful to send faculty members of Special Education Departments to follow Graduate Studies in developed countries such as the USA, UK, and Australia (Ministry of Education of Saudi Arabia, 2019); and countries which have also applied and experienced inclusive education and have contemporary social sciences in their educational system. Therefore, possibly, those scholars have transferred international

knowledge to the local Saudi specialist teachers during their education in colleges in Saudi universities. Thus, it is almost certain that the knowledge amongst specialist teachers is a result of their frequent interaction in pre-service training with qualified lecturers and professors in the universities context who have profited from foreign scholarship programmes. This is consistent with Romi and Leyser (2006), who indicated that exploring the viewpoints of specialist teachers who have a specialist preparation program in SEN and inclusion will lead to greater understanding of the concept of inclusive education, which is required for its success.

However, the findings of this study regarding the knowledge of specialist teachers in DHH education is contrary to that of Alothman (2014), who studied the knowledge and the attitudes of the specialist teachers, as well as the school principals and parents of Deaf students in mainstream schools in the Saudi context. He found that his participants as specialist teachers had a “basic knowledge” of inclusive education, which suggests a lesser degree of knowledge compared to specialist teachers in the current study, who demonstrated encouraging and promising positive knowledge in working toward an inclusive education for DHH students in the Saudi context. A possible explanation for this apparent contradiction could be due to the kind of participants interviewed, as this study sought to interview the newly graduated specialist teachers who had achieved Bachelor, Master’s, and PhD degrees in DHH education approximately one to two years ago, or those who were currently studying graduate programs in DHH education.

9.2.4 Human- and Physical-Related Factors

As in chapter Eight (Sections 8.3.1 & 8.3.2), findings related to the barriers and the support for successful inclusion will now be discussed together. The barriers theme is combined with the theme of the support required, given the overlap between the

barriers to successful inclusion and the support required to ensure that success. The respondents often described the support and barriers to inclusive education, as existing in a single factor. For example, support services were perceived as barriers when they were not available or valid to the needs of DHH students.

9.2.4.1 Human-Related Factors

The findings have revealed a perception amongst participants that different human-related factors had to be tackled to work towards inclusive education for DHH students in the Saudi context. These included values and societal attitudes, interaction with DHH students, training, leadership and authorities, teaching and learning management - all human-related factors (Section 8.3.1). However, these findings highlight the role of interrelated contextual factors more clearly and support the argument that barriers and support of inclusion are complex issues that include diverse background factors (Alshahrani, 2014). Thus, this result needs to be interpreted with caution to develop inclusion for DHH in the Saudi context. It seems possible that the human-related challenges are due to a lack of engagement in formal and informal development for human resources in mainstream schools' contexts. Although there was a lack of specialised in-service training found in this study (Section 8.3.1.2), some special places were found where specialist teachers sat daily interacting and negotiating meanings, possible source of informal development for all non-specialist school staff. However, not one of non-specialist staff was observed to make conversation with them. This could be attributed to the fact that they may not have found time to engage in this kind of informal development in these schools; a possible explanation for this might be that the school staff may have a workload preventing them from engaging in this kind of interaction. For example, weekly, the regular teachers in these contexts have 24 lessons with four classes; and daily, they have

playground supervision in their morning line-up; lunch break; noon's prayers; organising students when they leave for home; preparing the lessons (Ministry of Education of Saudi Arabia, 2019). Furthermore, regular teachers in this study were observed to teach classes of 36-40 students (Section 8.3.1.5). The other staff, such as the administrators, including the school principals, may also have a high workload where they are responsible for a school that includes between 800-1200 students as well as approximately 100 teachers and other staff (Section 8.3.1.4). They also coordinate the work between the LEA and their schools, receiving complaints from the parents and resolving them (Ministry of Education of Saudi Arabia, 2019). Therefore, they may not find a time to engage in formal training or informal learning through discourses with specialists.

An additional possible explanation related to the lack of engagement in development might be that there is a lack of specialised pre- and in-service training for school staff in the Saudi context, except for the pre-service training for specialist teachers. As revealed by this study, non-specialist educators and individuals having contact with DHH students may not encounter subjects related to inclusion or DHH students in in-service training in educational centres or courses in pre-service training in teachers' education (closely related to the findings presented at section 8.3.1.2). This also includes the individuals such as the hearing peers and families, where they may not find a chance to learn about how to deal with DHH students (Allothman, 2014).

As discussed in Chapter Four (Section 4.7.3) and Chapter Five (Section 5.3), numerous human-related issues could be overcome by engaging in formal and informal development. Several lines of evidence suggest that professional development is one of the most critical factors influencing the success of inclusive education. The literature on professional development in inclusive education (see

Section 4.7.3) varies in terms of aims and research findings. However, all support the argument that engaging in professional development is one of the most important factors influencing the success in the process of overcoming human-related barriers (see Romi and Leyser, 2006; Furlonger et al., 2010; Bai and Martin, 2015; Duchaine et al., 2011; Rodrigues & Lima-Rodrigues, 2011; Johnson, 2004; Hegarty, S., Pocklington, K. and Lucas, 1983; Boglah, 2002; Booth, T., 2000; Dupoux et al., 2005; Alothman, 2014; Alshahran, 2014). This also accords with Bai & Martin (2015) who showed that professional training is fundamental to improving knowledge and skills to present active support to DHH students and their families. This literature provides useful tools for understanding the type of formal professional training required.

Furthermore, as mentioned in Chapter Five (Section 5.3), informal development through discourses and negotiation of meanings also plays an essential role in overcoming the human-related influences. In accordance with this, Dunne (2009) reported that meanings learned socially and informally through interaction and discourses could be embodied into something real (reification), so that these discourses were referred to as practices that would then systematically shape informal development. Saudi policy clearly states, however, that the specialist teachers are responsible for conducting initial or “informal” professional development at inclusive schools (Alanazi, 2012). However, the specialist teachers in this study indicated that *“it was the responsibility of the supervisors of the MoE and LAE”* (ST8), and, as observed (see Sections 7.5.2 & 8.3.1.4), there is a lack in informal discourses between specialists and other human resources. According to Ainscow (2005a), contextual factors (such as this confusion about responsibility) could impact on professional development, so making certain practices and ideas relevant to each particular context and understandings should be considered. Saudi authorities, however, give the

specialist teachers less power and authority than the MoE's and LAE's supervisors, which possibly challenges the provision of appropriate informal or formal professional development at mainstream schools.

9.2.4.2 Physical-Related Factors

Another critical finding revealed by this study is a perception amongst participants that there are different physical-related factors that have to be tackled to work towards an inclusive education for DHH students in the Saudi context. The participants perceived that availability and fitness of physical environments, material sources and advantages, support services and programs were essential physical requirements for DHH students in inclusive education (Section 8.3.2). These essentials are significant in recognising and realising the support required to improve school environments so as to make them more inclusive and diverse. According to the interactional model of inclusive education (Section 5.5.2), there is a complex interaction between the child's needs, strengths, and the provided services, which results in understanding the level of needs and support required for change and development (Cline and Frederickson, 2009). Diversity entails the presence of DHH students who have particular needs and require particular support, and their peers could also benefit from this support as well as the experience of heterogeneity (Shyman, 2015).

Half of the participants expressed that physical-related issues were the most influential factors rather than the human-related factors (Section 8.3.3.1). ST6 concluded that:

“The teacher could be given training, and the issue would be solved. We could also give him a typical tutorial to be followed, but the physical environment which is suitable for DHH students is more complicated in terms of the hearing and visual preparations”.

Therefore, a possible explanation for this might be that, firstly, the participants have focused on the physical factors based on their knowledge and experience of the DHH

context, which counts as its essential role to work successfully towards inclusion. Chapter Four (Section 4.7.1) and Chapter Three (Section 3.8.3) have discussed physical sources collected from studies interested in a successful physical environment for DHH students, regardless of the program provided, whether in special or regular schools/classrooms (see Luetke-Stahlman, 1998; Hanks, 2003; Hadjikakou, Petridou and Stylianou, 2005; Rekkedal, 2012, 2013). One of the contributions of the current study is that it explores appropriate physical environment in inclusive provision particularly for DHH students. This is consistent with Avramidis (2001), who classified physical sources to be vital factors in inclusive education for students with SEN, DHH students being one of them.

Another related observation revealed a primary emphasis of specialist teachers, DHH students and their parents on the physical visual and hearing resources in the current experience in special classrooms (Section 7.5). It seems possible that this finding is due to their successful previous experiences of using these physical means with DHH students, and their beliefs that without considering the physical factors with DHH students, the work toward inclusion could be undermined, as one specialist teacher put it:

“It is impossible to work with DHH students without fitting the school environment to them” (ST7).

Another likely cause for this perspective is that, based on the participants' experiences in the mainstream schools' context, they could consider that it requires a long and complicated process to obtain some essential physical resources. They largely believe that the provision of sufficient physical resources remains the responsibility of the MoE and LEA. Two of the specialists indicated that they had had complicated experiences with the administrative hierarchy in the Saudi educational system when ordering the

visual devices required by the DHH students in the classroom (see the quotation of ST4 in Section 8.3.1.4). This finding suggests that this complicated issue has most likely helped form the view amongst some participants that it is one of the main barriers faced by inclusion and by regular teachers who also belong to the same mainstream schools' context and Saudi educational system. One possible implication is that teachers may not involve themselves in the process of ordering physical resources owing to the long time and complicated responsibility linked to the physical devices.

Evidence supports the perspective that most specialist teachers would use more effective teaching approaches with DHH students if a greater variety of physical sources had been available. This is consistent with Leatherman and Niemeyer (2005), who showed that more positive attitudes were reflected when teachers had sufficient resources. Therefore, difficulties and complications concerning physical sources should be resolved and subjected to several improvements in the ordering process and system. Likewise, ways should be identified to increase teachers' energy and commitment to make use of the resources available in the Saudi mainstream schools' context. Moreover, the provision of necessary physical sources should remain under the responsibility of the Saudi MoE, but with greater facilitation.

9.3 Contribution of the Study

This research mainly aimed to explore the experiences of DHH students and specialist teachers in mainstream schools and how successful inclusive education for DHH students can be obtained, with the intention of informing improvements in the Saudi context. As discussed in chapter Four, most of the existing literature on inclusive education focuses on attitudes toward inclusion, and generally on inclusion for students with SEN. What is significant about this research is that it is likely the first to

explore the current experience of DHH students in mainstream schools, their understandings of inclusion, the barriers they face and the support, all from the perspectives of involved participants (specialist teachers, DHH students, and their parents) so as to provide an in-depth understanding of these issues.

The insights derived from this study are helpful for not only documenting and understanding the current experience, but for understand processes required in developing inclusive education in the uniqueness of the Saudi sociocultural context.

The findings of the study suggest that the current experience of DHH students in mainstream schools is best labelled as 'integration'. The specialist teachers' understanding of inclusive education was well articulated and offers promise for the future; for them, the barriers to inclusion are associated with both human and environmental factors, external to the identity of DHH students. Lastly, the kinds of support required are intangible/moral, financial, legal and governmental, and these are required mostly from educational authorities, educational training institutions, and human educational resources (chapters 7 & 8).

In showing how these findings and conclusions are significant and how they impact on our understanding of the problem that this research examines, it could be argued that this finding may contribute theoretically in removing the overlap between the use of the terms of inclusion and integration interchangeably in research and educational policies in Saudi and other Arabic countries. Moreover, this work could also contribute to establishing the current experience is not inclusion although at least has some practices of inclusion as discussed in (Section 4.5). The researchers and the policy makers in the Saudi context could find a case or argument through this research to call the current experience integration and then work to move it forward so as to

develop successful inclusion. Therefore, this finding extends current knowledge of the key features of these two concepts, as discussed in Chapter Four.

Generally, this study has contributed to understanding the complications of inclusive education theoretically and practically and identified different kinds of barriers and support that could hinder or facilitate inclusion for DHH students in the Saudi context. Those who could benefit from this theoretical contribution the most are the researchers, supervisors and administrators (policy makers) involved in inclusive education or the particular community practising education for DHH students, as it could enhance their ability to make educational claims and decisions. An effective contribution to knowledge has been made by this research. It has provided rich details of understandings regarding inclusion of DHH students and has identified key objectives and made theoretical recommendations regarding the development of inclusion from the perspectives of specialist teachers, DHH students and their parents, addressing areas that had not been explored before in the Saudi context. This research could also help stakeholders in education to evaluate the current experience in mainstream schools, allowing them to benefit from its features and to develop successful inclusion practices. It also suggests future processes of reification that could embody the meanings, understandings, discourses and the literacy of inclusive education into real practices in Saudi Arabia and other contexts. Therefore, this research provides those who are non-specialists who hold the power in decision-making in the Saudi educational context with in-depth insights into the gap in the knowledge between themselves and specialists. It enlightens them that what is actually happening in real mainstream schools is not the practice of inclusion.

This study has also contributed by constructing sociocultural theoretical frameworks in relation to inclusive education for DHH students. Specifics include the use of the

lens of the community of practice theory to help to understand the social management of the educational workplace and analyse how the Saudi social context might develop successful inclusion, through educational groups that belong to the community of practice of education for DHH students. The study argues that learning of members of this community could change from being provided with formal training and education but more realistically, consideration should be given to how to exploit existing opportunities to learn through participation and engagement in the discourses, interaction, and negotiation of meanings in these educational workplaces.

With the qualitative approach, another methodological contribution was made as this study could be the first qualitative study exploring the social perceptions of DHH students, specialist teachers and (to a lesser extent) parents regarding inclusive education for DHH students as social science research in Saudi Arabia. The majority of the scholars' works in the social field of special education and inclusion in the Arabic, Middle East, and the Saudi context rely heavily on the quantitative methodology using closed questions in questionnaires and structured interviews; adopting an interpretive approach and generating data by using document analysis, semi-structured observation and interviews in this study contributes to methodology in the research field of social science in the Saudi context.

This study has provided a set of practical implications and recommendations, which could be implemented by those involved in the educational policy, training, and practice, intended to achieve successful inclusion for DHH students. The next section shows a broader view, directing practical processes to achieve an improvement in the Saudi educational system by enhancing and developing the quality of inclusion for DHH students.

9.4 Implications and Recommendations for Policy, Training and Practice

This section demonstrates how the insights derived from this study could be helpful for educational workplaces and institutions. It highlights a number of practical implications relevant to educational authorities, educational training institutions, and all human resources involved in the education of DHH students. Findings from the current study showed that the practices of the present experience of DHH students in the Saudi mainstream context reflect an ethos and practise of integration rather than inclusion (Section 7.6). Thus, it is essential to develop inclusive educational practices in order to move towards successful inclusion within Saudi mainstream schools. The final objective of this research is to provide a set of recommendations that can guide the improvement of inclusion for DHH students in the Saudi context. Therefore, based on the summary and discussion of the main findings of this research (Section 9.2), the following section proposes key implications and recommendations concerning this.

9.4.1 Educational Authorities

This research provides a number of practical implications and recommendations relevant to educational authorities in the Saudi context, including the MoE, the LEA, the DGSP, and other educational authorities that are responsible for education of DHH students. These implications and recommendations include:

Financial support: The findings of this study suggest that financial support plays a key role in developing inclusion for DHH students (Section 8.4.1). This kind of support should be provided practically by the educational authorities (Section 8.4.4), as they receive a considerable annual budget from the Government. However, there may have been, previously, a lack of awareness in terms of the priorities. Therefore, greater efforts are needed to ensure that there is sufficient financial provision for the inclusive

schools and other requirements. This includes providing adequate and up-to-date equipment to suit the physical environment for DHH students. For example, general facilities, accessibility and signboards, soundproof systems, cleanliness, the class size and structure, and school location. Providing adequate and appropriate support to the material resources and the support services required for the DHH students' involvement inside and outside the regular classrooms is vital. This includes, amongst other things, visual means, hearing and sound transmission means, materials of learning and teaching. Furthermore, educational authorities are obliged to make appropriate provision of special education benefits. The findings of this study showed that benefits for DHH students and specialists were provided suitably; however, special education advantages should also include provision for the regular classroom teachers (in the form of financial encouragement) for efficient achievements and for engagement in training, if inclusion is to be successful. Lastly, there must also be a financial commitment from educational authorities regarding training for inclusion.

Intangible/moral support: another important practical implication recommended by this research for educational authorities is in the form of thanks, appreciation and encouragement as a means of encouraging extra impetus for inclusion. Educational authorities are at the top of the hierarchy of the educational system and can confer honours for outstanding achievements in terms of discipline, collaboration, training, effective tasks, research, and charitable work in inclusion. This could be implemented using written certificates, official social media, or as acknowledgements during official celebrations of DHH education, such as International Deaf Awareness Week.

Support through laws and legislations: when inclusion has been fully implemented, there could be some continuing confusion about the roles of relevant human resources and support providers, which require educational authorities to respond quickly and

simply to organise the work of school staff. This response should be in the form of laws and legislations that arrange these roles and functions so that they are consistent. However, these laws should be made in the same spirit as this research, which involves considering the perspectives of DHH individuals and specialists,

Adopting extra interaction, participation, collaboration and supervision: educational authority for the SEN/DHH students in the Saudi educational system is distributed between the MoE, the LEA, and the DGSP through their educational offices in all regions of the Saudi Kingdom. To develop successful inclusive education, these authorities should adopt greater interaction, participation, collaboration and supervision to meet the diverse needs of DHH students in inclusive schools. These functions need to increase between themselves on the one hand, and between them and other educational and training institutions on the other. This could also facilitate and promote the quality of language and negotiation of meanings that take place in the discourses for inclusion and subsequently any overlaps in concepts could be recognised and misunderstandings avoided.

Curriculum and assessment: this study has taken the perspectives of DHH students and specialists, who have recommended that educational authorities must address the practical implications of the current national curriculum and assessment (Section 7.2.6). These currently contain complexities in terms of inclusion of DHH students. Therefore, they could be improved so as to account for the diversity of the needs of all students. The current curriculum has been prepared for the needs of the hearing students; however, inclusive education requires the curriculum to consider the heterogeneity and diversity of all students, DHH students being one of them, in the regular classroom; therefore, it should be changed and improved. The assessment of DHH students in inclusion should also reconsider some of the phrases used in this

process, so that practice is required in learning and success rather than individual acquisition of skills and cognition. For instance, some of the minimum required skills in the assessment use the concept of “acquisition of the skills”, which should be replaced by the phrase “mastering the skills”.

9.4.2 Educational Training Institutions

Another important practical implication and recommendation suggested by this research is relevant to educational training institutions in the Saudi context, including educational colleges in universities, educational training centres, and trainers holding responsibility for training and professional development. A unique aspect of this research is that it considers the recent combination of the MoE and the Ministry of Higher Education (MoHE) into one Ministry in the Saudi context. Therefore, there should be particular suggestions of practical implications and recommendation regarding training and professional development. This includes:

Developing effective academic plans in teachers’ pre-service education: the relevance of training in teachers’ education is clearly supported by the current findings, as it has demonstrated that the teacher training includes no information about SEN/DHH or inclusion (Sections 8.3.1.1 & 8.4.5). This is true of the academic programmes of regular classroom teachers in different disciplines, with the exception of the special education departments in educational colleges. This study has also demonstrated the positive effectiveness of pre-service training on specialist teachers’ performances (Section 7.3.2). Therefore, it is recommended that the educational colleges include subjects regarding SEN/DHH and inclusion in all their academic plans for different majors of regular classroom teachers as a requirement of graduation and nomination in education. This implication could provide a solution to challenges concerning regular classroom teachers’ knowledge and attitudes toward inclusion of DHH students.

Continual in-service training and participation: the investigation has shown that there is a lack of in-service training for both regular and specialist teachers about SEN/DHH and inclusion generally in educational training centres. There is also insufficient participation and collaboration between the school staff (Section 8.3.1). Moreover, there may not be any encouragement to obtain in-service training continuously. It was discussed in Chapter 4 (Section 4.7.3) that this step plays a vital role in improving and updating the knowledge and practice of education and inclusion for SEN/DHH students. It was also shown in chapter 5 (Section 5.3) that participation in informal development for all educators plays an essential role in the practice and development of educational skills. An implication of this is the possibility of involving specialists (teachers from inclusive schools and faculty members from universities) as trainers in educational training centres and as consultants in inclusive schools. This could provide opportunities for learning and professional development in a constant way.

Ensuring high quality of subjects and courses in training: the evidence from this study has highlighted a number of the most important subjects to be scheduled in pre-service and in-service training for educators. These include the means of communication with DHH students, inclusive education, special education, and characteristics of DHH students (Section 8.4.5). A key policy priority of educational training institutions should, therefore, be to plan for the long- and short-term aims of training to include high quality of subjects and courses in training, such as those mentioned above.

Facilitate and improve research activity in educational training institutions: carrying out educational research involved a long and complex process in terms of obtaining consents from the two previous ministries (Section 6.7). This, arguably, led to some ambiguities or confusions regarding the functions of the research's findings, practical implications, and recommendations to the theoretical and practical educational field.

However, under the umbrella of one Ministry, the process of conducting research will be easier and this could be more effective in terms of building bridges between theoretical and practical work. Therefore, continued efforts are recommended so as to make research more accessible and applicable to the field of education. Consequently, educational training institutions would have easier access to such material, allowing them to reify and benefit from it through quick and easy access to research during pre- and in-service training. Conducting theoretical and applied research and sharing its outcomes immediately in training will improve educational practice and facilitate successful inclusion. It will also help to keep the Saudi educational system up-to-date with developments elsewhere.

9.4.3 Human Resources

This research suggests further important practical implications and recommendations relevant to all human resources involved in inclusive education for DHH students. Stakeholders having close relationships and roles with DHH students include teachers, principals, psychologists, speech and language teachers, student consultants, hearing and DHH peers, families, supervisors, and administrators. Each of these require:

Constant engagement in training, discourses, negotiation of meaning and interaction:

this research reveals that most of the barriers for inclusion are human related (Sections 4.3.1 & 8.4.6). This could be owing to a lack of engagement in formal and informal professional development (Section 9.2.4.1). Therefore, this research recommends that all individuals who will be delivering to DHH students should form a continuous relationship with sources of learning and development, whether formally or informally. Professional training could provide formal learning, whilst participation in

discourses and negotiations could offer informal development, resulting in an increase in joint repertoires that encourage successful inclusion.

Discipline and precision in performing the tasks: The findings have demonstrated that all human resources involved in inclusive education for DHH students have different tasks and obligations allocated for each educator (Section 8.4.6). Discipline and precision in these tasks are required from all the human resources which can contribute to the success of inclusion. Therefore, greater effort is needed in ensuring that all the human resources exercise discipline in their inclusion-related tasks.

Collaboration: one of the practical implications of inclusion is that all human resources need to work together. The data analysis showed that there is a lack of interaction and collaboration between the teachers and other school staff and even between the school staff themselves (Section 8.3.1.4). Furthermore, the majority of responsibility for DHH students rested on the shoulders of the specialist teachers, who remain on the margins of practice in mainstream (Section 7.2.2). This could be one of the main reasons for the delay in developing inclusive education in the Saudi inclusive schools' context. Inclusion cannot be obtained successfully unless there is a model of collaboration and harmony between all school staff. A reasonable approach to tackle this issue could be to make collaboration a useful intention in promoting success in the workplace.

Frequent use of visual and hearing tools, teaching and learning means: the investigation of experiences of DHH students and their specialist teachers has shown the vital role of using appropriate educational means in teaching the DHH students (Sections 8.3.1.5 & 8.3.2). Some of the participants considered it impossible to enter classrooms without these tools and aids (Section 8.3.2.2). There is, therefore, a

definite need for ensuring the ease of availability and fitness for purpose of hearing and visual devices, as well as sets of teaching and learning aids, which need to be used frequently in classrooms with DHH students.

Using preferred communication methods with DHH students: the issue of lack of interaction with DHH students was highlighted (Sections 4.7.4 & 7.3.1 & 8.3.1.3). Thus, promoting interaction with DHH students could be the most significant factor for the success of their inclusion, whether by signed or spoken methods. Therefore, all stakeholders (all school staff and hearing peers) should have knowledge of these communication methods and awareness of the preferences of DHH students.

Management in inclusive schools: some of the administrative challenges revealed by the findings were linked to the power vested in non-specialist schools' principals and in contrast the limitations of specialists' interventions (Sections 7.2.2 & 8.3.1.4). School principals in the Saudi context may be appointed in accordance with their general experience in education. Therefore, another important practical implication is empowering the voices of specialists, DHH students and their parents in the management of inclusive schools. Moreover, school principals should be appointed in accordance with their own professional development (such as in- and pre-service training or development) instead of prioritising other factors.

9.5 Difficulties, Limitations and Future Research Directions

Although this study contains interesting findings, contributions and recommendations for inclusive education of DHH students, there were a number of unavoidable limitations and difficulties. First, there were some limitations related to using the interview method, regardless of how useful it was to this study. A lengthy process of obtaining permissions from the MoE, the LEA, and even from the schools' principals

was necessary in order to get access to primary inclusive boys' schools attended by DHH students. There was also a concern regarding the availability of the participants, and circumstances such as the times of lessons, exams and assessments had to be taken into consideration. A few potential participants were worried about meeting to reveal their responses regarding educational authorities, despite confirmation in the information sheets that all interviews would be used only for the purposes of research and would be kept confidential. Further, the interview method may have affected what DHH students reported; they may have modified their responses because of the presence of the specialist teachers as translators. This might have also limited their self-expression and explanations.

An additional limitation is related to the selected participants and society of the study. This study included the specialist teachers, DHH students, and the parents in four primary boys' mainstream schools of DHH students in Riyadh city, Saudi Arabia. The study was also limited by the fact that it did not extend to a female section of school, as it conformed to the norm of the Saudi culture, which separates schools by gender. Furthermore, the study did not include female parents. Thus, all the participants were male.

The school and the society constituted another limitation to this work. It included only primary mainstream schools of DHH students, and it did not include secondary/high mainstream schools, special schools/institutes for the Deaf, specialist supervisors in the LEA and DGSP, Deaf parents, or new DHH teachers. Moreover, the participants were drawn entirely from one region (the Riyadh province) and the schools were selected on the basis of already being mainstream schools for DHH students. This means that DHH students', specialist teachers' and parents' perspectives in other DHH students' schools and Saudi provinces were not addressed by this study.

Therefore, in future studies, the voices of each of these sources regarding inclusive education for DHH students could prove highly significant.

The generalisability of the findings is subject to certain limitations. For instance, a lack of generalisability of the findings of this study is a limitation applied to almost every qualitative case study, owing to the relatively small number of the participants, techniques of selecting them, and the nature of specific social phenomenon being investigated. In addition, the situation with regard to continuing development in educational systems means that it is difficult to extrapolate the findings of recent times into the future. The educational situation may have changed or become very different in a short space of time. Moreover, this study adopted methodologies without aiming to generalise its findings to broader communities. The diversity of the social and economic factors was referred to for the purpose of comparison rather than for generalisability. Recognising this could reduce the risk of trying to generalise the findings generated from this study. This study is limited to exploring the current experience in boys' primary mainstream schools for DHH students in Riyadh city and how inclusion could be developed within this context. Thus, the outcomes of this research could be transferred to related sociocultural contexts.

Based on the above limitations, the question raised by this research, and the deficiencies identified in the literature search, the current study has identified several directions for future research. Several questions still remain to be explored regarding inclusion for DHH students. Inclusive education requires constant changes, developments and investigations. Therefore, the current research suggests a number of aspects that need to be further investigated regarding inclusive education for DHH students in the context of Saudi Arabia and other similar Arabic and Islamic contexts. These include:

- Investigating the voices of DHH teachers and parents (who have hearing loss), as well as specialist supervisors (who work in the LEA and the DGSP) in relation to inclusive education for DHH students.
- Investigating perceptions towards inclusive education in different school contexts such as high/secondary inclusive schools, as well as different levels of specialist institutes/schools.
- Investigating perceptions regarding communication with DHH students in inclusive schools and regular classrooms.

9.6 Conclusion

This study has provided valuable insights into the experiences of DHH students and specialist teachers in mainstream schools, permitted greater understanding of the movement towards inclusive education and offered perspectives of the barriers/support required to DHH students' inclusion in the Saudi context.

The investigation conducted for this study has made a significant contribution to the field of DHH education and inclusive education in Saudi Arabia. This contribution arose from the process of assessing in detail the current experience of DHH students in mainstream schools in Riyadh. The study has also contributed to identifying what the characteristics and key features of effective inclusive education might be in this context, as based on the experiences, understanding, and perceptions of the DHH students and specialists involved. This has the potential to improve the quality of inclusive education and to facilitate ease of access for DHH students to the educational opportunities provided by mainstream schools in this area.

The findings have suggested that practices of education in mainstream schools for DHH students mainly represent the ethos and practice of *integration* rather than

inclusion. Alternative educational practices are available in the Saudi educational system such as for Deaf students in special schools, and for hearing students with speech and language disorders in regular neighbourhood schools (albeit without services provided); however, Hard of Hearing (HH) students have only one educational choice, that is, integration programmes. Hence, there was a consensus that there is still a delay in implementing inclusion provision. The DHH students in this study have expressed a wish to be educated in inclusive neighbourhood schools to avoid the feeling of 'strangeness' in faraway mainstream schools. Specialist teachers have also demonstrated encouraging positive knowledge in which multiple understandings related to the phrase 'inclusive education' were revealed. The human- and physical-related factors constituted the main barriers to the support required, and this needs to be tackled in working toward inclusive education for DHH students in the Saudi context.

This study has opened a debate around issues of social inclusion within a sociocultural context that recognises Saudi and Islamic values in educational practice. This implies that change is not a simple issue of addressing participants' perceptions of the social phenomenon of inclusion; rather, a comprehensive process is called for that should address all sociocultural factors that shape participants' perceptions. These issues were discussed with caution, as they are social phenomena. It was argued that the Saudi policies lack clarity in decision-making about inclusion and its practices. This is also interrelated with other contextual issues such as the workload, the lack of engagement in professional development for human resources and ineffective arrangements in the ordering process of physical support.

Although genuinely inclusive provision is still unavailable as an educational option, this study offers a unique contribution, with the intention of informing improvements in the

Saudi context, as well as presenting implications and recommendations for policy, training and practice. There are positive indicators that decisions to adopt successful inclusion may be approaching, resulting in arrangements being made to implement all the human and physical factors needed to facilitate the development of inclusion for DHH students. One of these factors is that the Saudi university context includes faculty members who have studied abroad and are qualified in social sciences in the educational systems. Saudi universities recently moved under the umbrella of the MoE, which hopefully will bring these views closer. Another factor is that the Higher Education Agency in the Saudi MoE and the Saudi Scholarship Program have recently opened the door to DHH individuals being able to study abroad in countries such as the USA, the UK, and Australia (Ministry of Education of Saudi Arabia, 2019), allowing them to experience and apply inclusive education and promoting contemporary social sciences in their educational system. This could be seen as an effort on the part of the Saudi Government to empower DHH individuals as part of its educational decisions, in alignment with the Saudi vision of embracing developed countries' experience and fitting it to the Saudi context by 2030 Vision.

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List of Appendix

Appendix A: Table 4.4: Range of special educational provision, Warnock Report

Table 4. 4 Range of special educational provision, Warnock Report

Educational options for SEN/DHH provision	
1.	Full-time education in an ordinary class with any necessary help and support provided
2.	Education in an ordinary class with periods of withdrawal to a special class or unit or other supporting base
3.	Education in a special class or unit with periods of attendance at an ordinary class and full involvement in the general community life and extracurricular activities of the ordinary school
4.	Full-time education in a special class or unit with social contact with the main school
5.	Education in a special school, day or residential, with some shared lessons with a neighbouring ordinary school
6.	Full-time education in a day special school with social contact with an ordinary school
7.	Full-time education in residential special school with social contact with an ordinary school
8.	Short-term education in hospitals or other establishments
9.	Long-term education in hospitals or other establishments
10.	Home tuition

Range of special educational provision, Warnock Report (Warnock 1978: 96).

Appendix B: Table 4.5: Physical materials required to DHH students in mainstream schools

Table 4. 5 Physical materials required to DHH students in mainstream schools

physical materials	types
Hearing Technologies	hearing aids, cochlear implants, teacher-worn microphones, and student-worn microphones (Rekkedal, 2012).
Sound Transmission Technologies	microphones connected to loudspeakers, microphones in combination with inductive loop systems, and microphones in conjunction with FM systems (Rekkedal, 2013).
Different examples of learning and physical teaching services for DHH students	individual and group settings, amplification, psychological support, consultation (Hadjikakou, Petridou and Stylianou, 2005), existence of qualified resource room (Hanks, 2003), amendments on listening and physical settings, curriculum, classroom structure, the lesson format and materials, understanding tracking, assignment accomplishment, soundproof system, and placement choices (Luetke-Stahlman, 1998).

Appendix C: Table 4.6: The human sources for DHH inclusive schools

Table 4. 6 The human sources for DHH inclusive schools

The human sources	Description
Educators and school staff	Teachers, administrators, principals, specialist teachers, peripatetic teacher, resource room teachers, consultant teachers, educational supervisors.
Support services providers	Psychologists, Audiologists, speech and language disorders specialists, outside visitors
Peers and families	Parents, DHH peers, hearing peers

Sources: (Eriks-Brophy et al., 2006; Luckner & Muir, 2001; Alothman, 2014; Alshahrani, 2014; Ministry of Education, 2017).

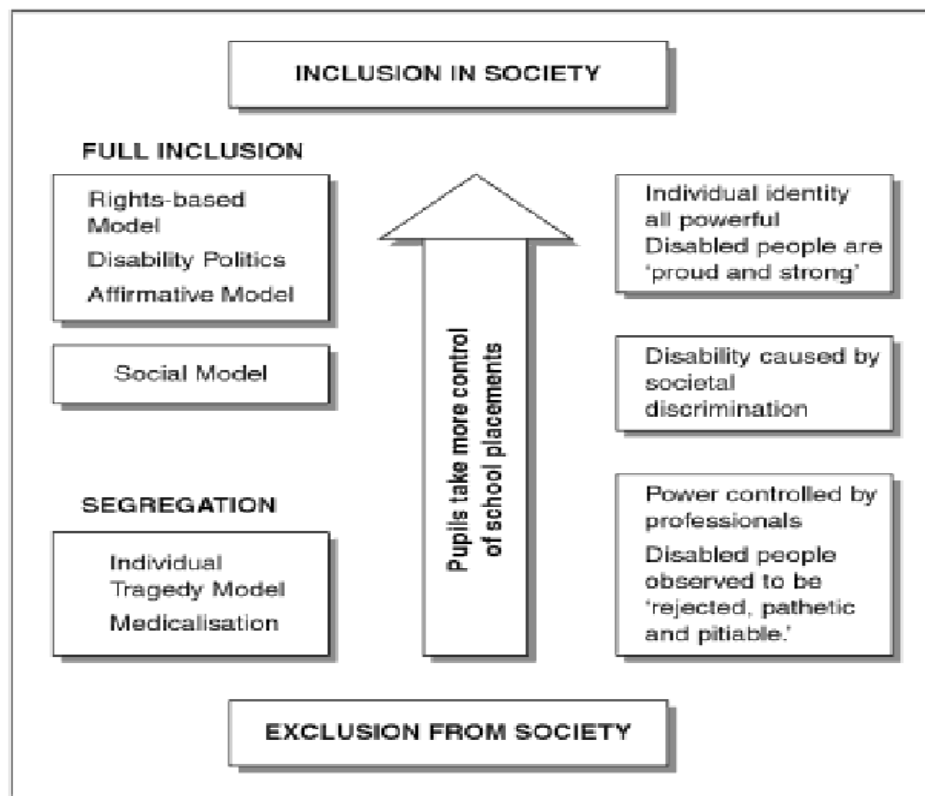
Appendix D: Table 5.1: Individual-focused theories

Table 5. 3 Individual-focused theories

The theory	The learning
Behaviourism	Learning is acquired as a new behaviour, or a change in the individual behaviour learned as a result of the association of that behaviour in the form of an external stimulus (Mergel, 1998).
Cognitivism	Learning is acquired through the cognitive structures and internal processing of information (Good and Brophy, 1990).
Constructivism	Learning is acquired by individuals constructing their own knowledge depending on individual experiences (Jonassen, 1994).

Appendix E: Figure 5.4: The relative placements of disability models

Table 5. 4 Inclusion and Disability Models



Source: (Hodkinson & Vickerman 2009: 17)

Appendix F: Table 6.2: Focus on Observation Schedule

Table 6. 2 Focus on Observation Schedule

School/	Date/	Deaf - HH
Context of Observation		
School Environment	Physical resources	- - - -
	Human resources	- - - -
Interactions involving DHH students	Communication mode	- - - -
	Entry to interaction	- - - -
	Maintenance of interaction	- - - -
Special educational services	What is provided	- - - -
	Where is provided	- - - -
	When is provided	- - - -
Narrative observation Documenting experiences of DHH students	- - - -	
Other notes	- - - -	

Note; collecting contextual information first, and then alternation in the observations will be applied, there is no trying to do all observations at once, spending between 10 – 15 minutes for each.

Appendix G: Table 6.3: Steps of Thematic Analysis

Table 6. 3 Steps of Thematic Analysis

Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing data (if necessary), reading and rereading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic „map" of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Sources: Braun & Clarke (2006: 35).

Appendix H: Table 7.1: The Current Experiences' Themes and codes

Table 7. 2 The Experience's Theme and codes

Themes	Sub-themes	Coding Framework	Coding label
Current Experience In Mainstream Schools - Structures and Processes	1- Mainstream Schools' Locations and Environments	Mainstream schools' locations	EX1.1
		DHH students' Sufferance	EX1.2
		Mainstream Schools' Environments	EX1.3
	2- Responsibility and Administration	Responsible	EX2.1
		Duties	EX2.2
		Administration	EX2.3
	3- Classroom activities	Arts and Sport	EX3.1
		Math and Arabic only for HH as assessment of normality	EX3.2
		Classroom activities in special classrooms	EX3.3
	4- Extracurricular activities	Morning assembling and line-up	EX4.1
		Lunch break	EX4.2
		prayers	EX4.3
		Social, awareness, and happy activities inside and outside the school	EX4.4
		Activity and the resource rooms	EX4.5
	5- Services	Identification of these services	EX5.1
		Eligibility	EX5.2
		Places of providing them	EX5.3
		Time	EX5.4
		Collaboration with services providers	EX5.5
	6- Curriculum and Assessment	National curriculum and assessments	EX6.1
		Difficulties	EX6.2
		Teachers' improvisation	EX6.3
		Adapting the curriculum and assessment	EX6.4
	Current Experience In Mainstream Schools - Relational Factors	1- Interaction	Language and communication
Initiatives of the interaction			EX7.2
Preserving the interaction			EX7.3
Lack of interaction			EX7.4
2- Teaching and Learning Strategies		Teaching and Learning Methods	EX8.1
		Teaching Aids	EX8.2
		Attention and Follow up	EX8.3
		Current Training	EX8.4
3- Labelling the Current Experience		Integration	EX9.1
		Least Restrictive Environments	EX9.2
		Special classrooms	EX9.3

Appendix I: Table 7.2: Choosing Educational Options' Theme and codes

Table 7. 3 The Educational Options Theme and codes

Theme	Sub-themes	Coding Framework	Coding label
Educational Options	Decision-making	Decision makers	ED1.1
		Considered factors	ED1.2
		Benefits to students	ED1.3
	Special institutes/schools	Benefits to students	ED2.1
		Segregation	ED2.2
		Sign language	ED2.3
		Special education services and advantages	ED2.4
	Integration programs	Benefits to students	ED3.1
		Two languages and cultures	ED3.2
		Incorporation	ED3.3
		Special education services and advantages	ED3.4
	Neighbourhood schools	Benefits to students and services	ED4.1
		Spoken language and culture	ED4.2
		Participants' willingness	ED4.3

Appendix K: Table 7.4: The theme of inclusive education and codes

Table 7. 4 The theme of inclusive education and codes

Theme	Sub-themes	Coding Framework	Coding label
Understanding inclusive education	Meaning of inclusive education	Inclusion of values and ethical issues	U1.1
		Location of inclusion	U1.2
		Inclusion as a continuing process to promote diversity	U1.3
		Inclusion was the ethos of identifying and removing barriers	U1.4
		Effective practice	U1.5
		Inclusion as a right	U1.6
		Inclusion as the state of welcoming, acceptance, and belonging	U1.7
		Inclusion in the curriculum	U1.8
	Distinctive inclusive education	Provided definitions	U2.1
		Educational and social structures	U2.2
		Practices	U2.3
		Level of segregation and participation	U2.4
		Educational places	U2.5
		Intended aims and results	U2.6
	Understood model of disability	Social model	U3.1
		Interactional model	U3.2

Appendix L: Table 7.5: The Barriers' theme and codes

Table 7. 5 The Barriers' theme and codes

Theme	Sub-themes	Frameworks	Issues	Coding label
Barriers	1- Human-related barriers	1.1- Values and Societal Attitudes	Beliefs and feelings	BR1.1.1
			Expectations	BR1.1.2
			Acceptance and discrimination	BR1.1.3
			Collaboration and participations	BR1.1.4
			Inequality	BR1.1.5
		1.2- Training	Pre-service training	BR1.2.1
			In-service training	BR1.2.2
			Kind or subject of courses	BR1.2.3
		1.3- Interaction	Communication ways	BR1.3.1
			Initiatives of the interaction	BR1.3.2
			Maintaining the interaction	BR1.3.3
		1.4- Leadership and Authorities	Specialisation	BR1.4.1
			Management and supervision	BR1.4.2
			Collaboration and support	BR1.4.3
			Indiscipline	BR1.4.4
	1.5- Teaching and Learning Management	Declamation	BR1.5.1	
		Non-diversification strategy	BR1.5.2	
		Writing	BR1.5.3	
		Feedback	BR1.5.4	
		Punishment	BR1.5.5	
	2- physical -related barriers	2.1- Availability and Fitness of physical environment	General facilities	BR2.1.1
			Accessibility and signboards	BR2.1.2
			Soundproof system	BR2.1.3
			Cleanliness	BR2.1.4
			Class size and structure	BR2.1.5
			School location	BR2.1.6
		2.2- Availability and Fitness of The Material Sources and Advantages	Visual means	BR2.2.1
			Hearing and sound transmission means	BR2.2.2
			Materials of learning and teaching	BR2.2.3
			Special education advantages	BR2.2.4
		2.3- Appropriateness of the Curriculum and Assessment	National curriculum	BR2.3.1
			National assessment	BR2.3.2
		2.4- Availability and Fitness of the support services and programs	Speech-language services	BR2.4.1
Psychological services			BR2.4.2	
Student counselling services			BR2.4.3	
3- Influence of Barriers	3.1- Most influential barriers	Human-related barriers	BR3.1.1	
		Physical -related barriers	BR3.1.2	
	3.2- Most affected category	Deaf students	BR3.2.1	
		HH students	BR3.2.2	

Appendix M: Table 7.5: The Support's theme and codes

Table 7. 6 The Support's theme and codes

Theme	Sub-themes	Coding Framework	Coding label
Support	Kind of Support Required	Intangible/moral support	SP1.1
		Financial support	SP1.2
		Legislative support	SP1.3
	What is most needed to offer this Support	Ministry of Education and Local Educational Authority	SP2.1
		Specialist Teachers	SP2.2
		Families	SP2.3
		School Principals	SP2.4
		Hearing Peers	SP2.5
	Most Needs to Receive this Support	DHH students	SP3.1
		Families	SP3.2
		Regular Classroom Teachers	SP3.3
		Special Education	SP3.4
		All School Sources	SP3.5
	What support is required from the MoE and the LEA	Raising awareness and development	SP4.1
		legislative support	SP4.2
		Appropriate Physical and material sources	SP4.3
		Professional human sources and Active supervision	SP4.4
		Programs and services	SP4.5
		Collaboration	SP4.6
	What support is required from Teacher Colleges/Universities and the Educational Training Centres	Financial and intangible/moral support	SP4.6
		Communication ways' courses	SP5.1
		Inclusive education's courses	SP5.2
		Special Education and Characteristics of DHH students	SP5.3
		Pre-service training	SP5.4
	What support is required from Human Sources	In-service training	SP5.5
		General Teachers	SP6.1
		School Principals	SP6.2
		Psychologists	SP6.3
Speech and Language Teachers		SP6.4	
Student Advisor		SP6.5	
Hearing and DHH Peers		SP6.6	
Families	SP6.7		

Appendix M: Ethical Approval to Application 16/17-175

**RESEARCH
WITH
PLYMOUTH
UNIVERSITY**

12 April 2017

CONFIDENTIAL

Mubarak Alanazi
Plymouth Institute of Education
Faculty of Arts and Humanities
Plymouth University

Dear Mubarak

Application for Approval by Education Research Ethics Sub-committee

Reference Number: 16/17-175

Application Title: The perceptions of DHH students and specialists, regarding inclusive education and its barriers and supports in mainstream schools in Saudi Arabia

I am pleased to inform you that the Education Research Ethics Sub-committee has granted approval to you to conduct this research.

Please note that this approval is for three years, after which you will be required to seek extension of existing approval.

Please note that should any MAJOR changes to your research design occur which effect the ethics of procedures involved you must inform the Committee. Please contact Claire Butcher on (01752) 585337 or by email claire.butcher@plymouth.ac.uk

Yours sincerely



Professor Linda la Velle
Chair, Education Research Ethics Sub-committee -
Plymouth Institute of Education
Faculty of Arts and Humanities

Faculty of Arts & Humanities
Plymouth University
Drake Circus
Plymouth PL4 8AA

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E claire.butcher@plymouth.ac.uk
W www.plymouth.ac.uk

Professor Linda la Velle
Chair, Education Research
Ethics Sub-committee
Plymouth Institute of Education

Plymouth Institute of Education

Faculty of Arts and Humanities

Plymouth University

14th December 2017

Dear Mubarak

Request for Extension to Application 16/17-175: The perceptions of DHH students and specialists, regarding inclusive education and its barriers and supports in mainstream schools in Saudi Arabia

I am pleased to inform you that the Education Research Ethics Sub-committee has granted approval to you to modify your research as requested in your message dated 12.12.2017, subject to your undertaking to ensure that you will use a more formal phrase than "Deaf kids" when referring to the children of the parents whom you intend to interview.

Yours sincerely



Jan Georgeson

Acting Chair, Education Research Ethics Sub-committee

Plymouth Institute of Education Faculty of Arts and Humanities

Faculty of Arts & Humanities Plymouth University Drake Circus Plymouth PL4 8AA

T +44 (0)1752 585337 F +44 (0)1752 585328 E claire.butcher@plymouth.ac.uk

Appendix P: LEA letter to facilitate the researcher's task

<p>الرقم : ١٣٣٦</p> <p>التاريخ : ١٤٣٩/٤/١٣</p> <p>المرفقات :</p>	 وزارة التعليم Ministry of Education	<p>المملكة العربية السعودية</p> <p>وزارة التعليم</p> <p>٢٨٠</p> <p>الإدارة العامة للتعليم بمنطقة الرياض</p> <p>إدارة التخطيط والتطوير</p>
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تسهيل مهمة باحث

السجل المدني	الاسم	
١٠٢٢٠٥٣٨١١	مياريك غياض محمد العنزي	
الجامعة	الدرجة العلمية	العام الدراسي
جامعة بلايموث / بريطانيا	دكتوراه	١٤٣٩/١٤٣٨ هـ
عنوان البحث : وجهات نظر طلاب الصم وضعاف السمع ومعلميهم المتخصصين حول التعليم الشامل، العوائق والدعم المطلوب.		
عينة الدراسة : معلم اتربية الخاصة، طلاب صم وضعاف سمع .		

وفقه الله

المكرم قائد مدرسة

السلام عليكم ورحمة الله وبركاته ، وبعد :

إشارة إلى قرار معالي وزير التعليم رقم ٣٨٧١٧٠٨٠ وتاريخ ١٤٣٨/٥/١٣هـ بشأن تفويض الصلاحيات لمديري التعليم ، وبناءً على قرار مساعدة مدير عام التعليم بمنطقة الرياض رقم ٣٨٩٢٠٧٩٢ وتاريخ ١٤٣٨/٦/٢٣هـ بشأن تفويض الصلاحية لإدارة التخطيط والتطوير لتسهيل مهمة الباحثين والباحثات ، وحيث تقدم إلينا الباحث (الموضحة بياناته أعلاه) بطلب إجراء دراسته ، ونظراً لإكمال الأوراق المطلوبة ، نأمل تسهيل مهمته على أن تبدأ المهمة مع بداية الفصل الدراسي الثاني للعام ١٤٣٩/١٤٣٨ هـ . مع ملاحظة أن الباحث يتحمل كامل المسؤولية المتعلقة بمختلف جوانب البحث ، ولا يعني سماح الإدارة العامة للتعليم موافقتها بالضرورة على مشكلة البحث أو على الطرق والأساليب المستخدمة في دراستها ومعالجتها.

شاكرين لكم وتقبلوا تحياتي..

مدير إدارة التخطيط والتطوير


 سعود بن راشد آل عبد اللطيف

مسرة لجميع مكاتب العلم

Appendix Q: LEA letter of finishing the task

الرقم :	 وزارة التعليم Ministry of Education	المملكة العربية السعودية
التاريخ :		وزارة للتعليم
المرفقات :		٢٨٠
		الإدارة العامة للتعليم بمنطقة الرياض
		إدارة التخطيط والتطوير

(إفادة)

الموضوع: انتهاء مهمة باحث (مرحلة علمية)

اسم الباحث	مبارك غياض محمد العنزي
كلية / الجامعة	جامعة بلايموت / بريطانيا
رقم وتاريخ خطاب تسهيل مهمة البحث	١٣٣٦ وتاريخ ١٤٣٩/٤/١٣ هـ
عنوان الدراسة	وجهات نظر طلاب الصم وضعاف السمع ومعلميهم المتخصصين حول التعليم الشامل ، المواقف والدعم المطلوب .

إشارة إلى قرار معالي وزير التعليم رقم ٣٨٧١٧٠٨٠ وتاريخ ١٤٣٨/٥/١٢ هـ بشأن تفويض الصلاحيات لمديري التعليم ، وبناءً على قرار مساعدة مدير عام التعليم بمنطقة الرياض رقم ٣٨٩٢٠٧٩٣ وتاريخ ١٤٣٨/٦/٢٣ هـ بشأن تفويض الصلاحية لإدارة التخطيط والتطوير لتسهيل مهمة الباحثين والباحثات. وحيث تقدم إيتنا الباحث (الموضحة بياناته أعلاه) بطلب إجراء دراسته والتي بدأت من تاريخ رفع خطاب تسهيل المهمة من إدارة التخطيط والتطوير وحتى تاريخ ١٤٣٩/٥/١٣ هـ ، حسب إفادة قائد المدرسة (المرفق) ، وبناءً على طلبية تم منحه الإفادة.

مدير إدارة التخطيط والتطوير
 اسمعود بن راشد آل عبد اللطيف



من قسم الدراسات والبحوث

Appendix R: Information Sheets and Consent Forms



Information sheet interview participants

The perceptions of DHH students and specialists, regarding inclusive education and its barriers and supports in mainstream schools in Saudi Arabia

1st July 2017

Dear specialist teacher,

This research is about inclusive education for Deaf and Hard of Hearing (DHH) students in Saudi Arabia. The aim of this phase is to explore the experiences and perceptions of DHH students and specialists regarding inclusive education, and its barriers and required supports in mainstream schools in Saudi Arabia.

The researcher, Mubarak Alanazi, a PhD research student from Plymouth University - Institute of Education, will carry out this part of the project.

I would like you to participate in an interview, depending on your availability. This interview will take place in the meeting room in school and will last between 40 minutes and an hour. Firstly, I will ask you to describe the experience of DHH students and specialists in your school. Then, I will ask you to describe in detail what do you understand by the term 'inclusive education'. Next, I want to move into asking you about the barriers to implementing successful inclusion for DHH students. Finally, you will be asked about your perception regarding the supports required to promote inclusion for DHH students.

However, I will ask your permission to audio-record the interview. Should this be given, the recording will be fully transcribed and analysed. I will send you a copy of the transcript in Arabic for you to comment on or amend, if you would like. Your participation is voluntary, and you can withdraw from the research at any time up until I start to analyse the data, which will be two weeks after the date of your interview. You can ask for the audio-recording to be stopped at any time.

In addition I would like to observe where and how services are provided to DHH students. This will entail observations of students in arts and sports classes and during social times of the day. I would like to carry out these observations over 3 days. I have attached a copy of my observation schedule.

Furthermore, I assure you that all information given will be treated as confidential; I will not share anything that you tell me with anyone else in the school, or with parents. I will not name you or anyone in the report or in any publications arising from the research, and quotations, if they are used, will be unattributed. Furthermore, I undertake to remove any identifying details from the report.

Only my supervisory and examination team and I will have access to the project data, which will be used to inform my PhD thesis. All data relating to this project will be kept securely on password protected computers until ten years after the end of the project, when it will be destroyed in line with university policy.

I will also use data from this project to write presentations and academic publications about inclusive education for DHH students, and to offer recommendations to the government.

If you have any questions, please contact me:

Mubarak Alanazi Mubarak.alanazi@plymouth.ac.uk

Phone: 00966541442385.

Or Jan Georgeson (Director of Studies) janet.georgeson@plymouth.ac.uk phone: 01752 585348

With thanks for your participation in this research.



Information sheet interview participants

The perceptions of DHH students and specialists, regarding inclusive education and its barriers and supports in mainstream schools in Saudi Arabia

1st July 2017

Dear parent,

This research is about inclusive education for Deaf and Hard of Hearing (DHH) students in Saudi Arabia. The aim of this phase is to explore the experiences and perceptions of DHH students and specialists regarding inclusive education, and its barriers and required supports in mainstream schools in Saudi Arabia.

The researcher, Mubarak Alanazi, a PhD research student from Plymouth University - Institute of Education, will carry out this part of the project.

I would like your son to participate in an interview, depending on his availability. This interview will take place in the meeting room in school and will last between 40 minutes and an hour. Firstly, I will ask your son to describe the experience of DHH students and specialists in his school. Next, I want to move into asking your son about the barriers to implementing successful inclusion for DHH students. Finally, your son will be asked about his perception regarding the supports required to promote inclusion for DHH students.

However, I will ask your permission to audio-record the interview. Should this be given, the recording will be fully transcribed and analysed. I will send a copy of the transcript in Arabic for your son to comment on or amend, if your son would like. Your son's participation is voluntary, and your son can withdraw from the research at any time up until I start to analyse the data, which will be two weeks after the date of your son's interview. Your son can ask for the audio-recording to be stopped at any time.

In addition I would like to observe where and how services are provided to DHH students. This will entail observations of students in arts and sports classes and during social times of the day. I would like to carry out these observations over 3 days. I have attached a copy of my observation schedule.

Furthermore, I assure you that all information given will be treated as confidential; I will not share anything that you tell me with anyone else in the school, or with parents. I will not name your son or anyone in the report or in any publications arising from the research, and quotations, if they are used, will be unattributed. Furthermore, I undertake to remove any identifying details from the report.

If you agree, I would also like to attend classes of arts and sports to see your son taking part in activities with his peers.

Only my supervisory and examination team and I will have access to the project data, which will be used to inform my PhD thesis. All data relating to this project will be kept securely on password protected computers until ten years after the end of the project, when it will be destroyed in line with university policy.

I will also use data from this project to write presentations and academic publications about inclusive education for DHH students, and to offer recommendations to the government.

If you have any questions, please contact me:

Mubarak Alanazi Mubarak.alanazi@plymouth.ac.uk

Or Jan Georgeson (Director of Studies) janet.georgeson@plymouth.ac.uk phone: 01752 585348

With thanks for your participating in this research



Information sheet interview participants

The perceptions of DHH students and specialists, regarding inclusive education and its barriers and supports in mainstream schools in Saudi Arabia

1st July 2017

Dear student,

This research is about education for Deaf and Hard of Hearing students in Saudi Arabia. The aim is to explore their experiences and perceptions and what helps or hinders.

My name is Mubarak Alanazi, from Plymouth University - Institute of Education.

I would like you to participate in an interview. It will take about 20 minutes. We will meet in the meeting room. Firstly, I will ask you to describe your experience in your school. Next, I want to ask you about things that help, and things that hinder.

However, I will ask your permission to audio-record the interview. If you say yes, the recording will be transcribed. I will send a copy of the transcript in Arabic for you to look at and make changes, if you would like. You don't have to take part if you don't want to, and you can change your mind at any time up until I start to analyse the data, which will be two weeks time. You can ask for the audio-recording to be stopped at any time.

I will not name you in the report or in any thing I write about my research.

If you agree, I would also like to attend classes of arts and sports to see you taking part in activities with other children.

Only my supervisory team and I will see what you said. All data relating to this project will be kept securely.

I will also use data from this project to write presentations and papers for academic journals/conferences about inclusive education for Deaf and Hard of Hearing students.

If you have any questions, please contact me:

Mubarak Alanazi Mubarak.alanazi@plymouth.ac.uk

With thanks for your participating in this research

**The perceptions of Deaf and Hard of Hearing students and specialists, regarding
inclusive education and its barriers and supports in mainstream schools in Saudi
Arabia**

1st July 2017

Interview Consent Form for Specialist Teachers

- I understand that by signing this form, I am agreeing to take part in this project.
- I have heard and read the information about the project.
- I have been given the opportunity to ask questions.
- I understand I have the right to withdraw from the study in the next two weeks.
- I consent to this interview to be audio-recorded.

Name _____

Signature _____

Date _____

**The perceptions of Deaf and Hard of Hearing students and specialists, regarding
inclusive education and its barriers and supports in mainstream schools in Saudi
Arabia**

1st July 2017

Interview Consent Form for Parents

- I understand that by signing this form, I am agreeing that my son to take part in this project.
- I have heard and read the information about the project.
- I understand that my son has the right to withdraw from the study in the next two weeks.
- I consent to this interview with my son to be audio-recorded.
- I consent to the researcher observing classes attended by my son.

Name _____

Signature _____

Date _____



The perceptions of Deaf and Hard of Hearing students and specialists, regarding inclusive education and its barriers and supports in mainstream schools in Saudi Arabia

1st July 2017

Interview Consent Form for Students

- I understand that by signing this form, I am agreeing to take part in this project.
- I have heard and read the information about the project.
- I have been given the opportunity to ask questions.
- I am happy for my interview to be audio-recorded.
- I am happy for the researcher to attend classes.

Name _____

Signature _____

Date _____

Appendix S; Sample of interview script, analysing, and coding the emerged themes from the original interviews in Arabic, semi-structured interview schedule with specialist teacher (ST2).

Specialist Teacher (2): ST2.

First phase: Experience of DHH students and specialists in mainstream schools.

1. In which classroom activities are DHH students included alongside their hearing peers in your school?

1- ماهي الانشطة الصفية او المواد الدراسية التي يجلس بها الطالب مع السامعين في الفصل العادي؟
- لا يوجد فقط دمج الاثرية الرياضية والفنية اما باقي المواد الاخرى تكون داخل الفصول الخاصة مع معلم التربية الخاصة وقرانهم الصم او ضعاف السمع.

EX 3.1

2. In which extracurricular activities are DHH students included alongside their hearing peers in your school?

2- ماهي الانشطة اللاصفية التي يندمج بها الطالب مع السامعين بالمدرسة؟
- الانشطة اللاصفية خارج الصف الخاص التي يندمج بها الصم وضعاف السمع هي الطابور الصباحي - الفصح - الصلاة.

EX 4.3

EX 4.2 EX 4.1

3. Are there any services provided to DHH students when they in regular classrooms or only in separate places? Could you explain more about the services provided inside regular classrooms?

3- هل هناك خدمات مساندة تقدم للطالب عندما يجلس بالفصل العادي او في اماكن مفصولة؟ ممكن تشرح اكثر وين تقدم الخدمات المساندة؟
- الطالب الاصم وحتى ضعيف السمع لا يتلقى اي دعم او خدمات اثناء جلوسه في الفصل العادي فجميع الخدمات غالبا تقدم في غرف معزولة ولا تقدم له ايضا داخل الفصل الخاص الشئ الوحيد يقدم للصم هو ترجمة لغة الاشارة في الفصل الخاص من قبل معلم التربية الخاصة.
لكن في الانشطة اللاصفية ايضا تقدم له خدمة الترجمة بلغة الاشارة عن طريق معلم التربية الخاصة بينما في الفصل العادي يترك الطالب ومعلم الفصل بدون اي خدمات.

EX 5.2

4. What about the curriculum provided for DHH students - are there any modifications made to the curriculum?

4- كلمني عن المناهج المقدمة للطلاب - هل هناك تعديلات في هذه المناهج؟
المناهج هي مناهج التعليم العام مع حذف بعض التمارين اي نفس منهج التعليم العام مع التقليل - فمثلا التعليم العام ياخذوا 4 تمارين بينما يكتفي الصم ب 2 تمرين اي نفس المحتوى لكن مع التقليل فقط.
تجربتنا مع تطبيق مناهج العام كانت للأسف غير مرضي عنها لاسباب عديدة اهمها انه لم يؤخذ بالاعتبار اراء المعلمين المتخصصين بذلك اول ثلاث سنوات كنا مطالبين باعطاء المنهج كامل بتمارينه ودروسه مع نفس خطة التقييم مما ادى الى رسوب الكثر من الطلاب الصم واخفاقهم حتى رفعت شكوي كثيرة من قبل الاباء والمعلمين ثم بعد ذلك ترك لهم حق التغيير فهذا يدل على ان التخطيط في سن القوانين والتشريع يعتبر من اهم العوائق التي واجهناها في عملية الدمج وتمتد ايضا الى مايسمى بالتعليم الشامل وتطبيقه لاحقا.

EX 6.4

EX 6.3

EX 6.1

5. Who is more responsible for DHH students - regular school or the special program?

5- من هو المسؤول عن الطالب في هذا البرنامج معلم التربية الخاصة ام معلم التعليم العام؟
- المسؤول الاول والاخير عن الطالب الاصم هو معلم التربية الخاصة في احياء المناسبات الصفية واللاصفية وفي التقييم والمشاركات وجميع المناسبات معلوما التعليم العام ليس لهم اي علاقة.

EX 7.2

EX 2.1

6. Does this school is the neighbourhood school for DHH students? What is it?

6- هل هذي المدرسة هي مدرسة الحي للطلاب؟ ماهي اذن؟
- بالنسبة للطلاب الصم في السعودية فان الغالبية العظمى منهم لا يرسون في مدرسة الحي وغالبا ليست المدرسة التي يذهب لهل اخوته وابناء جيرانه - فالكثير منهم تعتبر مدارس بعيدة عن اماكن سكنهم خصوصا بمدينة الرياض التي تعتبر العاصمة واكبر مدن المملكة - في الرياض يوجد برنامج فقط للدمج شرق الرياض والاخر بالغرب - فهذه المدرسة تخدم كل الابناء الصم من احياء شرق الرياض ونفس البرنامج في الغرب بموقع المدرسة بشكل اشكالية كبير فالتلاميذ السامعين يحتاجون من 5 الى 10 دقائق للوصول لهذه المدرسة بينما الغالبية العظمى من الطلاب الصم يحتاجون مابين ساعة الى ساعة ونصف للوصول هنا.

BR 1.6

7. How would you label the experience of DHH students in your school? Why?

7- كيف تود ان تسمي تجربة الطلاب او الخيار التربوي في هذا البرنامج؟ لماذا؟
- حصول خاص كما هو واضح بان نصف الدور الارضي هو فصول خاصة للصم يمكن ملاحظة ذلك من الجميع وكما ان غالبية المواد الدراسية تعطى للصم في هذه الفصول الخاصة.

EX 9.3

8. Are you satisfied with the current provision for DHH students? Why/why not?

8- هل انت راضي عن البرنامج او التجربة الحالية لتعليم الطلاب في هذه الفصول؟ لماذا؟ لماذا لست راضي؟

ED3.1

انا جدا راضي كما اشجع التعليم الشامل ولكن كخيار تربوي يترك للاباء والطلاب الصم انفسهم - ارى ذلك لان الفصول الخاصة هي الحل الوسط ما بين التعليم الشامل والمعاهد الخاصة المعزولة - الفصول الخاصة تحفظ وتشجع على ابراز والحفاظ على ثقافة الصم وبنفس الوقت تشجع على تعلم الانتماء في ثقافة المجتمع الكبير. فلذا دمج الطالب بشكل كلي فان هذا سوف يقوض ثقافة الصم ولغة الإشارة و اذا عزل ايضا فان هذا سيعزله عن المجتمع الكبير وعدم اكتساب ثقافته.

ED3.2

9. What would be the best provision from your viewpoint?

9- ما هو الخيار التعليمي الافضل للطلاب الصم وضعاف السمع من وجهة نظرك؟ لماذا؟
ED3.1 الفصول الخاصة لضمان عدم تلاشي ثقافة الصم ولضمان اندماجهم في المجتمع الكبير وهذا بالنهاية يخدم ما يسمى بثانتي الثقافة ثانتي اللغة.

Second phase: Understanding Inclusive Education

1. What do you understand by the phrase 'inclusive education'?

1- ماذا تفهم او تدرك من عبارة التعليم الشامل؟

شمول جميع الطلاب بمختلف فروقهم الفردية ولا يوجد فرق بسبب الاعاقة - فالاعاقة تعتبر فرق عادي نفسه نفس اي فرق اخر بين الطلاب والذي يدعوا الى التنوع في الخبرات والمهارات والتجارب السمعية والبصرية وغيرها وهذا التنوع هو تنوع مهم في كسب الخبرة والثقافة مع مراعاة الفروق والاحتياجات الفردية لكل طالب.

U1.1

2. How would you distinguish between integration and inclusive education?

2- كيف تود ان تفرق بين التعليم الشامل والدمج؟

في التعليم الشامل توجد متابعة جيدة ويوجد انخراط اكثر للطلاب الصم وضعاف السمع في التربية والمجتمع ويوجد استعداد اكثر ايضا من الناحية التربوية والاجتماعية اذا ما طبق بالشكل الصحيح. U2.2
الدمج هم ممنوجون فقط بالانشطة الاجتماعية اللاصفية غالبا بينما التعليم الشامل يشمل الانشطة اللاصفية واكثر قدر ممكن من الانشطة التربوية الصفية بالاعتماد على امكانية الطالب.

3. Understanding model? When we want to educate DHH student, where we should look at, the level of needs only, level of ability only, or both? could you explain more please?

3- عندما نريد تعليم الاطفال الصم وضعاف السمع الى اين يجب ان ننظر الى مستوى الاحتياج فقط ام مستوى القدرات فقط ام كليهما؟ ممكن تشرح اكثر؟
انضري الى قدرة الطالب الاصم وضعيف السمع على انها قدرة ثمينه ولا انضري الى اعاقته فالمجتمع والبيئة التربوية هم اكثر المسؤولين عن تغيير عوائقهم بما يتناسب مع قدرة الطفل كي يتسنى لنا دمجهم بيننا. U3.1

Third phase: Barriers to Successful Inclusive Education

1. Do you believe that there will still be some barriers when inclusive education for DHH students has been implemented? What might the most influential barriers from your viewpoint? Why?

1- هل تعتقد ان سيكون هناك بعض عوائق عندما يتم تطبيق التعليم الشامل للطلاب الصم وضعاف السمع؟ ايهما ذو نفوذ اقوى من وجهة نظرك العوائق المتعلقة بالافراد والتربويين كيشير ام بالبيئة التربوية المدرسية؟ لماذا؟
BR3.1.1 بطبيعة الحال سيكون في البداية هناك الكثير من العوائق لكن مع الوقت سوف تتلاشى ولكن ارى غالبا ان العوائق المتعلقة بالافراد لها نفوذ اكثر في التعليم الشامل للصم وضعاف السمع لانها متعلقة بقدرات المعلمين والافراد المحيطين وكونها تحتاج وقت وجهد اطول كي تصقل مقارنة بالعوائق المتعلقة بالبيئة المدرسية والتي بتوفر المال قد تحل هذه المشكلة بليلة وضحاها.

BR3.2.1

2. Will there be more for Deaf or HH students? In what way?

2- هل ستكون هذه العوائق اكثر على الصم ام وضعاف السمع؟ كيف؟
- ستكون اكثر على الصم لان ضعف السمع لان ضعف السمع يستخدمون نفس لغة المجتمع المحلي مع اضطرابات بسيطة في نطق بعض الحروف ولكنهم بالنهاية يعتبرون سامعون جيدون مع استخدام المعينات السمعية. اما الطالب الاصم سيواجه صعوبات لغوية اكثر لان لغته (لغة الإشارة) تختلف اختلاف كلي عن لغة المجتمع مما يتطلب تواجد مستمر للمترجم في جميع المواد الدراسية والذي قد يشكل عائق.

3. What are the barriers to the successful inclusive education of DHH students?



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- 3- ماهي العوائق لتطبيق تعليم شامل ناجح للطلاب الصم وضعاف السمع من وجهة نظرك؟
 - قلة وعدم فعالية العزل الصوتي وكيفية الحصول على الهدوء بمدارس وفصول التعليم العام مع قلة وعدم التجهيزات التي تسبب تشتت للطلاب الصم وضعاف السمع.
 - عدم استخدام الأجهزة السمعية من المعينات والمكبروفونات بشكل عائق كبير في تعلم الطلاب الصم وضعاف السمع للدروس.
 - تدريب النطق له الدور الأكبر في تعليم الطلاب النطق والكلام واللغة والذي له دور كبير في التفاعل والانتماء مع الآخرين.
 - معلم الصف العادي هو الذي يلعب دور كبير كمصدر بشري والذي هو محور عملية التعليم الشامل - فان اي ضعف او عيب في المعلم العادي ينعكس سلبا على كل عملية التعليم الشامل وكل ادوار جميع التربويين والاختصاصيين الآخرين.

4. In what ways if any do involved people in inclusion pose barriers to successful inclusive education?

- 4- دعنا الان ننقل الى الحديث عن العوائق المتعلقة بالأفراد المعنيين في التعليم الشامل من جميع التربويين والاختصاصيين والاداريين والعائلات والطلاب والتي تشكل عائق امام التطبيق الناجح للتعليم الشامل للطلاب الصم وضعاف السمع؟
 - اذا تواجدت جميع التجهيزات والادوات فان عدم تقبل المعلم العادي للطلاب الاصم ينعكس سلبا على الاداء وتعلم الطالب. فالمعلم الذي يتقبل الطلاب السامعين ولا يتقبل الطلاب المعاق سمعيا بسبب توقعه للجهد الزائد الذي سيبدله يقود الى عدم المساواة وتشكيل عائق امام نجاح التعليم الشامل.
 - التدريب يعتبر مهم وخاصة قبل الختمة لانه يأخذ فترة ومحتوى تعليمي اكثر.
 - التفاعل والتواصل مع الصم من وجهة نظري ان لغة الاشارة تساعد بشكل كبير في انتماء الصم لكونها مصدر للتواصل وتوصيل المعلومات لكن اهمال التواصل مع الطالب الاصم من قبل الاقران السامعين هو الذي يشكل عائق اكبر فان عائلة الصم هم الذين يبدرون في التواصل ولكن غالبية هذه المبادرات تواجه بالاهمال غالبا والضحك والتهمك من قبل الاقران والسامعين كعائق للانتماء في التعليم الشامل.
 - عدم تعاون الادارات مع معلم الفصل ومعلم التربية الخاصة المستشار في التعليم الشامل يعتبر من عوائق النجاح لان الادارة والاشراف الناجح سينظم العملية التربوية للتعليم الشامل ويوزع الازوار بين معلم الفصل ومعلم التربية الخاصة والاختصاصيين الآخرين.
 - كما لا انصح معلم الفصل باستخدام طريقة تدريس واحدة بالفصل فلا بد من التنوع لتلبية جميع احتياجات الطلاب الذين هم متنوعون بالقدرات والاحتياجات كما لا انصح باجبار المعلم للطلاب بالانسجام مع طريقة تدريس واحدة.

5. Are there any more things you want to add about barriers to successful DHH inclusive education?

- 5- هل تود ان تضيف شي حول عوائق تطبيق تعليم شامل ناجح للطلاب الصم وضعاف السمع؟
 - لا اعتقد.

Fourth phase: Supports to Successful Inclusive Education

1. You mentioned that there are barriers against inclusive education; do you think that inclusive education of DHH student needs support to be successful? What kind of support?

- 1- كما ذكرت سابقا يوجد عوائق امام تطبيق التعليم الشامل للطلاب الصم وضعاف السمع. هل تعتقد ان هناك حاجة للدعم لنجاح التعليم الشامل؟
 ماتوع هذا الدعم؟

- لا بد ان يكون هناك دعم بإيدي ومعنوي كلاهما مهم في هذه المرحلة.

2. Who is most required to offer this support? Why?

- 2- من هو اكثر المطالبين لتوفير هذا الدعم؟ لماذا؟
 معلم التربية الخاصة والأسرة عن طريق تقديم للتغييرات الجديدة والحرص على تجهيز الطالب نفسيا لتقبل الوضع الجديد وتشجيعه على ان يكون في نفس الحي وبناء علاقات مع الاطفال والمعلمين في نفس الحي.

3. Who most needs to receive this support? Why?

- 3- من هو اكثر حاجة لتلقي هذا الدعم؟ لماذا؟
 الطلاب الصم وضعاف السمع يحتاج هذا الدعم بشكل كبير لانه هو المعني بعملية التعليم الشامل وهذا الدعم يكون من خلال تحضيره نفسيا واجتماعيا وتربويا.

4. What is required from the Ministry of Education and the Local Educational Authorities to support the successful inclusion of DHH students?

- 4- ماهو المطلوب من وزارة التربية وادارة التعليم لدعم التعليم الشامل للطلاب الصم وضعاف السمع؟
 عند سن التواين والتشريع للتعليم الشامل للطلاب الصم وضعاف السمع فان وزارة التربية والتعليم واي سلطه اخرى مطالبه بالاخذ بعين الاعتبار والاهتمام بآراء وخيرة الميدان في التربية الخاصة وتجربة معلمي التربية الخاصة والطلاب المعاقين سمعيا وعدم اهمالها في عملية انجاح التعليم الشامل لهم عن طريق التعاون والتفاعل والتواصل والمشاركة مع مدارس الدمج الحالية. طبعاً ذلك بعد تحضير كلاً التجهيزات المكنية وتوفير الادوات والاجهزة السمعية في البيئة المدرسية من السماعات والعزل واللوحات الارشادية وكل مايتعلق بلغة الاشارة وتوفير جميع الخدمات المساندة والبرامج المساندة

5. What is required from teacher colleges/universities for pre-service teachers, or educational training centres for in-service teachers to support the successful inclusion of DHH students? And which is more effective from your viewpoint? Why?

5- ماهو المطلوب من الجامعات وكليات المعلمين ومراكز التدريب التربوية لدعم نجاح التعليم الشامل للطلاب الصم وضعاف السمع؟ وماهو اكثر فعالية من وجهة نظرك التدريب قبل الخدمة ام اثناء الخدمة؟ لماذا؟
5P5.1
- الاهتمام بالكورسات التي تضم طرق التواصل مع الطلاب الصم وضعاف السمع لانها المفتاح الاساسي للتواصل والتفاعل ونجاح الشمولية.
- التعليم اثناء الخدمة لانه سوف يتعلم جميع المهارات التدريسية وتكون لديه الخبرة السابقة التي يستفاد منها اكثر وكذلك مع الممارسة فان المعلم يتعلم ويكسب مهارات اكثر لتجربتها مع المعاقين سمعياو ايضا خبرته مع الطلاب المتأخرين تكسيه الخبرة والصبر فكل ما يحتاجه هو دورات اثناء الخدمة وتكون مكسب له. SP5.5

6. What could all the involved people in inclusive school do to support the successful inclusion of DHH students? Who is you meant?

6- ماهو المطلوب من جميع الافراد المعنيين في المدارس العادية لدعم نجاح التعليم الشامل للطلاب الصم وضعاف السمع؟ من تقصد منهم بالضبط؟
BR1.1.3
- جميع التربويين والعاملين مع الطلاب ذوو الفقدان السمعى عليهم تقبل الطالب المعاق سمعيا وتقبل ايضا التعليم الشامل له كي ينخرط الطالب في مكانه التربوي والاجتماعي الاصلي وهي مدرسة الحي. فبعد هذا التقبل كل الامور والعوائق الاخرى ستزال وخصص بذلك معلم التعليم العام. SP6.1

7. Are there any more things you want to add about the supports required for the successful inclusive education of DHH students?

7- هل توجد اضافة شي اخر حول الدعم المطلوب لنجاح التعليم الشامل للطلاب الصم وضعاف السمع؟
- الافراد المعنيين بالتعليم الشامل يجب الاهتمام بهم اكثر لان البيئة المدرسية والتجهيزات الاخرى قد تجهز باي وقت وفورا - لكن الافراد والمصادر البشرية تحتاج وقت اطول في التدريب لتغيير مواقفهم اذا ماكانت غير بناءة.

BR 3.1.1

Appendix T; an Example of Coding from Transcribed and Translated Interviews.

- Extract (ST2) transcribed translated interview, codes applied for the Current Experience.

First phase; Current Experience In Mainstream Schools	Coded label
(Q4); Does this school is the neighbourhood school for DHH students? What is it?	Structures and Processes (St. Pr)
(ST2) <i>“Our students come from far neighbourhoods from the east, west, south, and north of the east of Riyadh”.</i>	Mainstream schools’ locations (EX1.1)

- Extract (ST5) transcribed translated interview, codes applied for the theme of inclusive education.

Second phase: Understanding Inclusive Education	Coded label
(Q2); How would you distinguish between integration and inclusive education?	Distinctive Inclusive Education (Di, In)
(ST5); <i>“Integration has limited inclusive practice in mainstream schools while inclusion aims to achieve more inclusive educational practices”.</i>	Practices (U2.3)

- Extract (ST3) transcribed translated interview, codes applied for the Barriers’ theme.

Third phase: Barriers to Successful Inclusive Education	Coded label
(Q4); In what ways if any do involved people in inclusion pose barriers to successful inclusive education?	Human-related Barriers (Hu. Br)
(ST3); <i>“The emphasis should be on continual training during the service where the skills and experiences could be developed to include their knowledge in DHH education”.</i>	In-service training (BR1.2.2)

- Extract (ST12) transcribed translated interview, codes applied for the Support’s theme.

Fourth phase: Supports to Successful Inclusive Education	Coded label
(Q4); What is required from the Ministry of Education and the Local Educational Authorities to support the successful inclusion of DHH students?	Support from Educational authorities (Sp. Ed. Au)
(ST12); <i>“The MoE should issue a law for inclusive education which obligates all sides to apply it and help to move it forward as a right for DHH students”.</i>	legislative support (SP4.2)